

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2017

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number: 1-33100

Owens Corning

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

43-2109021

(I.R.S. Employer
Identification No.)

One Owens Corning Parkway,
Toledo, OH

(Address of principal executive offices)

43659

(Zip Code)

(419) 248-8000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Common Stock, par value \$0.01 per share

Name of each exchange on which registered

New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

On June 30, 2017, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of \$0.01 par value common stock (the voting stock of the registrant) held by non-affiliates (assuming for purposes of this computation only that the registrant had no affiliates) was approximately \$7,451,085,912.

As of February 15, 2018, 111,747,431 shares of the registrant's common stock, par value \$0.01 per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Owens Corning's proxy statement to be delivered to stockholders in connection with the Annual Meeting of Stockholders to be held on or about April 19, 2018 (the "2018 Proxy Statement") are incorporated by reference into Part III hereof.

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PART I**ITEM 1. BUSINESS****OVERVIEW**

Owens Corning was founded in 1938. Since then, the Company has continued to grow as a market-leading innovator of glass fiber technology. Owens Corning is a world leader in composite and building materials systems, delivering a broad range of high-quality products and services. Our products range from glass fiber used to reinforce composite materials for transportation, electronics, marine, infrastructure, wind-energy and other high-performance markets to insulation and roofing for residential, commercial and industrial applications.

Unless the context indicates otherwise, the terms “Owens Corning,” “Company,” “we” and “our” in this report refer to Owens Corning and its subsidiaries. References to a particular year mean the Company’s year commencing on January 1 and ending on December 31 of that year.

SEGMENT OVERVIEW

The Company has three reportable segments: Composites, Insulation and Roofing. Our Composites, Insulation and Roofing reportable segments accounted for approximately 31%, 30% and 39% of our total reportable segment net sales, respectively, in 2017 .

Note 2 to the Consolidated Financial Statements contains information regarding net sales to external customers and total assets attributable to each of Owens Corning’s reportable segments and geographic regions, earnings before interest and taxes for each of Owens Corning’s reportable segments, and information concerning the dependence of our reportable segments on foreign operations, for each of the years 2017 , 2016 and 2015 .

Composites

Owens Corning glass fiber materials can be found in over 40,000 end-use applications within five primary markets: building and construction, transportation, consumer, industrial, and power and energy. Such end-use applications include pipe, roofing shingles, sporting goods, consumer electronics, telecommunications cables, boats, aviation, defense, automotive, industrial containers and wind-energy. Our products are manufactured and sold worldwide. We primarily sell our products directly to parts molders and fabricators. Within the building and construction market, our Composites segment sells glass fiber and/or glass mat directly to a small number of major shingle manufacturers, including our own Roofing segment.

Our Composites segment includes vertically integrated downstream activities. The Company manufactures, fabricates and sells glass reinforcements in the form of fiber. Glass reinforcement materials are also used downstream by the Composites segment to manufacture and sell glass fiber products in the form of fabrics, non-wovens and other specialized products.

Demand for composites is driven by general global economic activity and, more specifically, by the increasing replacement of traditional materials such as aluminum, wood and steel with composites that offer lighter weight, improved strength, lack of conductivity and corrosion resistance. We estimate that over the last 35 years, on average, annual global demand for composite materials grew at about 1.6 times global industrial production growth.

We compete with composite manufacturers worldwide. According to various industry reports and Company estimates, our Composites segment is a world leader in the production of glass fiber reinforcement materials. Primary methods of competition include innovation, quality, customer service and global geographic reach. For our commodity products, price is also a method of competition. Significant competitors to the Composites segment include China Jushi Group Co., Ltd., Chongqing Polycom International Corporation Ltd (CPIC), Johns Manville, Nippon Electric Glass Co. Ltd. (NEG) and Taishan Glass Fiber Co., Ltd.

Typically, our composites plants run continuously throughout the year, and we warehouse much of our production prior to sale since we operate primarily with short delivery cycles.

Insulation

Our insulating products help customers conserve energy, provide improved acoustical performance and offer convenience of installation and use. Our products in the residential channel include thermal and acoustical batts, loosefill insulation, foam sheathing and accessories, and are sold under well-recognized brand names and trademarks such as Owens Corning PINK[®] FIBERGLAS[™] Insulation. Our products in the commercial and industrial channel include glass fiber pipe insulation, energy efficient flexible duct media, bonded and granulated mineral wool insulation, cellular glass insulation and foam insulation used in above- and below-grade construction applications, and are sold under well-recognized brand names and trademarks such as Thermafiber[®],

ITEM 1. BUSINESS (continued)

FOAMGLAS[®] and the subsequently-acquired Paroc[®]. We sell our insulation products primarily to insulation installers, home centers, lumberyards, retailers and distributors in the United States, Canada, Europe and Asia-Pacific.

Demand for Owens Corning's insulating products is driven by new residential construction, remodeling and repair activity, commercial and industrial construction activity, increasingly stringent building codes and the growing need for energy efficiency. Demand in the segment typically follows seasonal home improvement, remodeling and renovation and residential, commercial and industrial construction industry patterns. Demand for new residential construction in North America typically follows housing starts on a three-month lagged basis, although the new residential construction cycle can elongate due to labor availability and other factors beyond our control. The peak season for home construction and remodeling in our geographic markets generally corresponds with the second and third calendar quarters. Demand for commercial and industrial applications is more heavily tied to industrial production growth in the global markets we serve.

Our Insulation segment competes primarily with manufacturers in the United States and, to a lesser extent, in other geographic regions. According to various industry reports and Company estimates, Owens Corning is North America's largest producer of residential, commercial and industrial insulation, and the second-largest producer of extruded polystyrene foam insulation. Principal methods of competition include innovation and product design, service, location, quality, price and compatibility of systems solutions. Significant competitors in this segment include CertainTeed Corporation, Dow Chemical, Johns Manville, Knauf Insulation and ROCKWOOL International.

Our Insulation segment includes a diverse portfolio of high, mid and low-temperature products with a geographic mix of United States, Canada, Europe, Asia-Pacific and Latin America, a market mix of residential, commercial, industrial and other markets, and a channel mix of retail, contractor and distribution.

Working capital practices for this segment historically have followed a seasonal cycle. Typically, our insulation plants run continuously throughout the year. This production plan, along with the seasonal nature of the segment, generally results in higher finished goods inventory balances in the first half of the year. Since sales increase during the second half of the year, our accounts receivable balances are typically higher during this period.

Roofing

Our primary products in the Roofing segment are laminate and strip asphalt roofing shingles. Other products include roofing components, synthetic packaging materials and oxidized asphalt. We have been able to meet the growing demand for longer lasting, aesthetically attractive laminate products with modest capital investment.

We sell shingles and roofing components primarily through home centers, lumberyards, retailers, distributors and contractors in the United States. Our synthetic packaging materials are used primarily in the construction industry for lumber and metal packaging. Oxidized asphalt is a significant input used in the production of our asphalt roofing shingles. We are vertically integrated and have manufacturing facilities that process asphalt for use in our roofing shingles manufacturing process. In addition, we sell processed asphalt to other shingle manufacturers, to roofing contractors for built-up roofing asphalt systems and to manufacturers in a variety of other industries, including automotive, chemical, rubber and construction. Asphalt input costs and third-party asphalt sales prices are correlated to crude oil prices. As a result, third-party asphalt sales are largely a cost-plus business.

Demand for products in our Roofing segment is generally driven by both residential repair and remodeling activity and by new residential construction. Roofing damage from major storms can significantly increase demand in this segment. As a result, sales in this segment do not always follow seasonal home improvement, remodeling and new construction industry patterns as closely as our Insulation segment.

Our Roofing segment competes primarily with manufacturers in the United States. According to various industry reports and Company estimates, Owens Corning's Roofing segment is the second largest producer of asphalt roofing shingles in the United States. Principal methods of competition include innovation and product design, proximity to customers, quality and price. Significant competitors in the Roofing segment include CertainTeed Corporation, GAF and TAMKO.

Our manufacturing operations are generally continuous in nature, and we warehouse much of our production prior to sale since we operate with relatively short delivery cycles. One of the raw materials important to this segment is sourced from a sole supplier. We have a long-term supply contract for this material, and have no reason to believe that any availability issues will exist. If this supply was to become unavailable, our production could be interrupted until such time as the supplies again became available or the Company reformulated its products. Additionally, the supply of asphalt, another significant raw material in this segment, has been constricted at times. Although this has not caused an interruption of our production in the past, prolonged asphalt shortages would restrict our ability to produce products in this segment.

ITEM 1. BUSINESS (continued)**GENERAL****Major Customers**

No one customer accounted for more than 10% of our consolidated net sales for 2017, 2016 or 2015. A significant portion of the net sales in our Insulation and Roofing segments are generated from large United States home improvement retailers.

Intellectual Property

The Company relies on a combination of intellectual property laws, as well as confidentiality procedures and contractual provisions, to protect our intellectual property, proprietary technology and our brands. Through continuous and extensive use of the color PINK since 1956, Owens Corning became the first owner of a single color trademark registration. In addition to our Owens Corning and PINK brands, the Company has registered, and applied for the registration of, U.S. and international trademarks, service marks, and domain names. Additionally, the Company has filed U.S. and international patent applications, including numerous issued patents, covering certain of our proprietary technology resulting from research and development efforts. Over time, the Company has assembled a portfolio of intellectual property rights including patents, trademarks, service marks, copyrights, domain names, know-how and trade secrets covering our products, services and manufacturing processes. Our proprietary technology is not dependent on any single or group of intellectual property rights and the Company does not expect the expiration of existing intellectual property to have a material adverse affect on the business as a whole. The Company believes the duration of our patents is adequate relative to the expected lives of our products. Although the Company protects its intellectual property and proprietary technology, any significant impairment of, or third-party claim against, our intellectual property rights could harm our business or our ability to compete.

Backlog

Our customer volume commitments are generally short-term, and the Company does not have a significant backlog of orders.

Research and Development

The Company's research and development expense during each of the last three years is presented in the table below (in millions):

Period	Research and Development Expense	
Twelve Months Ended December 31, 2017	\$	85
Twelve Months Ended December 31, 2016	\$	82
Twelve Months Ended December 31, 2015	\$	73

Environmental Control

Owens Corning has established policies and procedures to ensure that its operations are conducted in compliance with all relevant laws and regulations and that enable the Company to meet its high standards for corporate sustainability and environmental stewardship. Our manufacturing facilities are subject to numerous foreign, federal, state and local laws and regulations relating to the presence of hazardous materials, pollution and protection of the environment, including emissions to air, discharges to water, management of hazardous materials, handling and disposal of solid wastes, and remediation of contaminated sites. All Company manufacturing facilities operate using an ISO 14001 or equivalent environmental management system. The Company's 2020 Sustainability Goals require significant global reductions in energy use, water consumption, waste to landfill, emissions of greenhouse gases, fine particulate matter and toxic air emissions. The Company is dedicated to continuous improvement in our environmental, health and safety performance and to achieving its 2020 Sustainability Goals.

The Company has not experienced a material adverse effect upon our capital expenditures or competitive position as a result of environmental control legislation and regulations. Operating costs associated with environmental compliance were approximately \$32 million in 2017. The Company continues to invest in equipment and process modifications to remain in compliance with applicable environmental laws and regulations worldwide.

Our manufacturing facilities are subject to numerous national, state and local environmental protection laws and regulations. Regulatory activities of particular importance to our operations include those addressing air pollution, water pollution, waste disposal and chemical control. It is possible that new laws and regulations will specifically address climate change, toxic air emissions, ozone forming emissions and fine particulate matter. New environmental and chemical regulations could impact our ability to expand production or construct new facilities in every geographic region in which we operate. However, based on

ITEM 1. BUSINESS (continued)

information known to the Company, including the nature of our manufacturing operations and associated air emissions, at this time we do not expect any of these new laws, regulations or activities to have a material adverse effect on our results of current operations, financial condition or long-term liquidity.

Owens Corning is involved in remedial response activities and is responsible for environmental remediation at a number of sites, including certain of its currently owned or formerly owned plants. These responsibilities arise under a number of laws, including, but not limited to, the Federal Resource Conservation and Recovery Act, and similar state or local laws pertaining to the management and remediation of hazardous materials and petroleum. The Company has also been named a potentially responsible party under the United States Federal Superfund law, or state equivalents, at a number of disposal sites. The Company became involved in these sites as a result of government action or in connection with business acquisitions. At the end of 2017, the Company was involved with a total of 20 sites worldwide, including 7 Superfund sites and 13 owned or formerly owned sites. None of the liabilities for these sites are individually significant to the Company.

Remediation activities generally involve a potential range of activities and costs related to soil and groundwater contamination. This can include pre-cleanup activities such as fact finding and investigation, risk assessment, feasibility studies, remedial action design and implementation (where actions may range from monitoring to removal of contaminants, to installation of longer-term remediation systems). A number of factors affect the cost of environmental remediation, including the number of parties involved in a particular site, the determination of the extent of contamination, the length of time the remediation may require, the complexity of environmental regulations, variability in clean-up standards, the need for legal action, and changes in remediation technology. Taking these factors into account, Owens Corning has predicted the costs of remediation reasonably estimated to be paid over a period of years. The Company accrues an amount on an undiscounted basis, consistent with the reasonable estimates of these costs when it is probable that a liability has been incurred. Actual cost may differ from these estimates for the reasons mentioned above.

During the fourth quarter of 2017, the Company recorded a \$15 million environmental liability charge to Other expenses, net on the Consolidated Statements of Earnings in the Corporate, Other and Eliminations reporting category, primarily as a result of changes in estimable remediation costs at a single closed U.S. site owned by the Company. Factors contributing to this change in estimate included the complexity of environmental regulations at the site and the completion of a remedial action work plan. The Company expects this recorded amount to be paid over the next ten years, with the majority of the costs expected to be paid over the next three years. At December 31, 2017, the Company had an accrual totaling \$17 million for its environmental liabilities, of which the current portion is \$11 million. Changes in required remediation procedures or timing of those procedures at existing legacy sites, or discovery of contamination at additional sites, could result in material increases to the Company's environmental obligations.

Number of Employees

As of December 31, 2017, Owens Corning had approximately 17,000 employees. Approximately 8,000 of such employees are subject to collective bargaining agreements. The Company believes that its relations with employees are good.

AVAILABILITY OF INFORMATION

Owens Corning makes available, free of charge, through its website, the Company's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission. These documents are available through the Investor Relations page of the Company's website at www.owenscorning.com.

ITEM 1A. RISK FACTORS**RISKS RELATED TO OUR BUSINESS AND OUR INDUSTRY****Low levels of residential or commercial construction activity can have a material adverse impact on our business and results of operations.**

A large portion of our products are used in the markets for residential and commercial construction and repair and remodeling. Demand for certain of our products is affected in part by the level of new residential construction in the United States, although typically not until a number of months after the change in the level of construction. Lower demand in the regions and markets where our products are sold could result in lower revenues and lower profitability. Historically, construction activity has been cyclical and is influenced by prevailing economic conditions, including the level of interest rates and availability of financing,

ITEM 1A. RISK FACTORS (continued)

inflation, employment levels, consumer spending habits, consumer confidence and other macroeconomic factors outside our control.

We face significant competition in the markets we serve and we may not be able to compete successfully.

All of the markets we serve are highly competitive. We compete with manufacturers and distributors, both within and outside the United States, in the sale of building products and composite products. Some of our competitors may have superior financial, technical, marketing and other resources than we do. In some cases, we face competition from manufacturers in countries able to produce similar products at lower costs. We also face competition from the introduction by competitors of new products or technologies that may address our customers' needs in a better manner, whether based on considerations of pricing, usability, effectiveness, sustainability, quality or other features or benefits. If we are not able to successfully commercialize our innovation efforts, we may lose market share. Price competition or overcapacity may limit our ability to raise prices for our products when necessary, may force us to reduce prices and may also result in reduced levels of demand for our products and cause us to lose market share. In addition, in order to effectively compete, we must continue to develop new products that meet changing consumer preferences and successfully develop, manufacture and market these new products. Our inability to effectively compete could result in the loss of customers and reduce the sales of our products, which could have a material adverse impact on our business, financial condition and results of operations.

Our sales may fall rapidly in response to declines in demand because we do not operate under long-term volume agreements to supply our customers and because of customer concentration in certain segments.

Many of our customer volume commitments are short-term; therefore, we do not have a significant manufacturing backlog. As a result, we do not benefit from the hedge provided by long-term volume contracts against downturns in customer demand and sales. Further, we are not able to immediately adjust our costs in response to declines in sales. In addition, although no single customer represents more than 10% of our annual sales, our ability to sell some of the products in Insulation and Roofing are dependent on a limited number of customers, who account for a significant portion of such sales. The loss of key customers for these products, a consolidation of key customers or a significant reduction in sales to those customers, could significantly reduce our revenues from these products. In addition, if key customers experience financial pressure or consolidate, they could attempt to demand more favorable contractual terms, which would place additional pressure on our margins and cash flows. Lower demand for our products, loss of key customers and material changes to contractual terms could materially and adversely impact our business, financial condition and results of operations.

Worldwide economic conditions and credit tightening could have a material adverse impact on the Company.

The Company's business may be materially and adversely impacted by changes in United States or global economic conditions, including global industrial production rates, inflation, deflation, interest rates, availability of capital, consumer spending rates, energy availability and commodity prices, trade laws, and the effects of governmental initiatives to manage economic conditions. Changes in and/or new laws, regulations and policies that may be enacted in the United States or elsewhere could also materially impact economic conditions and the Company's business and results of operations. Volatility in financial markets and the deterioration of national and global economic conditions could materially adversely impact the Company's operations, financial results and/or liquidity including as follows:

- the financial stability of our customers or suppliers may be compromised, which could result in reduced demand for our products, additional bad debts for the Company or non-performance by suppliers;
- one or more of the financial institutions syndicated under the credit agreement governing our revolving credit facility may cease to be able to fulfill their funding obligations, which could materially adversely impact our liquidity;
- it may become more costly or difficult to obtain financing or refinance the Company's debt in the future;
- the value of the Company's assets held in pension plans may decline; and/or
- the Company's assets may be impaired or subject to write-down or write-off.

Uncertainty about global economic conditions may cause consumers of our products to postpone spending in response to tighter credit, negative financial news and/or declines in income or asset values. This could have a material adverse impact on the demand for our products and on our financial condition and operating results. A deterioration of economic conditions would likely exacerbate these adverse effects and could result in a wide-ranging and prolonged impact on general business conditions, thereby negatively impacting our operations, financial results and/or liquidity.

ITEM 1A. RISK FACTORS (continued)

Our level of indebtedness could adversely impact our business, financial condition or results of operations.

Our debt level and degree of leverage could have important consequences, including the following:

- our ability to obtain additional debt or equity financing for working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes may be limited;
- a substantial portion of our cash flow from operations could be required for the payment of principal and interest on our indebtedness, and may not be available for other business purposes;
- certain of our borrowings are at variable rates of interest, exposing us to the risk of increased interest rates;
- if due to liquidity needs we must replace any indebtedness upon maturity, we would be exposed to the risk that we may not be able to refinance such indebtedness;
- our ability to adjust to changing market conditions may be limited and place us at a competitive disadvantage compared to our competitors that have less debt; and
- we may be vulnerable in a downturn in general economic conditions or in our business, or we may be unable to carry out important capital spending.

In addition, the credit agreement governing our senior credit facility, the indentures governing our senior notes, the receivables purchase agreement governing our receivables securitization facility and any term loan agreement in place contain various covenants that impose operating and financial restrictions on us and/or our subsidiaries. Additionally, instruments and agreements governing our future indebtedness may impose other restrictive conditions or covenants that could restrict our ability to conduct our business operations or pursue growth strategies.

Adverse weather conditions and the level of severe storms could have a material adverse impact on our results of operations.

Weather conditions and the level of severe storms can have a significant impact on the markets for residential and commercial construction, repair and improvement, which can in turn impact our business as follows:

- generally, any weather conditions that slow or limit residential or commercial construction activity can adversely impact demand for our products; and
- a portion of our annual product demand is attributable to the repair of damage caused by severe storms. In periods with below average levels of severe storms, demand for such products could be reduced.

Lower demand for our products as a result of either of these scenarios could adversely impact our business, financial condition and results of operations. Additionally, severely low temperatures may lead to significant and immediate spikes in costs of natural gas, electricity and other commodities that could negatively affect our results of operation.

Our operations require substantial capital, leading to high levels of fixed costs that will be incurred regardless of our level of business activity.

Our businesses are capital intensive, and regularly require capital expenditures to expand operations, maintain equipment, increase operating efficiency and comply with applicable laws and regulations, leading to high fixed costs, including depreciation expense. Also, increased regulatory focus could lead to additional or higher costs in the future. We are limited in our ability to reduce fixed costs quickly in response to reduced demand for our products and these fixed costs may not be fully absorbed, resulting in higher average unit costs and lower gross margins if we are not able to offset this higher unit cost with price increases. Alternatively, we may be limited in our ability to quickly respond to unanticipated increased demand for our products, which could result in an inability to satisfy demand for our products and loss of market share.

We may be exposed to increases in costs of energy, materials and transportation or reductions in availability of materials and transportation, which could reduce our margins and have a material adverse impact on our business, financial condition and results of operations.

Our business relies heavily on certain commodities and raw materials used in our manufacturing processes. Additionally, we spend a significant amount on natural gas inputs and services that are influenced by energy prices, such as asphalt, a large number of chemicals and resins and transportation costs. Price increases for these inputs could raise costs and reduce our margins if we are not able to offset them by increasing the prices of our products, improving productivity or hedging where appropriate. In particular, energy prices could increase as a result of climate change legislation or other environmental mandates. Availability of certain of

ITEM 1A. RISK FACTORS (continued)

the raw materials we use has, from time to time, been limited, and our sourcing of some of these raw materials from a limited number of suppliers, and in some cases a sole supplier, increases the risk of unavailability. For example, if one of the raw materials important to our business is sourced from a sole supplier, our production could be interrupted regardless of whether we have a long-term supply contract for the material. Despite our contractual supply agreements with many of our suppliers, it is possible that we could experience a lack of certain raw materials which could limit our ability to produce our products, thereby materially and adversely impacting our business, financial condition and results of operations.

Our results of operations in a given period may be impacted by price volatility in certain wind-generated energy markets in the United States.

In connection with our sustainability goals to reduce greenhouse gas and toxic air emissions, we entered into contracts in the United States, pursuant to which we have agreed to purchase wind-generated electricity from third parties. Under these contracts, we do not take physical delivery of wind-generated electricity. The generated electricity is instead sold by our counterparties to local grid operators at the prevailing market price and we obtain the associated non-tax renewable energy credits. The prevailing market pricing for wind-generated electricity can be affected by factors beyond our control and is subject to significant period over period volatility. For example, wind-generated energy output fluctuates due to climactic and other factors beyond our control and can be constrained by available transmission capacity, thereby significantly impacting pricing. Due to this potential volatility, it is possible that these contracts could have an impact on our results of operations in a given reporting period.

We are subject to risks relating to our information technology systems, and any failure to adequately protect our critical information technology systems could materially affect our operations.

We rely on information technology systems across our operations, including for management, supply chain and financial information and various other processes and transactions. Our ability to effectively manage our business depends on the security, reliability and capacity of these systems. Information technology system failures, network disruptions or breaches of security could disrupt our operations, causing delays or cancellation of customer orders or impeding the manufacture or shipment of products, processing of transactions or reporting of financial results. An attack or other problem with our systems could also result in the disclosure of proprietary information about our business or confidential information concerning our customers or employees, which could result in significant damage to our business and our reputation.

We have put in place security measures designed to protect against the misappropriation or corruption of our systems, intentional or unintentional disclosure of confidential information, or disruption of our operations. However, advanced cybersecurity threats, such as computer viruses, attempts to access information, and other security breaches, are persistent and continue to evolve making them increasingly difficult to identify and prevent. Protecting against these threats may require significant resources, and we may not be able to implement measures that will protect against all of the significant risks to our information technology systems. In addition, we rely on a number of third party service providers to execute certain business processes and maintain certain information technology systems and infrastructure, and any breach of security on their part could impair our ability to effectively operate. Moreover, our operations in certain geographic locations may be particularly vulnerable to security attacks or other problems. Any breach of our security measures could result in unauthorized access to and misappropriation of our information, corruption of data or disruption of operations or transactions, any of which could have a material adverse effect on our business.

ITEM 1A. RISK FACTORS (continued)**We are subject to risks associated with our international operations.**

We sell products and operate plants throughout the world. Our international sales and operations are subject to risks and uncertainties, including:

- difficulties and costs associated with complying with a wide variety of complex and changing laws, including securities laws, tax laws, employment and pension-related laws, competition laws, U.S. and foreign export and trading laws, and laws governing improper business practices, treaties and regulations;
- limitations on our ability to enforce legal rights and remedies;
- adverse domestic or international economic and political conditions, business interruption, war and civil disturbance;
- changes to tax, currency, or other laws or policies that may adversely impact our ability to repatriate cash from non-United States subsidiaries, make cross-border investments, or engage in other intercompany transactions;
- future regulatory guidance and interpretations of the recently-enacted tax legislation commonly known as the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act"), as well as assumptions that the Company makes related to the Tax Act;
- changes to tariffs or other import or export restrictions or penalties, including modification or elimination of international agreements covering trade or investment;
- costs and availability of shipping and transportation;
- nationalization of properties by foreign governments;
- currency exchange rate fluctuations between the United States dollar and foreign currencies; and
- uncertainty with respect to any potential changes to laws, regulations and policies that could exacerbate the risks described above.

As we continue to expand our business globally, we may have difficulty anticipating and effectively managing these and other risks that our international operations may face, which may adversely impact our business, financial condition and results of operations.

In addition, we operate in many parts of the world that have experienced governmental corruption and we could be adversely affected by violations of the Foreign Corrupt Practices Act (FCPA) and similar worldwide anti-corruption laws. The FCPA and similar anti-corruption laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to officials for the purpose of obtaining or retaining business. Although we mandate compliance with these anti-corruption laws and maintain an anti-corruption compliance program, we cannot provide assurance that these measures will necessarily prevent violations of these laws by our employees or agents. If we were found to be liable for violations of anti-corruption laws, we could be liable for criminal or civil penalties or other sanctions, which could have a material adverse impact on our business, financial condition and results of operations.

The Company's income tax net operating loss and U.S. foreign tax credit carryforwards may be limited and our results of operations may be adversely impacted.

The Company has substantial deferred tax assets related to both U.S. federal and state net operating losses (NOLs) and U.S. foreign tax credits (FTCs) for income tax purposes, which the Company expects generally are available, with some exceptions, to offset future taxable income. However, the Company's ability to utilize or realize the current carrying value of the NOLs and FTCs may be impacted by certain events, such as changes in tax legislation or the interpretation thereof, or insufficient future taxable income prior to expiration of the NOLs and FTCs, or annual limits imposed under sections 382 and 383 of the Internal Revenue Code, or by state law, as a result of a change in control. A change in control is generally defined as a cumulative change of more than 50% in the ownership positions of certain stockholders during a rolling three year period. Changes in the ownership positions of certain stockholders could occur as the result of stock transactions by such stockholders and/or by the issuance of stock by the Company. Such limitations may cause the Company to pay income taxes earlier and in greater amounts than would be the case if the NOLs and FTCs were not subject to such limitations. Additionally, uncertainty exists with respect to future regulatory guidance and interpretations of the Tax Act, as well as assumptions that the Company makes related to the Tax Act, which could have an impact on the use of the Company's NOLs and FTCs.

ITEM 1A. RISK FACTORS (continued)

Should the Company determine that it is likely that its recorded NOL and FTC benefits are not realizable, the Company would be required to reduce the NOL and FTC tax benefit reflected on its financial statements to the net realizable amount either by a direct adjustment to the NOL and FTC tax benefit or by establishing a valuation allowance and recording a corresponding charge to current earnings. The corresponding charge to current earnings would have an adverse effect on the Company's financial condition and results of operations in the period in which it is recorded. Conversely, if the Company is required to increase its NOL and FTC tax benefit either by a direct adjustment or reversing any portion of the accounting valuation allowance against its deferred tax assets related to its NOLs and FTCs, such credit to current earnings could have a positive effect on the Company's business, financial condition and results of operations in the period in which it is recorded. As of December 31, 2017, a valuation allowance was established on the unrealizable amount of FTCs.

Our intellectual property rights may not provide meaningful commercial protection for our products or brands and third parties may assert that we violate their intellectual property rights, which could adversely impact our business, financial condition and results of operations.

Owens Corning relies on its intellectual property, including numerous patents, registered trademarks, trade secrets, confidential information, as well as its licensed intellectual property. We monitor and protect against activities that might infringe, dilute, or otherwise harm our patents, trademarks and other intellectual property and rely on the patent, trademark and other laws of the United States and other countries. However, we may be unable to prevent third parties from using our intellectual property without our authorization. To the extent we cannot protect our intellectual property, unauthorized use and misuse of our intellectual property could harm our competitive position and have a material adverse impact on our business, financial condition and results of operations. In addition, the laws of some non-United States jurisdictions provide less protection for our proprietary rights than the laws of the United States and we therefore may not be able to effectively enforce our intellectual property rights in these jurisdictions. If we are unable to maintain certain exclusive licenses, our brand recognition and sales could be adversely impacted. Current employees, contractors and suppliers have, and former employees, contractors and suppliers may have, access to trade secrets and confidential information regarding our operations which could be disclosed improperly and in breach of contract to our competitors or otherwise used to harm us.

Third parties may also claim that we are infringing upon their intellectual property rights. If we are unable to successfully defend or license such alleged infringing intellectual property or if we are required to substitute similar technology from another source, our operations could be adversely affected. Even if we believe that such intellectual property claims are without merit, defending such claims can be costly, time consuming and require significant resources. Claims of intellectual property infringement also might require us to redesign affected products, pay costly damage awards, or face injunctions prohibiting us from manufacturing, importing, marketing or selling certain of our products. Even if we have agreements to indemnify us, indemnifying parties may be unable or unwilling to do so.

Our hedging activities to address energy price fluctuations may not be successful in offsetting increases in those costs or may reduce or eliminate the benefits of any decreases in those costs.

In order to mitigate short-term variation in our operating results due to commodity price fluctuations in certain geographic markets, we may hedge a portion of our near-term exposure to the cost of energy, primarily natural gas. The results of our hedging practices could be positive, neutral or negative in any period depending on price changes of the hedged exposures.

Our hedging activities are not designed to mitigate long-term commodity price fluctuations and, therefore, will not protect us from long-term commodity price increases. In addition, in the future, our hedging positions may not correlate to our actual energy costs, which would cause acceleration in the recognition of unrealized gains and losses on our hedging positions in our operating results.

Downgrades of our credit ratings could adversely impact us.

Our credit ratings are important to our cost of capital. The major debt rating agencies routinely evaluate our debt based on a number of factors, which include financial strength and business risk as well as transparency with rating agencies and timeliness of financial reporting. A downgrade in our debt rating could result in increased interest and other expenses on our existing variable interest rate debt, and could result in increased interest and other financing expenses on future borrowings. Downgrades in our debt rating could also restrict our access to capital markets and affect the value and marketability of our outstanding notes.

ITEM 1A. RISK FACTORS (continued)

Increases in the cost of labor, union organizing activity, labor disputes and work stoppages at our facilities could delay or impede our production, reduce sales of our products and increase our costs.

The costs of labor are generally increasing, including the costs of employee benefit plans. We are subject to the risk that strikes or other types of conflicts with personnel may arise or that we may become the subject of union organizing activity at additional facilities. In particular, renewal of collective bargaining agreements typically involves negotiation, with the potential for work stoppages or increased costs at affected facilities.

We could face potential product liability and warranty claims, we may not accurately estimate costs related to such claims, and we may not have sufficient insurance coverage available to cover such claims.

Our products are used and have been used in a wide variety of residential and commercial applications. We face an inherent business risk of exposure to product liability or other claims in the event our products are alleged to be defective or that the use of our products is alleged to have resulted in harm to others or to property. We may in the future incur liability if product liability lawsuits against us are successful. Moreover, any such lawsuits, whether or not successful, could result in adverse publicity to us, which could cause our sales to decline.

In addition, consistent with industry practice, we provide warranties on many of our products and we may experience costs of warranty or breach of contract claims if our products have defects in manufacture or design or they do not meet contractual specifications. We estimate our future warranty costs based on historical trends and product sales, but we may fail to accurately estimate those costs and thereby fail to establish adequate warranty reserves for them. We maintain insurance coverage to protect us against product liability claims, but that coverage may not be adequate to cover all claims that may arise or we may not be able to maintain adequate insurance coverage in the future at an acceptable cost. Any liability not covered by insurance or that exceeds our established reserves could materially and adversely impact our business, financial condition and results of operations.

We may be subject to liability under and may make substantial future expenditures to comply with environmental laws and regulations.

Our manufacturing facilities are subject to numerous foreign, federal, state and local laws and regulations relating to the presence of hazardous materials, pollution and the protection of the environment, including those governing emissions to air, discharges to water, use, storage and transport of hazardous materials, storage, treatment and disposal of waste, remediation of contaminated sites and protection of worker health and safety.

Liability under these laws involves inherent uncertainties. Environmental liability estimates may be affected by changing determinations of what constitutes an environmental exposure or an acceptable level of cleanup. For example, remediation activities generally involve a potential range of activities and costs related to soil and groundwater contamination. This can include pre-cleanup activities such as fact finding and investigation, risk assessment, feasibility studies, remedial action design and implementation (where actions may range from monitoring to removal of contaminants, to installation of longer-term remediation systems). Please see "Item 1 - Business - Environmental Control" for information on costs and accruals related to environmental remediation. To the extent that the required remediation procedures or timing of those procedures change, additional contamination is identified, or the financial condition of other potentially responsible parties is adversely affected, the estimate of our environmental liabilities may change. Change in required remediation procedures or timing of those procedures at existing legacy sites, or discovery of contamination at additional sites, could result in increases to our environmental obligations. Violations of environmental, health and safety laws are subject to civil, and, in some cases, criminal sanctions. As a result of these uncertainties, we may incur unexpected interruptions to operations, fines, penalties or other reductions in income which could adversely impact our business, financial condition and results of operations. It is possible that new laws and regulations will specifically address climate change, toxic air emissions, ozone forming emissions and fine particulate matter. New environmental and chemical regulations could impact our ability to expand production or construct new facilities in every geographic region in which we operate. Continued and increased government and public emphasis on environmental issues is expected to result in increased future investments for environmental controls at ongoing operations, which will be charged against income from future operations. Present and future environmental laws and regulations applicable to our operations, and changes in their interpretation, may require substantial capital expenditures or may require or cause us to modify or curtail our operations, which may have a material adverse impact on our business, financial condition and results of operations.

ITEM 1A. RISK FACTORS (continued)

We will not be insured against all potential losses and could be seriously harmed by natural disasters, catastrophes or sabotage.

Many of our business activities globally involve substantial investments in manufacturing facilities and many products are produced at a limited number of locations. These facilities could be materially damaged by natural disasters such as floods, tornados, hurricanes and earthquakes or by sabotage. We could incur uninsured losses and liabilities arising from such events, including damage to our reputation, and/or suffer material losses in operational capacity, which could have a material adverse impact on our business, financial condition and results of operations.

We depend on our senior management team and other skilled and experienced personnel to operate our business effectively, and the loss of any of these individuals or the failure to attract additional personnel could adversely impact our financial condition and results of operations.

We are highly dependent on the skills and experience of our senior management team and other skilled and experienced personnel. These individuals possess sales, marketing, manufacturing, logistical, financial, business strategy and administrative skills that are important to the operation of our business. We cannot assure that we will be able to retain all of our existing senior management personnel. The loss of any of these individuals or an inability to attract additional personnel could prevent us from implementing our business strategy and could adversely impact our business and our future financial condition or results of operations.

We are subject to various legal and regulatory proceedings, including litigation in the ordinary course of business, and uninsured judgments or a rise in insurance premiums may adversely impact our business, financial condition and results of operations.

In the ordinary course of business, we are subject to various legal and regulatory proceedings, which may include but are not limited to those involving antitrust, tax, environmental, intellectual property and other matters, including general commercial litigation. Any claims raised in legal and regulatory proceedings, whether with or without merit, could be time consuming and expensive to defend and could divert management's attention and resources. Additionally, the outcome of legal and regulatory proceedings may differ from our expectations because the outcomes of these proceedings are often difficult to predict reliably. Various factors and developments can lead to changes in our estimates of liabilities and related insurance receivables, where applicable, or may require us to make additional estimates, including new or modified estimates that may be appropriate due to a judicial ruling or judgment, a settlement, regulatory developments or changes in applicable law. A future adverse ruling, settlement or unfavorable development could result in charges that could have a material adverse effect on our results of operations in any particular period.

In accordance with customary practice, we maintain insurance against some, but not all, of these potential claims. In the future, we may not be able to maintain insurance at commercially acceptable premium levels. In addition, the levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. If any significant judgment or claim is not fully insured or indemnified against, it could have a material adverse impact on our business, financial condition and results of operations.

If our efforts in acquiring and integrating other businesses, establishing joint ventures or expanding our production capacity are not successful, our business may not grow.

We have historically grown our business through acquisitions, joint ventures and the expansion of our production capacity. Our ability to grow our business through these investments depends upon our ability to identify, negotiate and finance suitable arrangements. If we cannot successfully execute on our investments or receive any required regulatory approvals on a timely basis, we may be unable to generate sufficient revenue to offset acquisition, integration or expansion costs, we may incur costs in excess of what we anticipate, and our expectations of future results of operations, including cost savings and synergies, may not be achieved. Acquisitions, joint ventures and production capacity expansions involve substantial risks, including:

ITEM 1A. RISK FACTORS (continued)

- unforeseen difficulties in operations, technologies, products, services, accounting and personnel;
- diversion of financial and management resources from existing operations;
- unforeseen difficulties related to entering geographic regions, markets or product lines where we do not have prior experience;
- risks relating to obtaining sufficient public or private financing;
- difficulty in integrating the acquired business' standards, processes, procedures and controls with our existing operations;
- potential loss of key employees;
- unanticipated competitive responses;
- potential loss of customers; and
- undisclosed or undiscovered liabilities or claims.

Our failure to address these risks or other problems encountered in connection with our past or future acquisitions and investments could cause us to fail to realize the anticipated benefits of such acquisitions or investments, incur unanticipated liabilities, and harm our business generally. Future acquisitions and investments could also result in dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities, or amortization expenses, or write-offs of goodwill, any of which could have a material adverse impact on our business, financial condition and results of operations. Also, the anticipated benefits of our investments may not materialize.

Our ongoing efforts to increase productivity and reduce costs may not result in anticipated savings in operating costs.

Our cost reduction and productivity efforts, including those related to our existing operations, production capacity expansions and new manufacturing platforms, may not produce anticipated results. Our ability to achieve cost savings and other benefits within expected time frames is subject to many estimates and assumptions. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays, or if other unforeseen events occur, our business, financial condition and results of operations could be adversely impacted.

Significant changes in the factors and assumptions used to measure our defined benefit plan obligations, actual investment returns on pension assets and other factors could have a negative impact on our financial condition or liquidity.

We have certain defined benefit pension plans and other post-employment benefit (OPEB) plans. Our future funding requirements for defined benefit pension and OPEB plans depend upon a number of factors and assumptions, including our actual experience against assumptions with regard to interest rates used to determine funding levels; return on plan assets; benefit levels; participant experience (e.g., mortality and retirement rates); health care cost trends; and applicable regulatory changes. To the extent actual results are less favorable than our assumptions, there could be a material adverse impact on our financial condition and results of operations.

Additional risks exist due to the nature and magnitude of our investments, including the implementation of or changes to the investment policy, insufficient market capacity to absorb a particular investment strategy or high volume transactions, and the inability to quickly rebalance illiquid and long-term investments.

As of December 31, 2017 and 2016, our U.S. and worldwide defined benefit pension plans were underfunded by a total of \$250 million and \$363 million, respectively, and OPEB obligations were underfunded by \$230 million and \$225 million, respectively. If our cash flows and capital resources are insufficient to fund our pension or OPEB obligations, we could be forced to reduce or delay investments and capital expenditures, seek additional capital, or restructure or refinance our indebtedness.

If we were required to write down all or part of our goodwill or other indefinite-lived intangible assets, our results of operations or financial condition could be materially adversely affected in a particular period.

Declines in the Company's business may result in an impairment of the Company's tangible and intangible assets which could result in a material non-cash charge. A significant or prolonged decrease in the Company's market capitalization, including a decline in stock price, or a negative long-term performance outlook, could result in an impairment of its tangible and intangible assets which results when the carrying value of the Company's assets exceed their fair value. At least annually, the Company

ITEM 1A. RISK FACTORS (continued)

assesses goodwill and intangible assets for impairment. Since the Company utilizes a discounted cash flow methodology to calculate the fair value of its reporting units, weak demand for a specific product line or business could result in an impairment. Accordingly, any determination requiring the write-off of a significant portion of goodwill or intangible assets could negatively impact the Company's results of operations.

RISKS RELATED TO OWNERSHIP OF OUR COMMON STOCK**The market price of our common stock is subject to volatility.**

The market price of our common stock could be subject to wide fluctuations in response to numerous factors, many of which are beyond our control. These factors include actual or anticipated variations in our operational results and cash flow, our earnings relative to our competition, changes in financial estimates by securities analysts, trading volume, sales by holders of large amounts of our common stock, short selling, market conditions within the industries in which we operate, seasonality of our business operations, the general state of the securities markets and the market for stocks of companies in our industry, governmental legislation or regulation and currency and exchange rate fluctuations, as well as general economic and market conditions, such as recessions.

We are a holding company with no operations of our own and depend on our subsidiaries for cash.

As a holding company, most of our assets are held by our direct and indirect subsidiaries and we will primarily rely on dividends and other payments or distributions from our subsidiaries to meet our debt service and other obligations and to enable us to pay dividends. The ability of our subsidiaries to pay dividends or make other payments or distributions to us will depend on their respective operating results and may be restricted by, among other things, the laws of their jurisdiction of organization (which may limit the amount of funds available for the payment of dividends or other payments), agreements of those subsidiaries, agreements with any co-investors in non-wholly-owned subsidiaries, the terms of our credit facility and senior notes and the covenants of any future indebtedness we or our subsidiaries may incur.

Provisions in our amended and restated certificate of incorporation and bylaws or Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and therefore depress the trading price of our common stock.

Our amended and restated certificate of incorporation and bylaws contain provisions that could depress the trading price of our common stock through provisions that may discourage, delay or prevent a change in control of our Company or changes in our management that our stockholders may deem advantageous.

Additionally, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder and which may discourage, delay or prevent a change in control of our company.

Dividends on our common stock are declared at the discretion of our Board of Directors.

Since February 2014, the Board has declared a quarterly dividend on our common stock. The payment of any future cash dividends to our stockholders is not guaranteed and will depend on decisions that will be made by our Board of Directors and will depend on then-existing conditions, including our operating results, financial conditions, contractual restrictions, corporate law restrictions, capital agreements, applicable laws of the State of Delaware and business prospects.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES**Composites**

Our Composites segment operates out of 29 manufacturing facilities. During 2017, we announced plans to expand our operations in India, and we expect this capacity to be available later in 2018. Principal manufacturing facilities for our Composites segment, all of which are owned by the Company, include the following:

Aiken, South Carolina	Jackson, Tennessee
Amarillo, Texas	Kimchon, Korea
Anderson, South Carolina	L'Ardoise, France
Besana, Italy	Rio Claro, Brazil
Chambery, France	Taloja, India
Gastonia, North Carolina	Tlaxcala, Mexico
Gous, Russia	Yuhang, China

Insulation

Our Insulation segment operates out of 35 manufacturing facilities. This figure and listing below excludes the facilities of our 2018 acquisition of Paroc Group Oy, whose European facilities are primarily located in the Nordic region and Eastern Europe. We began operations in our recently constructed Joplin, Missouri facility in 2017. Principal manufacturing facilities for our Insulation segment, all of which are owned by the Company, include the following:

Delmar, New York	Rockford, Illinois
Edmonton, Alberta, Canada	Santa Clara, California
Fairburn, Georgia	Sedalia, Missouri
Guangzhou, Guandong, China	Tallmadge, Ohio
Joplin, Missouri	Tessengerlo, Belgium
Kansas City, Kansas	Toronto, Ontario, Canada
Mexico City, Mexico	Wabash, Indiana
Newark, Ohio	Waxahachie, Texas

Roofing

Our Roofing segment operates out of 35 total manufacturing facilities. This number separately counts many roofing and asphalt manufacturing facilities that are located at the same site. Principal manufacturing facilities for our Roofing segment, all of which are owned by the Company, include the following:

Brookville, Indiana	Minneapolis, Minnesota
Denver, Colorado	Portland, Oregon
Irving, Texas	Qingdao, China
Kearny, New Jersey	Savannah, Georgia
Medina, Ohio	Silvassa, India
Memphis, Tennessee	Summit, Illinois

We believe that these properties are in good condition and well maintained, and are suitable and adequate to carry on our business. The capacity of each plant varies depending upon product mix.

Our principal executive offices are located in the Owens Corning World Headquarters, Toledo, Ohio, an owned facility of approximately 400,000 square feet. Our research and development activities are primarily conducted at our Science and Technology Center, located on approximately 500 acres of land owned by the Company outside of Granville, Ohio. It consists of approximately 20 structures totaling more than 650,000 square feet. In addition, we have application development and other product and market focused research and development centers in various locations.

ITEM 3. LEGAL PROCEEDINGS

Environmental Legal Proceedings

In March 2017, Owens Corning Insulating Systems, LLC (OCIS) received a Notice of Violation (NOV) from the California Bay Area Quality Management District (the “District”) alleging that the OCIS facility in Santa Clara, California began operation of a rebuilt furnace without obtaining required air emission permits. In July 2017, OCIS resolved the NOV with the District by entering into a Compliance and Enforcement Agreement (the “Agreement”). Under the Agreement, OCIS paid the District a total penalty of \$115,000. OCIS entered into the Agreement to expedite settlement of the matter and does not admit any conduct or condition in violation of any District regulation.

In July 2017, Owens Corning (Shanghai) Fiberglas Co., Ltd., (OCSF) received a NOV from the Shanghai Environmental Protection Agency (“Shanghai”) alleging that the OCSF facility in Shanghai had exceeded Shanghai air emission standards for certain air pollutants. In September 2017, OCSF and Shanghai negotiated a resolution to the NOV under which OCSF agreed to pay Shanghai a penalty of 700,000 Chinese Yuan. This penalty was paid in October 2017. At the time of payment, the penalty amounted to approximately \$105,000.

Litigation, Other Regulatory Proceedings and Environmental Matters

Additional information required by this item is incorporated by reference to Note 15, Contingent Liabilities and Other Matters.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

EXECUTIVE OFFICERS OF OWENS CORNING

The name, age and business experience during the past five years of Owens Corning's executive officers as of January 1, 2018 are set forth below. Each executive officer holds office until his or her successor is elected and qualified or until his or her earlier resignation, retirement or removal. All those listed have been employees of Owens Corning during the past five years except as indicated.

<u>Name and Age</u>	<u>Position*</u>
Brian D. Chambers (51)	President, Roofing since October 2014; formerly Vice President and General Manager, Roofing (2013)
Julian Francis (51)	President, Insulation since October 2014; formerly Vice President and General Manager, Residential Insulation (2012)
Arnaud Genis (53)	President, Composites since 2010
Ava Harter (48)	Senior Vice President, General Counsel and Secretary since May 2015; formerly General Counsel, Chief Compliance Officer and Corporate Secretary, Taleris America LLC (2012)
Michael C. McMurray (52)	Senior Vice President and Chief Financial Officer since August 2012
Kelly J. Schmidt (52)	Vice President, Controller since April 2011
Daniel T. Smith (52)	Senior Vice President, Organization and Administration since November 2014; formerly Senior Vice President, Information Technology and Human Resources (2012)
Michael H. Thaman (53)	President and Chief Executive Officer since December 2007 and Chairman of the Board since April 2002; Director since 2002

* Information in parentheses indicates year during the past five years in which service in position began. The last item listed for each individual represents the position held by such individual at the beginning of the five-year period.

Part II**ITEM 5. MARKET FOR OWENS CORNING'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES****Market Information**

Owens Corning's common stock trades on the New York Stock Exchange under the symbol "OC." The following table sets forth the high and low sales prices per share of, and dividends declared on, Owens Corning common stock for each quarter from January 1, 2016 through December 31, 2017 :

Period	High	Low	Declared Dividend
First Quarter 2016	\$ 47.78	\$ 38.96	\$ 0.18
Second Quarter 2016	\$ 52.52	\$ 45.46	\$ 0.18
Third Quarter 2016	\$ 58.69	\$ 50.33	\$ 0.18
Fourth Quarter 2016	\$ 56.12	\$ 46.45	\$ 0.20
First Quarter 2017	\$ 62.79	\$ 50.77	\$ 0.20
Second Quarter 2017	\$ 67.74	\$ 59.26	\$ 0.20
Third Quarter 2017	\$ 78.31	\$ 63.89	\$ 0.20
Fourth Quarter 2017	\$ 92.85	\$ 73.45	\$ 0.21

Holders of Common Stock

The number of stockholders of record of Owens Corning's common stock on February 15, 2018 was 426.

Cash Dividends

The payment of any future cash dividends to our stockholders will depend on decisions that will be made by our Board of Directors and will depend on then existing conditions, including our operating results, financial conditions, contractual restrictions, corporate law restrictions, capital agreements, applicable laws of the State of Delaware and business prospects.

Under the credit agreement applicable to our senior revolving credit facility, the Company may not declare a cash dividend if a default or event of default exists or would come to exist at the time of declaration or if a dividend declaration violates the provisions of our formation documents or other material agreements.

The Company's subsidiaries are subject to certain restrictions on their ability to pay dividends under the agreements governing our senior revolving credit facility and our receivables securitization facility.

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

None.

ITEM 5. MARKET FOR OWENS CORNING’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES (continued)

Issuer Purchases of Equity Securities

The following table provides information about Owens Corning’s purchases of its common stock during the three months ended December 31, 2017 :

Period	Total Number of Shares (or Units) Purchased	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs**	Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs**
October 1-31, 2017	827	\$ 79.28	—	7,493,976
November 1-30, 2017	818	82.54	—	7,493,976
December 1-31, 2017	418	87.66	—	7,493,976
Total	2,063 *	\$ 82.27	—	7,493,976

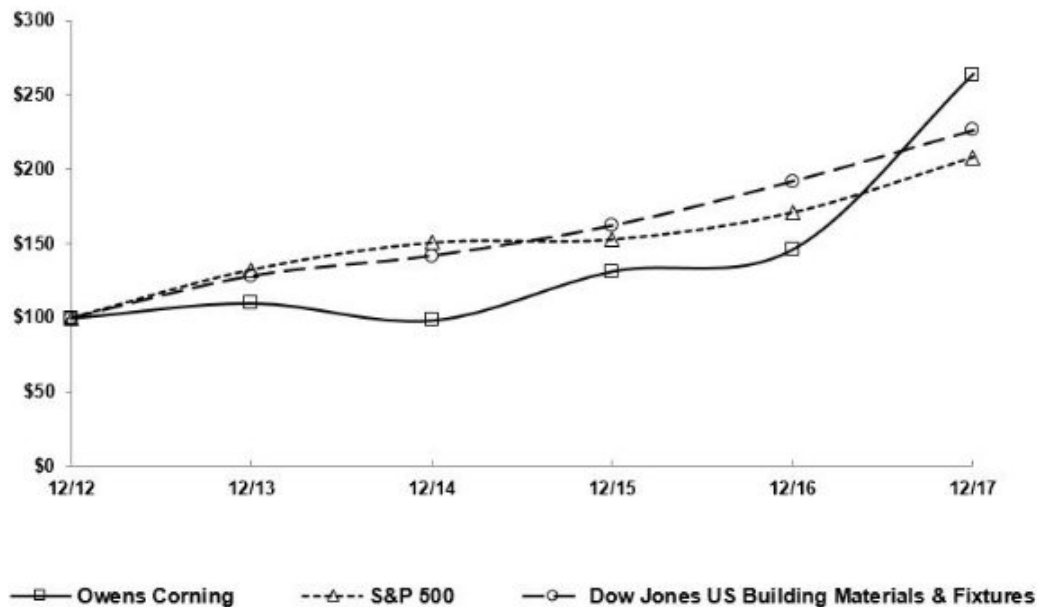
* The Company retained 827, 818 and 418 shares surrendered to satisfy tax withholding obligations in connection with the vesting of restricted shares granted to our employees in October, November and December, respectively.

** On October 24, 2016, the Board of Directors approved a share buy-back program under which the Company is authorized to repurchase up to 10 million shares of the Company’s outstanding common stock (the “Repurchase Authorization”). The Repurchase Authorization enables the Company to repurchase shares through open market, privately negotiated, or other transactions. The actual number of shares repurchased will depend on timing, market conditions and other factors and is at the Company’s discretion. The Company did not repurchase any shares of its common stock during the three months ended December 31, 2017 under the Repurchase Authorization. As of December 31, 2017, approximately 7.5 million shares remain available for repurchase under the Repurchase Authorization.

ITEM 5. MARKET FOR OWENS CORNING'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES (continued)

Performance Graph

The annual changes for the five-year period shown in the graph on this page are based on the assumption that \$100 had been invested in Owens Corning (OC) stock, the Standard & Poor's 500 Stock Index ("S&P 500") and the Dow Jones U.S. Building Materials & Fixtures Index ("DJ Bld. Mat.") on December 31, 2012, and that all quarterly dividends were reinvested. The total cumulative dollar returns shown on the graph represent the value that such investments would have had on December 31, 2017.



Performance Graph

	2012	2013	2014	2015	2016	2017
OC	\$ 100	\$ 110	\$ 99	\$ 131	\$ 146	\$ 264
S&P 500	\$ 100	\$ 132	\$ 151	\$ 153	\$ 171	\$ 208
DJ Bld. Mat.	\$ 100	\$ 128	\$ 142	\$ 162	\$ 192	\$ 226

ITEM 6. SELECTED FINANCIAL DATA

	Twelve Months Ended December 31,				
	2017(a)	2016(b)	2015(c)	2014(d)	2013(e)
(in millions, except per share amounts)					
Statement of Earnings Data					
Net sales	\$ 6,384	\$ 5,677	\$ 5,350	\$ 5,260	\$ 5,295
Gross margin	\$ 1,572	\$ 1,381	\$ 1,153	\$ 976	\$ 966
Marketing and administrative expenses	\$ 620	\$ 584	\$ 525	\$ 487	\$ 530
Earnings before interest and taxes	\$ 737	\$ 699	\$ 548	\$ 392	\$ 385
Interest expense, net	\$ 107	\$ 108	\$ 100	\$ 114	\$ 112
Loss (gain) on extinguishment of debt	\$ 71	\$ 1	\$ (5)	\$ 46	\$ —
Income tax expense	\$ 269	\$ 188	\$ 120	\$ 5	\$ 68
Net earnings	\$ 290	\$ 399	\$ 334	\$ 228	\$ 205
Net earnings attributable to Owens Corning	\$ 289	\$ 393	\$ 330	\$ 226	\$ 204
Earnings per common share attributable to Owens Corning common stockholders					
Basic	\$ 2.59	\$ 3.44	\$ 2.82	\$ 1.92	\$ 1.73
Diluted	\$ 2.55	\$ 3.41	\$ 2.79	\$ 1.91	\$ 1.71
Dividend	\$ 0.81	\$ 0.74	\$ 0.68	\$ 0.64	\$ —
Weighted-average common shares					
Basic	111.5	114.4	117.2	117.5	118.2
Diluted	113.2	115.4	118.2	118.3	119.1
Balance Sheet Data					
Total assets	\$ 8,632	\$ 7,741	\$ 7,326	\$ 7,483	\$ 7,572
Long-term debt, net of current portion	\$ 2,405	\$ 2,099	\$ 1,702	\$ 1,978	\$ 2,012
Total equity	\$ 4,204	\$ 3,889	\$ 3,779	\$ 3,730	\$ 3,830

- (a) During 2017, the Company recorded \$48 million of restructuring costs, comprised of \$27 million of severance, \$17 million of accelerated depreciation and \$4 million of other exit costs. In connection with our previously announced acquisitions, mainly Pittsburgh Corning Corporation and Pittsburgh Corning Europe NV (collectively "Pittsburgh Corning"), we recognized \$15 million of acquisition-related costs and a \$5 million charge related to inventory fair value step-up. Other significant items included \$64 million of pension settlement losses from risk mitigation actions, a \$15 million environmental liability charge for a closed U.S. site, partially offset by a \$29 million litigation settlement gain, net of legal fees. Outside of earnings before interest and taxes, the Company also recorded a \$71 million loss on debt extinguishment and an \$82 million non-cash income tax charge related to the Tax Act.
- (b) During 2016, the Company recorded \$28 million of restructuring costs, comprised of \$19 million of accelerated depreciation, \$6 million of facility-related charges and \$3 million of personnel-related charges. In connection with our previously announced acquisitions, mainly InterWrap Holdings, Inc. ("InterWrap"), we recognized \$9 million of acquisition-related costs and a \$10 million charge related to inventory fair value step-up.
- (c) During 2015, the Company recorded \$2 million of restructuring costs. This was comprised of a \$6 million benefit from changes in severance estimates and pension-related adjustments, offset by \$3 million in accelerated depreciation and \$5 million in other exit costs.
- (d) During 2014, the Company recorded \$36 million of restructuring costs, comprised of \$34 million of severance costs, \$3 million of contract termination costs, and partially offset by \$1 million of other related gains. There was also a gain of \$45 million related to the sale of the Hangzhou, China facility, a \$20 million loss related to the sale of the European Stone Business, \$3 million related to the impairment loss on Alcala, Spain facility, and \$6 million related to Hurricane Sandy costs. Outside of earnings before interest and taxes, the Company recorded a \$46 million loss on debt extinguishment.
- (e) During 2013, the Company recorded \$26 million of restructuring costs, comprised of \$8 million of severance costs, \$9 million of accelerated depreciation and \$9 million in other exit costs. There was also \$20 million in accelerated depreciation related to a change in the useful life of assets and a \$15 million net gain related to Hurricane Sandy insurance activity.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis (MD&A) is intended to help investors understand Owens Corning, our operations and our present business environment. MD&A is provided as a supplement to, and should be read in conjunction with, our Consolidated Financial Statements and the accompanying Notes thereto contained in this report. Unless the context requires otherwise, the terms "Owens Corning," "Company," "we" and "our" in this report refer to Owens Corning and its subsidiaries.

GENERAL

Owens Corning is a leading global producer of glass fiber reinforcements and other materials for composites and of residential and commercial building materials. The Company has three reporting segments: Composites, Insulation and Roofing. Through these lines of business, the Company manufactures and sells products worldwide. We maintain leading market positions in many of our major product categories.

EXECUTIVE OVERVIEW

Net earnings attributable to Owens Corning were \$289 million in 2017 compared to \$393 million in 2016. The Company reported \$737 million in earnings before interest and taxes (EBIT) in 2017 compared to \$699 million in 2016. The Company generated \$855 million in adjusted earnings before interest and taxes ("Adjusted EBIT") in 2017 compared to \$746 million in 2016. See the Adjusted Earnings Before Interest and Taxes paragraph of MD&A for further information regarding EBIT and Adjusted EBIT, including the reconciliation to net earnings attributable to Owens Corning. Segment EBIT performance compared to 2016 increased \$51 million in our Insulation segment, increased \$49 million in our Roofing segment and increased \$27 million in our Composites segment. Within our Corporate, Other and Eliminations category, General corporate expenses and other increased by \$18 million.

In our Insulation segment, EBIT in 2017 was \$177 million compared to \$126 million in 2016, primarily due to higher sales and production volumes, higher selling prices and the impact of our Pittsburgh Corning acquisition. In our Roofing segment, EBIT in 2017 was \$535 million compared to \$486 million in 2016, primarily driven by higher sales volumes, as overall input cost inflation was largely offset by higher selling prices. In our Composites segment, EBIT in 2017 was \$291 million compared to \$264 million in 2016, primarily driven by lower furnace rebuild and startup costs.

In 2017, the Company's operating activities provided \$1,016 million of cash flow, compared to \$943 million in 2016. While net earnings were lower than the prior year, the measurement of cash provided by operating activities does not include the effects of significant non-cash charges and debt extinguishment financing activities.

On June 27, 2017, the Company acquired all outstanding equity of Pittsburgh Corning Corporation and Pittsburgh Corning Europe NV (collectively, "Pittsburgh Corning"), the world's leading producer of cellular glass insulation systems for commercial and industrial markets, for approximately \$563 million, net of cash acquired. This acquisition expands the Company's position in commercial and industrial product offerings and grows its presence in Europe and Asia. Pittsburgh Corning's operating results since the date of acquisition and a preliminary purchase price allocation have been included in the Company's Insulation segment in the Consolidated Financial Statements.

On February 5, 2018, the Company acquired all outstanding equity of Paroc Group Oy ("Paroc"), a leading producer of mineral wool insulation for building and technical applications in Europe, for an enterprise value of approximately \$1.1 billion (900 million Euro). The acquisition of Paroc expands the Company's mineral wool technology, grows its presence in the European insulation market, provides access to a variety of new end-use markets and will increase the Insulation segment's geographic sales mix outside of the U.S. and Canada. Operating results of the acquisition will be included in the Company's Insulation segment within the Consolidated Financial Statements beginning February 5, 2018. The Company is in the process of valuing certain assets and liabilities, and the purchase price allocation will be completed with finalization of these valuations.

Throughout 2017 and in January 2018, the Company had several financing activities associated with our acquisitions. In June 2017, the Company issued \$600 million of 2047 notes with an annual interest rate of 4.30%, and used a portion of the proceeds to fund the purchase of Pittsburgh Corning. In July 2017, a portion of the proceeds was used by the Company to repay all of its outstanding 2019 senior notes and a portion of its outstanding 2036 senior notes, resulting in a \$71 million loss on extinguishment of debt. In October 2017, the Company obtained term loan commitments totaling \$900 million that were available to be used, in part, to potentially pay a portion of the purchase of the Paroc acquisition. In January 2018, the Company issued \$400 million of 2048 senior notes with an annual interest rate of 4.40%. The proceeds from the senior notes, along with borrowings on a \$600 million term loan commitment and the Receivables Securitization Facility, were used to fund the purchase of Paroc in February 2018.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

In 2017, the Company repurchased 2.3 million shares of the Company's common stock for \$142 million under a previously announced repurchase authorization. As of December 31, 2017, 7.5 million shares remain available for repurchase under the Repurchase Authorization.

RESULTS OF OPERATIONS

Consolidated Results (in millions)

	Twelve Months Ended December 31,		
	2017	2016	2015
Net sales	\$ 6,384	\$ 5,677	\$ 5,350
Gross margin	\$ 1,572	\$ 1,381	\$ 1,153
<i>% of net sales</i>	25%	24%	22%
Marketing and administrative expenses	\$ 620	\$ 584	\$ 525
Other expenses, net	\$ 130	\$ 16	\$ 7
Earnings before interest and taxes	\$ 737	\$ 699	\$ 548
Interest expense, net	\$ 107	\$ 108	\$ 100
Loss (gain) on extinguishment of debt	\$ 71	\$ 1	\$ (5)
Income tax expense	\$ 269	\$ 188	\$ 120
Net earnings attributable to Owens Corning	\$ 289	\$ 393	\$ 330

The Consolidated Results discussion below provides a summary of our results and the trends affecting our business, and should be read in conjunction with the more detailed Segment Results discussion that follows.

NET SALES

2017 Compared to 2016: Net sales increased by \$707 million in 2017 as compared to 2016. The increase in net sales was driven by higher sales volumes in all three segments, as well as the acquisitions of Pittsburgh Corning into our Insulation segment and InterWrap into our Roofing segment.

2016 Compared to 2015: Net sales increased by \$327 million in 2016 as compared to 2015. The increase in net sales was driven by higher sales volumes in our Roofing and Composites segments and the impact of the InterWrap acquisition. This increase was partially offset by lower sales volumes in our Insulation segment and the negative impact of translating sales denominated in foreign currencies into U.S. dollars, primarily in our Composites and Insulation segments.

GROSS MARGIN

2017 Compared to 2016: Gross margin as a percentage of net sales in 2017 was relatively flat compared to 2016. The \$ 191 million improvement was primarily driven by higher sales volumes in all three segments, the gross margin contribution from our acquisitions of InterWrap and Pittsburgh Corning and lower furnace rebuild and startup costs in our Composites segment.

2016 Compared to 2015: Gross margin as a percentage of net sales in 2016 increased about two percentage points compared to 2015. The \$228 million improvement was primarily driven by our Roofing segment's higher sales volumes and the benefit of lower input costs, primarily asphalt. The negative impact of production curtailments in our Insulation segment and restructuring and acquisition-related costs were largely offset by the gross margin contribution from the InterWrap acquisition.

RESTRUCTURING AND ACQUISITION-RELATED COSTS

The Company has incurred restructuring, transaction and integration costs related to acquisitions, along with restructuring costs in connection with its global cost reduction and productivity initiatives. These costs are recorded in the Corporate, Other and Eliminations category. Please refer to Notes 7 and 11 of the Consolidated Financial Statements for further information on the nature of these costs.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

The following table presents the impact and respective location of these income (expense) items on the Consolidated Statements of Earnings (in millions):

	Location	Twelve Months Ended December 31,		
		2017	2016	2015
Restructuring costs	Cost of sales	\$ (20)	\$ (25)	\$ (10)
Restructuring costs	Other expenses, net	(28)	(3)	8
Acquisition-related costs	Marketing and administrative expenses	(6)	(6)	—
Acquisition-related costs	Other expenses, net	(9)	(3)	—
Recognition of acquisition inventory fair value step-up	Cost of sales	(5)	(10)	—
Total restructuring, acquisition and integration-related costs		\$ (68)	\$ (47)	\$ (2)

MARKETING AND ADMINISTRATIVE EXPENSES

2017 Compared to 2016: Marketing and administrative expenses increased by \$36 million in 2017 compared to 2016. The increase was primarily due to higher selling, general and administrative expenses associated with our acquisitions and higher performance-based compensation.

2016 Compared to 2015: Marketing and administrative expenses increased by \$59 million in 2016 compared to 2015. The increase was primarily due to higher selling, general and administrative expenses in our Roofing segment (including InterWrap marketing and administrative expenses), higher performance based compensation and acquisition-related costs.

OTHER EXPENSES, NET

2017 Compared to 2016: Other expenses, net increased \$114 million in 2017 compared to 2016. The increase was primarily driven by \$64 million of pension settlement losses from risk mitigation actions, \$25 million of higher restructuring costs reported in this line, \$15 million of environmental liability charges, a \$10 million charge for the allowance for doubtful accounts, higher acquisition-related costs and increased general corporate expenses. These costs were partially offset by a \$29 million litigation settlement gain, net of legal fees.

2016 Compared to 2015: Other expenses, net increased \$9 million in 2016 compared to 2015, primarily due to higher restructuring costs.

INTEREST EXPENSE, NET

2017 Compared to 2016: Interest expense, net in 2017 was flat to 2016, as the effect of higher long-term debt following the issuance of our 2047 senior notes was offset by the lower borrowing rate.

2016 Compared to 2015: Interest expense, net in 2016 was \$8 million higher than in 2015. The increase was primarily driven by increased long-term debt following the issuance of our 2026 senior notes.

LOSS (GAIN) ON EXTINGUISHMENT OF DEBT

For the year ended December 31, 2017, the Company recognized a \$71 million loss on extinguishment of debt in connection with the redemption of its 2019 senior notes and a portion of its 2036 senior notes. For the year ended December 31, 2016, the Company recorded a \$1 million loss on extinguishment of debt in connection with the redemption of its 2016 senior notes. For the year ended December 31, 2015, the Company recorded a \$5 million gain on extinguishment of debt as a result of purchasing its World Headquarters facility, which had previously been classified as a capital lease.

INCOME TAX EXPENSE

Income tax expense for 2017 was \$269 million compared to \$188 million in 2016.

The U.S. government enacted the Tax Act legislation on December 22, 2017. The Tax Act made broad and complex changes to the U.S. tax code, including but not limited to, a reduction to the U.S. federal corporate income tax rate from 35% to 21%; a one-

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

time transition tax on certain unrepatriated earnings of foreign subsidiaries (the "Transition Tax"); eliminating the corporate alternative minimum tax (AMT) and changing realization of AMT credits; changing rules related to uses and limitations of NOL carryforwards created in tax years after December 31, 2017; changes to the limitations on available interest expense deductions; and changes to other existing deductions and business-related exclusions.

The SEC issued Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act" ("SAB 118"), providing guidance on accounting for the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date to complete the accounting under Accounting Standards Codification (ASC) 740, "Income Taxes." In accordance with SAB 118, a company must account for those aspects of the Act for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in its financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the tax laws that were in effect immediately before the enactment of the Tax Act.

The Company has not completed the accounting for income tax effects of the Tax Act. However, we were able to make reasonable estimates to record a provisional adjustment. In connection with our initial analysis, a provisional non-cash charge of \$82 million was recorded to tax expense during the period for the changes related to the Tax Act. The provisional adjustment includes reasonable estimates for the Transition Tax resulting in a non-cash charge of \$264 million, a benefit of \$160 million from the generation of FTCs, a charge of \$24 million for a valuation allowance established against the FTC generated, and a deferred tax benefit of \$46 million for the impact to our net U.S. deferred taxes liabilities as a result of reduction of the corporate tax rate to 21%. The Company was not yet able to make a reasonable estimate of the U.S. state tax effects of the Tax Act. Therefore, no provisional adjustment was recorded with respect to this item.

The Company's effective tax rate for 2017 was 48% on pre-tax income of \$559 million. The difference between the 48% effective tax rate and the U.S. federal statutory tax rate of 35% is primarily attributable to the provisional adjustments for the Tax Act, reversal of valuation allowances recorded against certain foreign deferred tax assets, changes in uncertain tax positions and lower foreign tax rates.

New provisions of the Tax Act, including but not limited to, the base erosion anti-abuse tax (BEAT), a new limitation on deductible interest expense, a tax on global intangible low taxed income (GILTI) earned by controlled foreign corporations (CFCs), and limitations on existing deductions, are effective January 1, 2018. The Company continues to evaluate the impact of the tax law changes on future results and monitor the amount of future income levels to fully utilize the U.S. federal NOLs and FTCs, which is substantially similar to the future income levels to fully utilize the U.S. federal NOLs before enactment of the Tax Act.

The realization of deferred tax assets depends on achieving a certain minimum level of future taxable income. Management currently believes that it is at least reasonably possible that the minimum level of taxable income will be met within the next 12 months to reduce the valuation allowances of certain foreign jurisdictions by a range of zero to \$6 million.

The Company's effective tax rate for 2016 was 32% on pre-tax income of \$590 million. The difference between the 32% effective tax rate and the U.S. federal statutory rate of 35% is primarily attributable to the reversal of valuation allowances recorded in prior years against French and Spanish deferred tax assets, changes in uncertain tax positions and lower foreign tax rates.

Adjusted Earnings Before Interest and Taxes ("Adjusted EBIT")

Adjusted EBIT is a non-GAAP measure that excludes certain items that management does not allocate to our segment results because it believes they are not representative of the Company's ongoing operations. Adjusted EBIT is used internally by the Company for various purposes, including reporting results of operations to the Board of Directors of the Company, analysis of performance and related employee compensation measures. Although management believes that these adjustments result in a measure that provides a useful representation of our operational performance, the adjusted measure should not be considered in isolation or as a substitute for net earnings attributable to Owens Corning as prepared in accordance with accounting principles generally accepted in the United States.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

Adjusting income (expense) items to EBIT are shown in the table below (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Restructuring costs	\$ (48)	\$ (28)	\$ (2)
Acquisition-related costs	(15)	(9)	—
Recognition of acquisition inventory fair value step-up	(5)	(10)	—
Litigation settlement gain, net of legal fees	29	—	—
Pension settlement losses	(64)	—	—
Environmental liability charges	(15)	—	—
Total adjusting items	\$ (118)	\$ (47)	\$ (2)

The reconciliation from net earnings attributable to Owens Corning to EBIT and Adjusted EBIT is shown in the table below (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
NET EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 289	\$ 393	\$ 330
Net earnings attributable to noncontrolling interests	1	6	4
NET EARNINGS	290	399	334
Equity in net earnings (loss) of affiliates	—	(3)	1
Income tax expense	269	188	120
EARNINGS BEFORE TAXES	559	590	453
Interest expense, net	107	108	100
Loss (gain) on extinguishment of debt	71	1	(5)
EARNINGS BEFORE INTEREST AND TAXES	737	699	548
Adjusting items from above	(118)	(47)	(2)
ADJUSTED EBIT	\$ 855	\$ 746	\$ 550

Segment Results

EBIT by segment consists of net sales less related costs and expenses and is presented on a basis that is used internally for evaluating segment performance. Certain items, such as general corporate expenses or income and certain other expense or income items, are excluded from the internal evaluation of segment performance. Accordingly, these items are not reflected in EBIT for our reportable segments and are included in the Corporate, Other and Eliminations category, which is presented following the discussion of our reportable segments.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

Composites

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Composites segment (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Net sales	\$ 2,068	\$ 1,952	\$ 1,902
<i>% change from prior year</i>	<i>6%</i>	<i>3%</i>	<i>-1 %</i>
EBIT	\$ 291	\$ 264	\$ 232
<i>EBIT as a % of net sales</i>	<i>14%</i>	<i>14%</i>	<i>12 %</i>
Depreciation and amortization expense	\$ 144	\$ 138	\$ 125

NET SALES

2017 Compared to 2016: Net sales in our Composites segment were \$ 116 million higher in 2017 than in 2016, primarily driven by higher sales volumes of approximately 6%. Volume performance benefited from broad-based market strength, particularly the roofing market and other glass non-wovens applications. The favorable impact of translating sales denominated in foreign currencies into United States dollars was largely offset by \$18 million of lower selling prices. The remaining change was driven by \$10 million of unfavorable product mix (mainly related to higher sales volumes into the roofing market).

2016 Compared to 2015: Net sales in our Composites segment were \$50 million higher in 2016 than in 2015. The increase in sales was driven by higher sales volumes of about 6% and higher selling prices of \$22 million. These benefits were partially offset by \$57 million of unfavorable product mix (mainly related to the prior year's specialty glass sales and higher sales volumes into the roofing market in 2016) and the \$22 million negative impact of translating sales denominated in foreign currencies into United States dollars.

EBIT

2017 Compared to 2016: EBIT in our Composites segment was \$27 million higher in 2017 than in 2016. The increase was primarily driven by lower furnace rebuild and startup costs of \$39 million. The EBIT improvement driven by higher sales volumes was slightly more than offset by lower selling prices and the negative impact of input cost inflation. The remaining change was due to a \$10 million charge in the third quarter of 2017 for the allowance for doubtful accounts, primarily due to an estimated uncollectible receivable from a Brazilian customer now in financial reorganization.

2016 Compared to 2015: EBIT in our Composites segment was \$32 million higher in 2016 than in 2015. The benefit of higher sales volumes was largely offset by \$24 million of unfavorable product mix, which was primarily related to the comparison against the prior year's specialty glass sales and the current year's higher sales volumes into the roofing market. Higher furnace rebuild and startup costs of \$28 million were offset about equally by input cost deflation and lower manufacturing costs. The remaining change was driven by higher selling prices of \$22 million and one-time benefits from our strategic supply alliances.

OUTLOOK

Global glass reinforcements market demand has historically grown on average as a function of global industrial production and we believe this relationship will continue. In 2018, the Company expects continued global industrial production growth.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

Insulation

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Insulation segment (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Net sales	\$ 2,001	\$ 1,748	\$ 1,850
<i>% change from prior year</i>	<i>14%</i>	<i>-6 %</i>	<i>6%</i>
EBIT	\$ 177	\$ 126	\$ 160
<i>EBIT as a % of net sales</i>	<i>9%</i>	<i>7 %</i>	<i>9%</i>
Depreciation and amortization expense	\$ 124	\$ 106	\$ 101

NET SALES

2017 Compared to 2016: In our Insulation segment, 2017 net sales were \$253 million higher than in 2016 . The increase was primarily driven by the \$133 million impact of our second quarter 2017 acquisition of Pittsburgh Corning and higher sales volumes of about 6%. The remaining change was driven by higher selling prices of \$19 million. The slightly favorable impact of translating sales denominated in foreign currencies into United States dollars was offset by unfavorable channel mix associated with growth in new construction.

2016 Compared to 2015: In our Insulation segment, 2016 net sales were \$102 million lower than in 2015. The decrease was primarily driven by lower sales volumes of about 5%, primarily due to the expiration of contract manufacturing agreements at the beginning of 2016 and a commercial dispute with a large residential insulation installer. Favorable customer mix of \$35 million was largely offset by lower selling prices of \$33 million. The remaining decrease of \$22 million was due to the negative impact of translating sales denominated in foreign currencies into United States dollars.

EBIT

2017 Compared to 2016: In our Insulation segment, EBIT increased \$51 million in 2017 compared to 2016 . Substantially all of the increase was driven by higher sales volumes and higher selling prices. Our second quarter 2017 acquisition of Pittsburgh Corning contributed \$15 million of EBIT. Favorable manufacturing performance of \$27 million was more than offset (about equally) by \$19 million of startup costs for our new mineral wool insulation plant and input cost inflation.

2016 Compared to 2015: In our Insulation segment, EBIT decreased \$34 million in 2016 compared to 2015. The change was primarily driven by the \$27 million negative impact of lower production volumes. Lower selling prices of \$33 million were largely offset by favorable customer mix of \$29 million. The \$10 million benefit of input cost deflation was offset by lower sales volumes. The remaining decrease of \$4 million was driven by negative foreign currency translation.

DEPRECIATION AND AMORTIZATION

In our Insulation segment, depreciation and amortization expense increased by \$18 million in 2017 compared to 2016. The change was primarily due to a half-year of depreciation and amortization related to our 2017 Pittsburgh Corning acquisition, including \$10 million of depreciation related to property, plant and equipment and \$4 million related to amortization of intangible assets. Depreciation and amortization expense was relatively flat in 2016 compared to 2015.

OUTLOOK

During the fourth quarter of 2017 , the average Seasonally Adjusted Annual Rate (SAAR) of U.S. housing starts was approximately 1.250 million starts, which was flat compared to 1.250 million starts in the fourth quarter of 2016 . While the trend in U.S. housing starts has generally been positive over the past few years, the timing and pace of recovery of the United States housing market remains uncertain.

The Company expects its Insulation segment to benefit from an overall strengthening of the U.S. housing market, higher capacity utilization and improved pricing. Additionally, we expect that global industrial production growth will positively impact the Insulation segment's commercial and industrial markets in North America, Europe and Asia-Pacific. We believe that the geographic, product and channel mix of our portfolio will continue to moderate the impact of any demand-driven variability associated with U.S. new construction.

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

Roofing

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Roofing segment (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Net sales	\$ 2,553	\$ 2,194	\$ 1,766
<i>% change from prior year</i>	<i>16%</i>	<i>24%</i>	<i>1%</i>
EBIT	\$ 535	\$ 486	\$ 266
<i>EBIT as a % of net sales</i>	<i>21%</i>	<i>22%</i>	<i>15%</i>
Depreciation and amortization expense	\$ 50	\$ 46	\$ 39

NET SALES

2017 Compared to 2016: In our Roofing segment, net sales were \$359 million higher in 2017 than in 2016 . Sales volumes increased by approximately 9%, due to higher asphalt shingle volumes, from growth across all our key demand drivers, and growth in roofing components. Our early-second quarter 2016 acquisition of InterWrap contributed \$86 million of net sales (and was included in the other comparison categories following the one-year post-acquisition period). The remaining increase was driven by higher selling prices of \$47 million and favorable customer and product mix. Third-party asphalt sales were up \$10 million year-over-year.

2016 Compared to 2015: In our Roofing segment, net sales were \$428 million higher in 2016 than in 2015. Sales volumes increased by about 20%, as higher reroof demand, driven by storm activity, and increased demand from new construction contributed to the growth of the U.S. asphalt shingle market. Our second quarter 2016 acquisition of InterWrap contributed \$182 million of net sales. The impact of higher sales volumes and the InterWrap acquisition was partially offset by \$51 million each of lower selling prices and lower third-party asphalt sales.

EBIT

2017 Compared to 2016: In our Roofing segment, EBIT was \$49 million higher in 2017 than in 2016 . The increase was primarily driven by higher sales volumes and higher selling prices. Our early-second quarter 2016 acquisition of InterWrap contributed \$20 million of EBIT (and was included in the other comparison categories following the one-year post-acquisition period). These benefits were partially offset by \$55 million of input cost inflation (about two-thirds of which was related to asphalt), \$14 million of higher logistics costs, \$8 million of lower EBIT on third-party asphalt sales (resulting from a lag in the timing of input cost inflation and price increases) and slightly higher marketing costs.

2016 Compared to 2015: In our Roofing segment, EBIT was \$220 million higher in 2016 than in 2015. The increase was primarily driven by higher sales volumes. The asphalt cost deflation benefit of \$108 million was partially offset by lower selling prices. Our second quarter 2016 acquisition of InterWrap contributed \$40 million in EBIT for the year. Higher selling, general and administrative expenses, primarily driven by increased sales and marketing costs associated with higher sales volumes and higher performance-based compensation, offset less than half of the benefit of the InterWrap acquisition.

OUTLOOK

In our Roofing business, we expect the factors that have driven margins in recent years, such as growth from new construction and reroof demand, along with higher sales of roofing components, to continue to deliver profitability. Uncertainties that may impact our Roofing margins include demand from storm and other weather events, competitive pricing pressure and the cost and availability of raw materials, particularly asphalt.

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

Corporate, Other and Eliminations

The table below provides a summary of EBIT and depreciation and amortization expense for the Corporate, Other and Eliminations category (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Restructuring costs	\$ (48)	\$ (28)	\$ (2)
Acquisition-related costs	(15)	(9)	—
Recognition of acquisition inventory fair value step-up	(5)	(10)	—
Litigation settlement gain, net of legal fees	29	—	—
Pension settlement losses	(64)	—	—
Environmental liability charges	(15)	—	—
General corporate expense and other	(148)	(130)	(108)
EBIT	\$ (266)	\$ (177)	\$ (110)
Depreciation and amortization	\$ 53	\$ 53	\$ 35

EBIT

2017 Compared to 2016: In Corporate, Other and Eliminations, EBIT losses in 2017 were \$89 million higher compared to 2016, primarily due to pension settlement losses and environmental liability charges in 2017, higher restructuring costs and higher general corporate expenses, which were partially offset by a litigation settlement gain in 2017. Costs related to our acquisitions (including the inventory fair value step-up recognition) were relatively flat to the prior year. See details of these costs in the table above and further explained in the Restructuring and Acquisition-Related Costs paragraph of MD&A.

General corporate expense and other in 2017 was \$18 million higher than in 2016, primarily driven by increased general corporate expenses and slightly higher performance-based compensation. The year-over-year comparison was further negatively impacted by the \$6 million pension-related gain that was recognized in 2016.

2016 Compared to 2015: In Corporate, Other and Eliminations, EBIT costs in 2016 were \$67 million higher compared to 2015, primarily due to restructuring costs and costs related to our previously announced acquisitions. See details of these costs in the table above and further explained in the Restructuring and Acquisition-Related Costs paragraph of MD&A. The \$22 million increase in General corporate expense and other was driven about equally by higher performance-based compensation and increased general corporate expenses, partially offset by a \$6 million pension-related gain.

Depreciation and amortization in 2016 was \$18 million higher than in 2015, primarily due to accelerated depreciation recorded in 2016 in connection with our Insulation restructuring action and post-acquisition restructuring of InterWrap.

OUTLOOK

In 2018, we expect general corporate expenses to range between \$140 million and \$150 million.

SAFETY

Working safely is a condition of employment at Owens Corning. We believe this organization-wide expectation provides for a safer work environment for employees, improves our manufacturing processes, reduces our costs and enhances our reputation. Furthermore, striving to be a world-class leader in safety provides a platform for all employees to understand and apply the resolve necessary to be a high-performing, global organization. We measure our progress on safety based on Recordable Incidence Rate (“RIR”) as defined by the United States Department of Labor, Bureau of Labor Statistics. For the year ended December 31, 2017, our RIR was 0.50, a slight improvement from the rate in the same period a year ago.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

LIQUIDITY, CAPITAL RESOURCES AND OTHER RELATED MATTERS

Liquidity

The Company's primary external sources of liquidity are its Senior Revolving Credit Facility, Receivables Securitization Facility and term loan commitments.

The Company has an \$800 million Senior Revolving Credit Facility that has been amended from time to time, which matures in November 2020 and permits incremental term loans under the facility of up to \$600 million.

The Company has a \$250 million Receivables Securitization Facility which now matures in May 2020, following amendments in March 2017 and May 2017 to extend its maturity. No other significant terms impacting liquidity were amended.

The Company obtained two term loan commitments on October 27, 2017 for \$300 million and \$600 million, respectively, (collectively, the "Term Loan Commitments"), separate from the \$600 million of allowable incremental term loans under the Senior Revolving Credit Facility. The Company entered into the Term Loan Commitments, in part, to pay a portion of the purchase price of the Paroc acquisition. Please refer to the paragraph below for further information on the \$600 million term loan borrowing in the first quarter of 2018. The \$600 million term loan commitment requires full repayment of borrowings in February 2021. On February 12, 2018, the Company voluntarily reduced the entire \$300 million term loan commitment, thus eliminating the availability of credit under the facility.

The following table shows how the Company utilized its primary sources of liquidity (in millions):

	As of December 31, 2017		
	Term Loan Commitments (a)	Senior Revolving Credit Facility	Receivables Securitization Facility
Facility size	\$ 900	\$ 800	\$ 250
Collateral capacity limitation on availability	n/a	n/a	26
Outstanding borrowings	—	—	—
Outstanding letters of credit	n/a	9	3
Availability on facility	\$ 900	\$ 791	\$ 221

(a) Please refer to the paragraphs immediately above and below for information on subsequent activity in February 2018 related to the Term Loan Commitments.

The Company issued \$400 million of 2048 senior notes on January 25, 2018 subject to \$11 million of discounts and issuance costs. Interest on the 2048 senior notes is payable semiannually in arrears on January 30 and July 30 each year, beginning on July 30, 2018. The proceeds from the 2048 senior notes, along with borrowings on a \$600 term loan commitment and the Receivables Securitization Facility, were used to fund the purchase of Paroc in the first quarter of 2018.

The Company issued \$600 million of 2047 senior notes on June 26, 2017 subject to \$12 million of discounts and issuance costs. Interest on the 2047 senior notes is payable semiannually in arrears on January 15 and July 15 each year, beginning on January 15, 2018. A portion of the proceeds from the 2047 senior notes was used to fund the purchase of Pittsburgh Corning in the second quarter of 2017 and for general corporate purposes. In the third quarter of 2017, a portion of the proceeds was used by the Company, in addition to borrowings on the Receivables Securitization Facility, to repay portions of the Company's outstanding 2019 senior notes and 2036 senior notes. The Company issued a make-whole call to repay the remaining portion of its outstanding 2019 senior notes, and the redemption was completed in the third quarter of 2017. The Company recognized \$71 million of loss on extinguishment of debt in the third quarter of 2017 associated with these actions.

The Company has no significant debt maturities of senior notes before 2022, and both our Senior Revolving Credit Facility and Receivables Securitization Facility mature in 2020. The Company also has a \$600 million term loan borrowing that must be repaid by 2021. As of December 31, 2017, the Company had \$ 2.4 billion of total debt and cash and cash equivalents of \$246 million .

Cash and cash equivalents held by foreign subsidiaries may be subject to foreign withholding taxes upon repatriation to the U.S. As of December 31, 2017 and December 31, 2016, the Company had \$101 million and \$53 million, respectively, in cash and cash equivalents in certain of its foreign subsidiaries. The Company's analysis whether to change its indefinite reinvestment assertion

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

on account of the Tax Act is incomplete. Therefore, we continue to assert indefinite reinvestment in accordance with ASC 740 based on the laws before enactment of the Tax Act and do not provide for foreign withholding taxes on the undistributed earnings of our foreign subsidiaries.

As a holding company, we have no operations of our own and most of our assets are held by our direct and indirect subsidiaries. Dividends and other payments or distributions from our subsidiaries will be used to meet our debt service and other obligations and to enable us to pay dividends to our stockholders. Please refer to page 13 of the Risk Factors disclosed in Item 1A of this Form 10-K for details on the factors that could inhibit our subsidiaries' abilities to pay dividends or make other distributions to the parent company.

We expect that our cash on hand, coupled with future cash flows from operations and other available sources of liquidity, including our Senior Revolving Credit Facility and Receivables Securitization Facility, will provide ample liquidity to enable us to meet our cash requirements. Our anticipated uses of cash include capital expenditures, working capital needs, pension contributions, meeting financial obligations, payments of quarterly dividends as authorized by our Board of Directors, acquisitions and reducing outstanding amounts under the Senior Revolving Credit Facility and Receivables Securitization Facility.

We have outstanding share repurchase authorizations and will evaluate and consider repurchasing shares of our common stock, as well as strategic acquisitions, divestitures, joint ventures and other transactions to create stockholder value and enhance financial performance. Such transactions may require cash expenditures beyond current sources of liquidity or generate proceeds.

The credit agreements applicable to our Senior Revolving Credit Facility and the Receivables Securitization Facility contain various covenants that we believe are usual and customary. The Senior Revolving Credit Facility and the Receivables Securitization Facility each include a maximum allowed leverage ratio and a minimum required interest expense coverage ratio. We were in compliance with these covenants as of December 31, 2017 .

Cash flows

The following table presents a summary of our cash balance, cash flows, and availability on credit facilities (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Cash and cash equivalents	\$ 246	\$ 112	\$ 96
Cash provided by operating activities	\$ 1,016	\$ 943	\$ 742
Cash used for investing activities	\$ (901)	\$ (815)	\$ (369)
Cash provided by (used for) financing activities	\$ 3	\$ (88)	\$ (333)
Availability on the Senior Revolving Credit Facility	\$ 791	\$ 791	\$ 791
Availability on the Receivables Securitization Facility	\$ 221	\$ 248	\$ 228
Availability on the Term Loan Commitments	\$ 900	\$ —	\$ —

Cash and cash equivalents: In 2017, the balance of cash and cash equivalents increased by \$134 million compared to 2016, primarily due to cash that was retained to complete our Composites expansion in India in 2018 and prepare for our 2018 acquisition of Paroc.

Operating activities: In 2017, the Company generated \$1,016 million of cash from operating activities compared to \$943 million in 2016. While net earnings were lower than the prior year, cash provided by operating activities excludes the effects of the \$71 million loss on extinguishment of debt (which is aggregated with payments on long-term debt in financing activities), non-cash income tax charges related to the Tax Act and non-cash pension settlement charges. Despite higher net sales in 2017, the operating cash flow impact of the change in operating assets and liabilities was relatively neutral to the prior year, representing good working capital discipline. The year-over-year benefit of higher payables was offset by the comparison of higher receivables and inventories in the current year against reductions of both in the prior year.

Investing activities: The \$86 million increase in cash used for investing activities in 2017 compared to 2016 was primarily driven by higher spending on acquisitions year-over-year.

Financing activities: Net cash provided by financing activities in 2017 was \$3 million compared to \$88 million used in 2016. The change year-over-year was primarily driven by lower treasury stock repurchases.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)**2018 Investments**

Capital Expenditures: The Company will continue a balanced approach to the use of its cash flows. Operational cash flow will be used to fund the Company's growth and innovation. Capital expenditures in 2018 are expected to be approximately \$500 million which is roughly \$50 million greater than expected depreciation and amortization. Capital spending in excess of depreciation and amortization is primarily due to the remaining spending for our Composites expansion in India and growth projects in our Roofing and Insulation segments, including the construction of a Paroc mineral wool insulation manufacturing line in Poland. The Company will also continue to evaluate projects and acquisitions that provide opportunities for growth in our businesses, and invest in them when they meet our strategic and financial criteria.

Tax Net Operating Losses and U.S. Foreign Tax Credits

Upon emergence from bankruptcy and subsequent to the distribution of contingent stock and cash in January 2007, we generated a significant United States federal tax NOL of approximately \$3.0 billion. As of December 31, 2017 and 2016, our federal tax net operating losses remaining were \$0.9 billion and \$1.8 billion, respectively. The decrease in U.S. federal tax NOLs is primarily due to the impact of 2017 estimated taxable income and our reasonable estimate from the effects of the Tax Act, but is offset by acquired NOLs from the Pittsburgh Corning acquisition. The company generated a significant U.S. FTC in 2017 of approximately \$160 million as a result of changes from the Tax Act. Our NOLs and FTC carryforwards are subject to the limitations imposed under sections 382 and 383 of the Internal Revenue Code. These limits are triggered when a change in control occurs, and are computed based upon several variable factors including the share price of the Company's common stock on the date of the change in control. A change in control is generally defined as a cumulative change of more than 50% in the ownership positions of certain stockholders during a rolling three year period.

In addition to the United States federal tax NOLs described above, we have NOLs in various state and foreign jurisdictions which totaled \$1.8 billion and \$0.5 billion as of December 31, 2017, respectively and \$2.2 billion and \$0.5 billion as of December 31, 2016, respectively. The state NOLs decreased from prior year based on our estimate of 2017 taxable income and expiring loss years. Foreign NOLs remained unchanged from the prior year. The evaluation of the amount of NOLs and FTCs expected to be realized necessarily involves forecasting the amount of taxable income that will be generated in future years. In assessing the realizability of our deferred tax assets, we have not relied on any material future tax planning strategies. We have forecasted future results in accordance with the recently enacted Tax Act using estimates management believes to be reasonable, which are based on independent evidence such as expected trends resulting from certain leading economic indicators such as global industrial production and new U.S. residential housing starts. In order to fully utilize our NOLs and U.S. FTCs, we estimate that the Company will need to generate future federal, state and foreign earnings before taxes of approximately \$2.0 billion, \$2.1 billion and \$0.5 billion, respectively. Management believes the Company will generate sufficient future taxable income within the statutory limitations in order to fully realize the carrying value of its U.S. federal NOLs. As of December 31, 2017, a valuation allowance was established for U.S. FTC carryforwards and certain state and foreign jurisdictions' NOL carryforwards.

The realization of deferred income tax assets is dependent on future events. Actual results inevitably will vary from management's forecasts. Should we determine that it is likely that our deferred income tax assets are not realizable, we would be required to reduce our deferred tax assets reflected on our Consolidated Financial Statements to the net realizable amount by establishing an accounting valuation allowance and recording a corresponding charge to current earnings. Such adjustments could be material to the financial statements. To date, we have recorded valuation allowances against certain of these deferred tax assets totaling \$94 million as of December 31, 2017.

Pension contributions

Please refer to Note 13 of the Consolidated Financial Statements. The Company has several defined benefit pension plans. The Company made cash contributions of \$72 million and \$63 million to the plans during the twelve months ended December 31, 2017 and 2016, respectively. The Company expects to contribute \$62 million in cash to its pension plans during 2018. Actual contributions to the plans may change as a result of several factors, including changes in laws that impact funding requirements. The ultimate cash flow impact to the Company, if any, of the pension plan liability and the timing of any such impact will depend on numerous variables, including future changes in actuarial assumptions, legislative changes to pension funding laws, and market conditions.

Derivatives

Please refer to Note 4 of the Consolidated Financial Statements.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

Fair Value Measurement

Please refer to Notes 1, 4, and 12 of the Consolidated Financial Statements.

OFF-BALANCE-SHEET ARRANGEMENTS

The Company has entered into limited off-balance-sheet arrangements, as defined under Securities and Exchange Commission rules, in the ordinary course of business. The Company does not believe these arrangements will have a material effect on the Company's financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

CONTRACTUAL OBLIGATIONS

In the ordinary course of business, the Company enters into contractual obligations to make cash payments to third parties. The Company's known contractual obligations as of December 31, 2017 are as follows (in millions):

	Payments due by period						
	2018	2019	2020	2021	2022	2023 and Beyond	Total
Long-term debt obligations	\$ —	\$ —	\$ —	\$ —	\$ 600	\$ 1,810	\$ 2,410
Interest on variable rate debt (1), fixed rate debt, capital lease payments	115	115	114	112	112	1,122	1,690
Capital lease obligations	4	4	5	5	4	9	31
Operating lease obligations	68	59	45	32	22	36	262
Purchase obligations (2)	255	78	71	63	55	111	633
Deferred acquisition payments	4	—	—	2	—	—	6
Pension contributions (3)	62	—	—	—	—	—	62
Total (4)	\$ 508	\$ 256	\$ 235	\$ 214	\$ 793	\$ 3,088	\$ 5,094

- (1) Interest on variable rate debt is calculated using the weighted-average interest rate in effect as of December 31, 2017 for all future periods.
- (2) Purchase obligations are commitments to suppliers to purchase goods or services, and include take-or-pay arrangements, capital expenditures, and contractual commitments to purchase equipment. The Company did not include ordinary course of business purchase orders in this amount as the majority of such purchase orders may be canceled and are reflected in historical operating cash flow trends. The Company does not believe such purchase orders will adversely affect our liquidity position.
- (3) Pension contributions include estimated contributions for our defined benefit pension plans. The Company is not presenting estimated payments in the table above beyond 2018 as funding can vary significantly from year to year based upon changes in the fair value of plan assets, funding regulations and actuarial assumptions.
- (4) The Company has not included its accounting for uncertainty in income taxes liability in the contractual obligation table as the timing of payment, if any, cannot be reasonably estimated. The balance of this liability at December 31, 2017 was \$35 million.

CRITICAL ACCOUNTING ESTIMATES

Our discussion and analysis of our financial condition and results of operations is based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates its estimates and judgments related to these assets, liabilities, revenues and expenses. We believe these estimates to be reasonable under the circumstances. Management bases its estimates and judgments on historical experience, expected future outcomes, and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The Company believes that the following accounting estimates are critical to our financial results:

Tax Estimates. The determination of our tax provision is complex due to operations in several tax jurisdictions outside the United States. We apply a more-likely-than-not recognition threshold for all tax uncertainties. Such uncertainties include any claims by the Internal Revenue Service for income taxes, interest, and penalties attributable to audits of open tax years.

In addition, we record a valuation allowance to reduce our deferred tax assets to the amount that we believe is more likely than not to be realized. We estimate future taxable income and the effect of tax planning strategies in our consideration of whether deferred tax assets will more likely than not be realized. In the event we were to determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to reduce the net deferred tax assets would be charged to

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

earnings in the period such determination was made. Conversely, if we were to determine that we would be able to realize our net deferred tax assets in the future in excess of their currently recorded amount, an adjustment to increase the net deferred tax assets would be credited to earnings in the period such determination was made.

The SEC issued SAB 118, which provides guidance on the accounting for the effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date to complete the accounting under ASC 740. In accordance with SAB 118, a company must account for those aspects of the Tax Act for which the accounting under ASC 740 is complete. To the extent that a company’s accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in its financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis on the provision of the tax laws that were in effect immediately before the enactment of the Tax Act.

Impairment of Assets. The Company exercises judgment in evaluating assets for impairment. Goodwill and other indefinite-lived intangible assets are tested for impairment annually, or when circumstances arise which indicate there may be an impairment. Long-lived assets are tested for impairment when economic conditions or management decisions indicate an impairment may exist. These tests require comparing recorded values to estimated fair values for the assets under review.

The Company has recorded its goodwill and conducted testing for potential goodwill impairment at a reporting unit level. Our reporting units represent a business for which discrete financial information is available and segment management regularly reviews the operating results. The Company has three reporting units; Composites, Insulation and Roofing. The following table summarizes the segment allocation of recorded goodwill on our Consolidated Balance Sheet (in millions):

Segment	December 31, 2017	Percent of Total
Composites	\$ 58	4%
Insulation	1,049	70%
Roofing	400	26%
Total goodwill	\$ 1,507	100%

Goodwill is an intangible asset that is not subject to amortization; however, annual tests are required to be performed to determine whether impairment exists. Prior to performing the two-step impairment process described in ASC 350-20, the guidance permits companies to assess qualitative factors to determine if it is more likely than not that a reporting unit’s fair value is less than its carrying value. If it is more likely than not that a reporting unit’s fair value is greater than its carrying value, then no additional testing is required. If it is more likely than not that a reporting unit’s fair value is less than or close to its carrying value then step one of the impairment test must be performed to determine if impairment is required. In 2017, the Company has elected not to perform the qualitative approach, and proceeded in performing a step one analysis.

As part of our quantitative testing process for goodwill, we estimated fair values using a discounted cash flow approach from the perspective of a market participant. Significant estimates in the discounted cash flow approach are cash flow forecasts of our reporting units, the discount rate, the terminal business value and the projected income tax rate. The cash flow forecasts of the reporting units are based upon management’s long-term view of our markets and are the forecasts that are used by senior management and the Board of Directors to evaluate operating performance. The discount rate utilized is management’s estimate of what the market’s weighted average cost of capital is for a company with a similar debt rating and stock volatility, as measured by beta. The projected income tax rates utilized are the statutory tax rates for the countries where each reporting unit operates. The terminal business value is determined by applying a business growth factor to the latest year for which a forecast exists. As part of our goodwill quantitative testing process, the Company evaluates whether there are reasonably likely changes to management’s estimates that would have a material impact on the results of the goodwill impairment testing.

Our annual test of goodwill for impairment was conducted as of October 1, 2017. The fair value of each of our reporting units was in excess of its carrying value and thus, no impairment exists. The fair value of all three reporting units substantially exceeded the carrying value as of the date of our assessment.

Other indefinite-lived intangible assets are the Company’s trademarks. Fair values used in testing for potential impairment of our trademarks are calculated by applying an estimated market value royalty rate to the forecasted revenues of the businesses that utilize those assets. The assumed cash flows from this calculation are discounted using the Company’s weighted average cost of capital. Our annual test of indefinite-lived intangibles was conducted as of October 1, 2017. The fair value of each of our indefinite-

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

lived intangible assets was in excess of its carrying value and thus, no impairment exists. The fair value of these assets substantially exceeded the carrying value as of the date of our assessment.

Fair values for long-lived asset testing are calculated by estimating the undiscounted cash flows from the use and ultimate disposition of the asset or by estimating the amount that a willing third party would pay. For impairment testing, long-lived assets are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. The Company groups long-lived assets based on manufacturing facilities that produce similar products either globally or within a geographic region. Management tests asset groups for potential impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Current market conditions have caused the Company to have idle capacity. We consider such temporary idled capacity to be unimpaired because there has not been a significant change in the forecasted long-term cash flows at the asset group level to indicate that the carrying values may not be recoverable. While management's current strategy is to utilize this capacity to meet expected future demand, any significant decrease in this expectation or change in management's strategy could result in future impairment charges related to this excess capacity. We evaluated and concluded that there are not any reasonably likely changes to management's estimates that would indicate that the carrying value of our long-lived assets is unrecoverable.

In addition, changes in management intentions, market conditions, operating performance and other similar circumstances could affect the assumptions used in these impairment tests. Changes in the assumptions could result in impairment charges that could be material to our Consolidated Financial Statements in any given period.

Pensions and Other Postretirement Benefits. Accounting for pensions and other postretirement benefits involves estimating the cost of benefits to be provided well into the future and attributing that cost over the time period each employee works. To accomplish this, extensive use is made of assumptions about investment returns, discount rates, inflation, mortality, turnover, and medical costs. Changes in assumptions used could result in a material impact to our Consolidated Financial Statements in any given period.

Two key assumptions that could have a significant impact on the measurement of pension liabilities and pension expense are the discount rate and the expected return on plan assets. For our largest plan, the United States plan, the discount rate used for the December 31, 2017 measurement date was derived by matching projected benefit payments to bond yields obtained from the Towers Watson proprietary United States RATE:Link 40-90 pension discount curve developed as of the measurement date. The Towers Watson United States RATE:Link 40-90 pension discount curve is based on certain corporate bonds rated Aa whose weighted average yields lie within the 40th to 90th percentiles of the bonds considered. Corporate bonds are considered to be AA graded if they receive an AA (or equivalent) rating from either or both of the two primary rating agencies in a given geography. For this purpose, we reference the two agencies with the highest ratings coverage for bonds in each region. Those two agencies are Standard and Poor's and Moody's.

The result supported a discount rate of 3.55% at December 31, 2017 compared to 3.95% at December 31, 2016. A 25 basis point increase (decrease) in the discount rate would decrease (increase) the December 31, 2017 projected benefit obligation for the United States pension plans by approximately \$27 million. A 25 basis point increase (decrease) in the discount rate would decrease (increase) 2018 net periodic pension cost by less than \$1 million.

The expected return on plan assets in the United States was derived by taking into consideration the target plan asset allocation, historical rates of return on those assets, projected future asset class returns and net outperformance of the market by active investment managers and plan related and investment related expenses paid from the plan trust. The Company uses the target plan asset allocation because we rebalance our portfolio to target on a quarterly basis. An asset return model was used to develop an expected range of returns on plan investments over a 20 year period, with the expected rate of return selected from a best estimate range within the total range of projected results. This process resulted in the selection of an expected return of 6.75% at the December 31, 2017 measurement date, which is used to determine net periodic pension cost for the year 2018. This assumption is consistent with the 6.75% return selected at the December 31, 2016 measurement date. A 25 basis point increase (decrease) in return on plan assets assumption would result in a respective decrease (increase) of 2018 net periodic pension cost by approximately \$2 million.

The discount rate for our United States postretirement plan was selected using the same method as described for the pension plan. The result supported a discount rate of 3.45% at December 31, 2017 compared to 3.80% at December 31, 2016. A 25 basis point increase (decrease) in the discount rate would decrease (increase) the United States postretirement benefit obligation by approximately \$5 million and decrease (increase) 2018 net periodic postretirement benefit cost by less than \$1 million.

The methods corresponding to those described above are used to determine the discount rate and expected return on assets for non-U.S. pension and postretirement plans, to the extent applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)**RECENT ACCOUNTING PRONOUNCEMENTS**

Please refer to Note 1 of the Consolidated Financial Statements.

ENVIRONMENTAL MATTERS

Please refer to Note 15 of the Consolidated Financial Statements.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

Our disclosures and analysis in this report, including Management's Discussion and Analysis of Financial Condition and Results of Operations, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 (the "Exchange Act"). Forward-looking statements present our current forecasts and estimates of future events. These statements do not strictly relate to historical or current results and can be identified by words such as "anticipate," "appear," "assume," "believe," "estimate," "expect," "forecast," "intend," "likely," "may," "plan," "project," "seek," "should," "strategy," "will" and other terms of similar meaning or import in connection with any discussion of future operating, financial or other performance. These forward-looking statements are subject to risks, uncertainties and other factors and actual results may differ materially from those results projected in the statements. These risks, uncertainties and other factors include, without limitation:

- relationships with key customers;
 - levels of residential and commercial construction activity;
 - competitive and pricing factors;
 - levels of global industrial production;
 - demand for our products;
 - industry and economic conditions that affect the market and operating conditions of our customers, suppliers or lenders;
 - domestic and international economic and political conditions, policies or other governmental actions, legislation and related regulations or interpretations, in the United States or elsewhere;
 - foreign exchange and commodity price fluctuations;
 - our level of indebtedness;
 - weather conditions;
 - availability and cost of credit;
 - availability and cost of energy and raw materials;
 - issues involving implementation and protection of information technology systems;
 - labor disputes;
 - legal and regulatory proceedings, including litigation and environmental actions;
 - our ability to utilize our net operating loss carryforwards;
 - research and development activities and intellectual property protection;
 - interest rate movements;
 - uninsured losses;
 - issues related to acquisitions, divestitures and joint ventures;
 - achievement of expected synergies, cost reductions and/or productivity improvements;
 - defined benefit plan funding obligations; and
 - price volatility in certain wind energy markets in the U.S.
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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

All forward-looking statements in this report should be considered in the context of the risks and other factors described above and as detailed from time to time in the Company's filings with the U.S. Securities and Exchange Commission. Any forward-looking statements speak only as of the date the statement is made and we undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise except as required by federal securities laws. It is not possible to identify all of the risks, uncertainties and other factors that may affect future results. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this report may not occur and actual results may differ materially from those anticipated or implied in the forward-looking statements. Accordingly, users of this report are cautioned not to place undue reliance on the forward-looking statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company is exposed to the impact of changes in foreign currency exchange rates, interest rates and the prices of various commodities used in the normal course of business. To mitigate some of the near-term volatility in our earnings and cash flows, the Company manages certain of our exposures through the use of financial contracts, contracts for physical delivery of a particular commodity, and derivative financial instruments. The Company's objective with these instruments is to reduce exposure to near-term fluctuations in earnings and cash flows. The Company's policy enables the use of foreign currency, interest rate and commodity derivative financial instruments only to the extent necessary to manage exposures as described above. The Company does not enter into such transactions for trading purposes.

A discussion of the Company's accounting policies for derivative financial instruments, as well as the Company's exposure to market risk, is included in Notes 1 and 4 to the Consolidated Financial Statements. Please refer to Note 4 for details of the fair values of derivative financial instruments and their classification on the Consolidated Balance Sheets.

For purposes of disclosing the market risk inherent in its derivative financial instruments the Company uses sensitivity analysis disclosures that express the potential loss in fair values of market rate sensitive instruments resulting from changes in interest rates, foreign currency exchange rates, and commodity prices that assume instantaneous, parallel shifts in exchange rates, interest rate yield curves, and commodity prices. The following analysis provides such quantitative information regarding market risk. There are certain shortcomings inherent in the sensitivity analysis presented, primarily due to the assumption that exchange rates change instantaneously and that interest rates change in a parallel fashion. In addition, the analyses are unable to reflect the complex market reactions that normally would arise from the market shifts modeled.

Foreign Exchange Rate Risk

The Company has transactional foreign currency exposures related to buying, selling, and financing in currencies other than the local currencies in which it operates. The Company enters into various forward contracts, which change in value as foreign currency exchange rates change, to preserve the carrying amount of foreign currency-denominated assets, liabilities, commitments, and certain anticipated foreign currency transactions. Exposures are related to the United States Dollar primarily relative to the Brazilian Real, Chinese Yuan, Indian Rupee, Japanese Yen, and South Korean Won exchange rates. Also, there are additional exposures related to the European Euro primarily versus the Russian Ruble. These transactional risks are mitigated through the use of derivative financial instruments and balancing of cash deposits and loans. The net fair value of derivative financial instruments used to limit exposure to foreign currency risk was less than \$1 million and \$1 million as of December 31, 2017 and 2016, respectively. The potential change in fair value at both December 31, 2017 and 2016 for such financial instruments from an increase (decrease) of 10% in the quoted foreign currency exchange rates would be an increase (decrease) of approximately \$1 million and \$3 million, respectively.

We have translation exposure resulting from translating the financial statements of foreign subsidiaries into United States dollars. Our most significant translation exposures are the Canadian Dollar, Chinese Yuan, European Euro, and Indian Rupee in relation to the United States Dollar. The Company has hedged a portion of the net investment in foreign subsidiaries against fluctuations in the European Euro through derivative financial instruments. The net fair value of these instruments was \$31 million and \$10 million as of December 31, 2017 and 2016, respectively. The potential change in fair value at December 31, 2017 and December 31, 2016 for such financial instruments from an increase (decrease) of 10% in the quoted foreign currency exchange rates would be an increase (decrease) of approximately \$60 million and \$27 million, respectively.

Interest Rate Risk

The Company is subject to market risk from exposure to changes in interest rates due to its financing, investing, and cash management activities. The Company has a Senior Revolving Credit Facility, Receivables Securitization Facility, other floating rate debt and cash and cash equivalents which are exposed to floating interest rates and may impact cash flow. As of December 31, 2017, the

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK (continued)

Company had no borrowings on its Senior Revolving Credit Facility or its Receivables Securitization Facility, with the balance of other floating rate debt of \$1 million. As of December 31, 2016, the Company had no borrowings on its Senior Revolving Credit Facility or its Receivables Securitization Facility, with the balance of other floating rate debt of less than \$1 million. Cash and cash equivalents were \$246 million and \$112 million at December 31, 2017 and 2016, respectively. A one percentage point increase (decrease) in interest rates at both December 31, 2017 and 2016 would increase (decrease) our annual net interest expense by less than \$1 million.

The fair market value of the Company's senior notes are subject to interest rate risk. The following table shows how a one percentage point increase / decrease in interest rates would impact the fair market value of the senior notes:

As of December 31, 2017:	Senior Notes Maturity Year					
	2019	2022	2024	2026	2036	2047
<u>Increase in interest rates</u>						
Decrease in fair value	n/a	4%	6%	7%	11%	15%
<u>Decrease in interest rates</u>						
Increase in fair value	n/a	5%	6%	8%	13%	19%

As of December 31, 2016:	Senior Notes Maturity Year					
	2019	2022	2024	2026	2036	2047
<u>Increase in interest rates</u>						
Decrease in fair value	2%	5%	6%	8%	11%	n/a
<u>Decrease in interest rates</u>						
Increase in fair value	2%	5%	7%	8%	12%	n/a

Commodity Price Risk

The Company is exposed to changes in prices of commodities used in its operations, primarily associated with energy, such as natural gas, and raw materials, such as asphalt and polystyrene. The Company enters into cash-settled natural gas swap contracts to protect against changes in natural gas prices that mature within 15 months; however, no financial instruments are currently used to protect against changes in raw material costs. At December 31, 2017 and 2016, the net fair value of such swap contracts was less than \$1 million and \$5 million, respectively. The potential change in fair value at December 31, 2017 and 2016 resulting from an increase (decrease) of 10% change in the underlying commodity prices would be an increase (decrease) of approximately \$2 million and \$3 million, respectively. This amount excludes the offsetting impact of the price risk inherent in the physical purchase of the underlying commodities.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Pages 51 through 112 of this filing are incorporated herein by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

The Company maintains (a) disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), and (b) internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on such evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company's disclosure controls and procedures are effective.

There has been no change in the Company's internal control over financial reporting during the quarter ended December 31, 2017 that materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

On June 27, 2017, the Company completed its acquisition of Pittsburgh Corning. As a result, the Company's management excluded the operations of Pittsburgh Corning from its assessment of internal control over financial reporting as of December 31, 2017. Pittsburgh Corning represented 4% of the Company's consolidated Total assets as of December 31, 2017 and 2% of the Company's consolidated Net sales for the year ended December 31, 2017. SEC guidelines permit companies to omit an acquired entity's internal control over financial reporting from its management assessment during the first year of the acquisition. We plan to fully integrate Pittsburgh Corning into our internal control over financial reporting in 2018.

A report of the Company's management on the Company's internal control over financial reporting is contained on page 52 hereof and is incorporated here by reference. PricewaterhouseCoopers LLP's report on the effectiveness of internal control over financial reporting is included in the Report of Independent Registered Public Accounting Firm beginning on page 53 hereof.

ITEM 9B. OTHER INFORMATION

None.

Part III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to directors and corporate governance will be presented in the 2018 Proxy Statement in the sections titled “Information Concerning Directors,” “Governance Information” and “Section 16(a) Beneficial Ownership Reporting Compliance,” and such information is incorporated herein by reference.

Information with respect to executive officers is included herein under Part I, “Executive Officers of Owens Corning.”

Code of Ethics for Senior Financial Officers

Owens Corning has adopted an Ethics Policy for Chief Executive and Senior Financial Officers that applies to our Chief Executive Officer, Chief Financial Officer and Controller. This policy is available on our website (www.owenscorning.com) under “Corporate Governance” located in the "Investing in Owens Corning" section and print copies will be made available free of charge upon request to the Secretary of the Company. To the extent required by applicable SEC rules or New York Stock Exchange listing standards, the Company intends to post any amendments or waivers to the above referenced codes of ethics to our website, under the tab entitled "Corporate Governance".

ITEM 11. EXECUTIVE COMPENSATION

Information regarding executive officer and director compensation will be presented in the 2018 Proxy Statement under the section titled “Executive Compensation,” exclusive of the subsection titled “Compensation Committee Report,” and the section titled “2017 Non-Management Director Compensation,” and such information is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding security ownership of certain beneficial owners and management and related stockholder matters, as well as equity compensation plan information, will be presented in the 2018 Proxy Statement under the sections titled “Security Ownership of Certain Beneficial Owners and Management” and “Securities Authorized for Issuance Under Equity Compensation Plans,” and such information is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, DIRECTOR INDEPENDENCE

Information regarding certain relationships and related transactions and director independence will be presented in the 2018 Proxy Statement under the sections titled “Certain Transactions with Related Persons,” “Review of Transactions with Related Persons,” “Director Qualifications Standards” and “Director Independence,” and such information is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information regarding principal accounting fees and services will be presented in the 2018 Proxy Statement under the sections titled “Principal Accountant Fees and Services,” and such information is incorporated herein by reference.

Part IV**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) DOCUMENTS FILED AS PART OF THIS REPORT

1. See Index to Consolidated Financial Statements on page 51 hereof.
2. See Index to Financial Statement Schedules on page 113 hereof.

EXHIBIT INDEX

Pursuant to the rules and regulations of the SEC, the Company has filed or incorporated by reference certain agreements as exhibits to this Annual Report on Form 10-K. These agreements may contain representations and warranties by the parties. These representations and warranties have been made solely for the benefit of the other party or parties to such agreements and (i) may have been qualified by disclosures made to such other party or parties, (ii) were made only as of the date of such agreements or such other date(s) as may be specified in such agreements and are subject to more recent developments, which may not be fully reflected in the Company's public disclosure, (iii) may reflect the allocation of risk among the parties to such agreements and (iv) may apply materiality standards different from what may be viewed as material to investors. Accordingly, these representations and warranties may not describe the Company's actual state of affairs at the date hereof and should not be relied upon.

Exhibit Number	Description
2.1	Purchase Agreement, dated as of October 27, 2017, by and among Owens Corning Finland Oy, Parry Investment S.A. and the individuals party thereto (incorporated by reference to Exhibit 2.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed February 5, 2018).
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100), for the quarter ended March 31, 2016).
3.2	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to Owens Corning's Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended March 31, 2016).
4.1	Indenture, dated as of October 31, 2006, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed November 2, 2006).
4.2	First Supplemental Indenture, dated as of April 13, 2007, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed April 13, 2007).
4.3	Second Supplemental Indenture, dated as of December 12, 2007, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2007).
4.4	Third Supplemental Indenture, dated as of April 24, 2008, by and among Owens Corning, each of the guarantors named therein and LaSalle Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100) for the quarter ended June 30, 2008).
4.6	Fourth Supplemental Indenture, dated as of May 26, 2010, by and among Owens Corning, each of the guarantors named therein and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K (File No. 1-33100), filed May 28, 2010).
4.7	Fifth Supplemental Indenture, dated as of October 3, 2016, by and among Owens Corning, each of the guarantors named therein and Wells Fargo Bank, National Association, as trustee (filed herewith).
4.8	Sixth Supplemental Indenture, dated as of February 27, 2017, by and among Owens Corning, each of the guarantors named therein and Wells Fargo Bank, National Association, as trustee (filed herewith).



- 4.9 [Seventh Supplemental Indenture, dated as of August 23, 2017, by and among Owens Corning, the guarantor named therein and Wells Fargo Bank, National Association, as successor trustee \(incorporated by reference to Exhibit 4.5 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\), for the quarter ended September 30, 2017\).](#)

- 4.10 [Indenture, dated as of June 2, 2009, between Owens Corning, certain of Owens Corning's subsidiaries and Wells Fargo Bank, National Association, as trustee \(incorporated by reference to Exhibit 4.1 to Owens Corning's Registration Statement on Form S-3 \(File No. 333-159689\), filed June 3, 2009\).](#)

- 4.11 [Second Supplemental Indenture, dated as of May 26, 2010, by and among Owens Corning, certain subsidiaries, and Wells Fargo Bank, National Association, as Trustee \(incorporated by reference to Exhibit 4.2 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed May 28, 2010\).](#)

- 4.12 [Third Supplemental Indenture, dated as of October 22, 2012, by and among Owens Corning, certain subsidiaries, and Wells Fargo Bank, National Association, as successor Trustee \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Form 8-K \(File No. 1-33100\), filed October 22, 2012\).](#)

- 4.13 [Form of 4.200% Senior Notes due 2022 \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed October 22, 2012\).](#)

- 4.14 [Fourth Supplemental Indenture, dated as of November 12, 2014, by and among Owens Corning, the guarantors named therein and Wells Fargo Bank, National Association, as Trustee \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\) filed November 12, 2014\).](#)

- 4.15 [Form of 4.200% Senior Notes due 2024 \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed November 12, 2014\).](#)

- 4.16 [Fifth Supplemental Indenture, dated as of August 8, 2016, by and among the Company, the guarantors party thereto and Wells Fargo Bank, National Association, as Trustee \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\) filed August 8, 2016\).](#)

- 4.17 [Form of 3.400% Senior Notes due 2026 \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\) filed August 8, 2016\).](#)

- 4.18 [Sixth Supplemental Indenture, dated as of October 3, 2016, by and among Owens Corning, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee \(incorporated by reference to Exhibit 4.9 to Post-Effective Amendment No. 1 to Owens Corning's Registration Statement on Form S-3 \(Registration No. 333-202011\), filed June 21, 2017\).](#)

- 4.19 [Seventh Supplemental Indenture, dated as of February 27, 2017, by and among Owens Corning, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee \(incorporated by reference to Exhibit 4.10 to Post-Effective Amendment No. 1 to Owens Corning's Registration Statement on Form S-3 \(Registration No. 333-202011\), filed June 21, 2017\).](#)

- 4.20 [Eighth Supplemental Indenture, dated as of June 26, 2017, by and among Owens Corning, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed June 26, 2017\).](#)

- 4.21 [Form of 4.300% Senior Notes due 2047 \(incorporated by reference to Exhibit 4.2 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed June 26, 2017\).](#)

- 4.22 [Ninth Supplemental Indenture, dated as of August 23, 2017, by and among Owens Corning, the guarantor named therein and Wells Fargo Bank, National Association, as trustee \(incorporated by reference to Exhibit 4.6 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\), for the quarter ended September 30, 2017\).](#)

- 4.23 [Tenth Supplemental Indenture, dated as of January 25, 2018, by and among Owens Corning, the guarantors party thereto and Wells Fargo Bank, National Association, as trustee \(incorporated by reference to Exhibit 4.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed January 25, 2018\).](#)

- 4.24 [Form of 4.400% Senior Notes due 2048 \(incorporated by reference to Exhibit 4.2 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed January 25, 2018\).](#)

- 10.1 [Amended and Restated Credit Agreement, dated as of November 13, 2015, by and among the Company, certain of its subsidiaries, the lenders signatory thereto and Wells Fargo Bank, National Association, as Administrative Agent, \(incorporated by reference to Exhibit 10.1 of Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed November 17, 2015\).](#)

- 10.2 [First Amendment to the Amended and Restated Credit Agreement, dated as of March 22, 2016, by and among the Company, certain of its subsidiaries, the lenders signatory thereto and Wells Fargo Bank, National Association, as Administrative Agent \(incorporated by reference to Exhibit 10.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed April 22, 2016\).](#)

- 10.3 [Acknowledgment and Agreement and Second Amendment to Amended and Restated Credit Agreement, dated as of May 27, 2016, \(incorporated by reference to Exhibit 10.40 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\), for the quarter ended June 30, 2016.](#)

- 10.4 [Purchase and Sale Agreement dated as of March 31, 2011 between Owens Corning Sales, LLC and Owens Corning Receivables LLC \(incorporated by reference to Exhibit 10.2 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed April 5, 2011\).](#)

- 10.5 [Amended and Restated Receivables Purchase Agreement dated as of December 16, 2011 \(incorporated by reference to Exhibit 10.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed December 19, 2011\).](#)

- 10.6 [Second Amendment to Amended and Restated Purchase Agreement dated as of July 26, 2013 \(incorporated by reference to Exhibit 10.1 to Owens Corning Current Report on Form 8-K \(File No. 1-33100\), filed July 29, 2013\).](#)

- 10.7 [Sixth Amendment to the Amended and Restated Receivables Purchase Agreement, dated as of March 24, 2017 \(incorporated by reference to Exhibit 10.36 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\), for the quarter ended March 31, 2017\).](#)

- 10.8 [Second Amended and Restated Receivables Purchase Agreement, dated as of May 5, 2017 \(incorporated by reference to Exhibit 10.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed May 9, 2017\).](#)

- 10.9 [First Amendment to Purchase and Sale Agreement, dated as of May 5, 2017, by and between Owens Corning Sales, LLC and Owens Corning Receivables LLC \(incorporated by reference to Exhibit 10.2 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\), for the quarter ended June 30, 2017\).](#)

- 10.10 [Performance Guaranty dated as of March 31, 2011 \(incorporated by reference to Exhibit 10.3 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed April 5, 2011\).](#)

- 10.11 [Amended and Restated Performance Guaranty, dated as of May 5, 2017 \(incorporated by reference to Exhibit 10.3 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\), for the quarter ended June 30, 2017\).](#)

- 10.12 [Term Loan Agreement, dated as of June 8, 2017, by and among Owens Corning, the lenders referred to therein and Wells Fargo Bank, National Association, as administrative agent \(incorporated by reference to Exhibit 10.4 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\), for the quarter ended June 30, 2017\).](#)

- 10.13 [Term Loan Agreement, dated as of October 27, 2017, by and among Owens Corning, the lenders signatory thereto and JPMorgan Chase Bank, N.A., as administrative agent \(filed herewith\).](#)

- 10.14 [364-Day Term Loan Agreement, dated as of October 27, 2017, by and among Owens Corning, the lenders signatory thereto and JPMorgan Chase Bank, N.A., as administrative agent \(filed herewith\).](#)

- 10.15 [Key Management Severance Agreement with Charles E. Dana \(incorporated by reference to Exhibit 10.18 to Owens Corning's annual report on Form 10-K \(File No. 1-33100\) for the year ended December 31, 2008\).*](#)

- 10.16 [Form of Key Management Severance Agreement for Executive Officers* \(incorporated by reference to Exhibit 10.10 to Owens Corning's Annual Report on Form 10-K \(File No. 1-33100\) for the year ended December 31, 2013\).*](#)
 - 10.17 [Amended and Restated Key Management Severance Agreement with Michael H. Thaman \(incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Annual Report on Form 10-K \(File No. 1-3660\) for the year ended December 31, 2005\).*](#)
 - 10.18 [Amendment, dated April 16, 2015, to Key Management Severance Agreement with Michael H. Thaman \(incorporated by reference to Exhibit 10.31 to Owens Corning's Quarterly Report on Form 10-Q \(File 1-33100\), for the quarter ended March 31, 2015\).*](#)
 - 10.19 [Form of Directors' Indemnification Agreement \(incorporated by reference to Exhibit 10.2 of Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed November 2, 2006\).](#)
 - 10.20 [Owens Corning Long-Term Incentive Plan \(incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Quarterly Report on Form 10-Q \(File No. 1-3660\) for the quarter ended June 30, 2003\).*](#)
 - 10.21 [Owens Corning Executive Supplemental Benefit Plan, 2009 Restatement \(incorporated by reference to Exhibit 10.28 to Owens Corning's annual report on Form 10-K \(File No. 1-33100\) for the year ended December 31, 2008\).*](#)
 - 10.22 [Corporate Incentive Plan Terms Applicable to Certain Executive Officers \(incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Quarterly Report on Form 10-Q \(File No. 1-3660\) for the quarter ended March 31, 1999\).*](#)
 - 10.23 [Amended and Restated Corporate Incentive Plan Terms Applicable to Certain Executive Officers \(incorporated by reference to Annex B to Owens Corning's Proxy Statement \(File No. 1-33100\), filed March 16, 2011\).*](#)
 - 10.24 [Owens Corning Supplemental Executive Retirement Plan, as amended and restated, effective as of January 1, 2009 \(incorporated by reference to Exhibit 10.30 to Owens Corning's annual report on Form 10-K \(File No. 1-33100\) for the year ended December 31, 2008\).*](#)
 - 10.25 [Corporate Incentive Plan Terms Applicable to Key Employees Other Than Certain Executive Officers \(incorporated by reference to Exhibit 10 to Owens Corning Sales, LLC's Quarterly Report on Form 10-Q \(File No. 1-3660\) for the quarter ended June 30, 1999\).*](#)
 - 10.26 [Corporate Incentive Plan Terms Applicable to Certain Executive Officers \(As Amended and Restated as of January 1, 2016\) \(incorporated by reference to Exhibit 10.38 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\) for the quarter ended March 31, 2016\).*](#)
 - 10.27 [Owens Corning Deferred Compensation Plan, effective as of January 1, 2007 \(incorporated by reference to Exhibit 10.5 to Owens Corning's Quarterly Report on Form 10-Q \(File No. 1-33100\) for the quarter ended March 31, 2007\).*](#)
 - 10.28 [First Amendment to the Owens Corning Deferred Compensation Plan, effective as of January 1, 2009 \(incorporated by reference to Exhibit 10.33 to Owens Corning's annual report on Form 10-K \(File No. 1-33100\) for the year ended December 31, 2008\).*](#)
 - 10.29 [Owens Corning Amended and Restated Deferred Compensation Plan, effective as of January 1, 2014 \(incorporated by reference to Exhibit 10.22 to Owens Corning's Annual Report on Form 10-K \(File No. 1-33100\) for the year ended December 31, 2013\).*](#)
 - 10.30 [Owens Corning 2010 Stock Plan \(incorporated by reference to Exhibit 10.1 to Owens Corning's Current Report on Form 8-K \(File No. 1-33100\), filed April 23, 2010\).*](#)
 - 10.31 [Owens Corning 2013 Stock Plan \(incorporated by reference to Annex C to Owens Corning's Proxy Statement \(File No 1-33100\), filed March 14, 2013\).*](#)
-

10.32	Owens Corning 2016 Stock Plan (incorporated by reference to Exhibit 10.39 to Owens Corning's Quarterly Report on Form 10-Q (File No. 1-33100) for the quarter ended March 31, 2016).*
10.33	Owens Corning Employee Stock Purchase Plan, effective as of April 18, 2013, (incorporated by reference to Annex B to Owens Corning's Proxy Statement (File No. 1-33100), filed March 14, 2013).*
10.34	Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Option Award (incorporated by reference to Exhibit 10.27 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).*
10.35	Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Performance Share Unit (incorporated by reference to Exhibit 10.28 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).*
10.36	Form of Owens Corning 2016 Long Term Incentive Program Award Agreement for Performance Share Unit (incorporated by reference to Exhibit 10.29 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2016).*
10.37	Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Restricted Stock Unit (incorporated by reference to Exhibit 10.29 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).*
10.38	Form of Owens Corning 2013 Long Term Incentive Program Award Agreement for Restricted Stock (incorporated by reference to Exhibit 10.30 to Owens Corning's Annual Report on Form 10-K (File No. 1-33100) for the year ended December 31, 2013).*
10.39	Form of Deferred Stock Unit Award Agreement for Directors (incorporated by reference to Exhibit 10.32 to Owens Corning's Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).*
10.40	Form of Long Term Incentive Program Award Agreement for Restricted Stock Unit (incorporated by reference to Exhibit 10.33 to Owens Corning's Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).*
10.41	Form of Long Term Incentive Program Award Agreement for Performance Share Unit (incorporated by reference to Exhibit 10.34 to Owens Corning's Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).*
10.42	Form of Long Term Incentive Program Award Agreement for Restricted Stock (incorporated by reference to Exhibit 10.35 to Owens Corning's Quarterly Report on Form 10-Q (File 1-33100), for the quarter ended June 30, 2015).*
21.1	Subsidiaries of Owens Corning (filed herewith).
23.1	Consent of PricewaterhouseCoopers LLP (filed herewith).
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) (filed herewith).
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) (filed herewith).
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350.
101.INS	XBRL Taxonomy Extension Schema
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase

101.LAB XBRL Taxonomy Extension Label Linkbase

101.PRE XBRL Taxonomy Extension Presentation Linkbase

+ Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Owens Corning agrees to furnish supplementally to the Securities and Exchange Commission a copy of any omitted schedule upon request.

* Denotes management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Form 10-K.

Owens Corning agrees to furnish to the U.S. Securities and Exchange Commission, upon request, copies of all instruments defining the rights of holders of long-term debt of Owens Corning where the total amount of securities authorized under each issue does not exceed 10% of the total assets of Owens Corning and its subsidiaries on a consolidated basis.

ITEM 16. SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

OWENS CORNING

By /s/ Michael H. Thaman
Michael H. Thaman,
Chairman of the Board, President and Chief Executive Officer
(Principal Executive Officer)

February 21, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>/s/ Michael H. Thaman</u> Michael H. Thaman, Chairman of the Board, President, Chief Executive Officer and Director	<u>February 21, 2018</u>
<u>/s/ Michael C. McMurray</u> Michael C. McMurray, Senior Vice President and Chief Financial Officer	<u>February 21, 2018</u>
<u>/s/ Kelly J. Schmidt</u> Kelly J. Schmidt, Vice President and Controller	<u>February 21, 2018</u>
<u>/s/ Cesar Conde</u> Cesar Conde, Director	<u>February 21, 2018</u>
<u>/s/ Adrienne Elsner</u> Adrienne Elsner, Director	<u>February 21, 2018</u>
<u>/s/ J. Brian Ferguson</u> J. Brian Ferguson, Director	<u>February 21, 2018</u>
<u>/s/ Ralph F. Hake</u> Ralph F. Hake, Director	<u>February 21, 2018</u>
<u>/s/ F. Philip Handy</u> F. Philip Handy, Director	<u>February 21, 2018</u>
<u>/s/ Edward F. Lonergan</u> Edward F. Lonergan, Director	<u>February 21, 2018</u>

/s/ Maryann T. Mannen

Maryann T. Mannen,
Director

February 21, 2018

/s/ James J. McMonagle

James J. McMonagle,
Director

February 21, 2018

/s/ W. Howard Morris

W. Howard Morris,
Director

February 21, 2018

/s/ Suzanne P. Nimocks

Suzanne P. Nimocks,
Director

February 21, 2018

/s/ John D. Williams

John D. Williams,
Director

February 21, 2018

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Management's Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934.

Management has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2017 based on criteria established in the Internal Control-Integrated Framework in 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

On June 27, 2017, the Company completed its acquisition of Pittsburgh Corning. As a result, the Company's management excluded the operations of Pittsburgh Corning from its assessment of internal control over financial reporting as of December 31, 2017 . Pittsburgh Corning represented 4% of the Company's consolidated Total assets as of December 31, 2017 and 2% of the Company's consolidated Net sales for the year ended December 31, 2017 . SEC guidelines permit companies to omit an acquired entity's internal control over financial reporting from its management assessment during the first year of the acquisition. We plan to fully integrate Pittsburgh Corning into our internal control over financial reporting in 2018.

PricewaterhouseCoopers LLP has audited the effectiveness of the internal controls over financial reporting as of December 31, 2017 as stated in their Report of Independent Registered Public Accounting Firm on page 53 hereof.

Based on our assessment, management determined that, as of December 31, 2017 , the Company's internal control over financial reporting was effective.

/s/ Michael H. Thaman

Michael H. Thaman,
President and Chief Executive Officer

February 21, 2018

/s/ Michael C. McMurray

Michael C. McMurray,
Senior Vice President and Chief Financial Officer

February 21, 2018

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Owens Corning:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Owens Corning and its subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of earnings, comprehensive earnings, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, including the related notes and financial statement schedule of valuation and qualifying accounts and reserves appearing in the Index to Condensed Financial Statement Schedule (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Pittsburgh Corning (as defined in Note 7) from its assessment of internal control over financial reporting as of December 31, 2017 because it was acquired by the Company in a purchase business combination during 2017. We have also excluded Pittsburgh Corning from our audit of internal control over financial reporting. Pittsburgh Corning is a wholly-owned subsidiary whose total assets and total net sales excluded from management's assessment and our audit of internal control over financial reporting represent approximately 4% and 2%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2017.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are

being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

Toledo, Ohio

February 21, 2018

We have served as the Company's auditor since 2002.

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EARNINGS
 (in millions, except per share amounts)

	Twelve Months Ended December 31,		
	2017	2016	2015
NET SALES	\$ 6,384	\$ 5,677	\$ 5,350
COST OF SALES	4,812	4,296	4,197
Gross margin	1,572	1,381	1,153
OPERATING EXPENSES			
Marketing and administrative expenses	620	584	525
Science and technology expenses	85	82	73
Other expenses, net	130	16	7
Total operating expenses	835	682	605
EARNINGS BEFORE INTEREST AND TAXES	737	699	548
Interest expense, net	107	108	100
Loss (gain) on extinguishment of debt	71	1	(5)
EARNINGS BEFORE TAXES	559	590	453
Income tax expense	269	188	120
Equity in net earnings (loss) of affiliates	—	(3)	1
NET EARNINGS	290	399	334
Net earnings attributable to noncontrolling interests	1	6	4
NET EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 289	\$ 393	\$ 330
EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS			
Basic	\$ 2.59	\$ 3.44	\$ 2.82
Diluted	\$ 2.55	\$ 3.41	\$ 2.79
Dividend	\$ 0.81	\$ 0.74	\$ 0.68
WEIGHTED AVERAGE COMMON SHARES			
Basic	111.5	114.4	117.2
Diluted	113.2	115.4	118.2

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS
(in millions)

	Twelve Months Ended December 31,		
	2017	2016	2015
NET EARNINGS	\$ 290	\$ 399	\$ 334
Currency translation adjustment (net of tax of \$15, \$(2), and \$(5), for the periods ended December 31, 2017, 2016 and 2015, respectively)	101	(37)	(115)
Pension and other postretirement adjustment (net of tax of \$(32), \$15, and \$1, for the periods ended December 31, 2017, 2016 and 2015, respectively)	98	(10)	(6)
Hedging adjustment (net of tax of \$2, \$(3), and \$(1), for the periods ended December 31, 2017, 2016 and 2015, respectively)	(3)	7	1
COMPREHENSIVE EARNINGS	486	359	214
Comprehensive earnings attributable to noncontrolling interests	1	6	4
COMPREHENSIVE EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 485	\$ 353	\$ 210

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
 (in millions)

	December 31, 2017	December 31, 2016
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 246	\$ 112
Receivables, less allowances of \$19 at December 31, 2017 and \$9 at December 31, 2016	806	678
Inventories	841	710
Assets held for sale	12	12
Other current assets	80	74
Total current assets	1,985	1,586
Property, plant and equipment, net	3,425	3,112
Goodwill	1,507	1,336
Intangible assets, net	1,360	1,138
Deferred income taxes	144	375
Other non-current assets	211	194
TOTAL ASSETS	\$ 8,632	\$ 7,741
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	\$ 1,277	\$ 960
Short-term debt	1	—
Long-term debt – current portion	4	3
Total current liabilities	1,282	963
Long-term debt, net of current portion	2,405	2,099
Pension plan liability	256	367
Other employee benefits liability	225	221
Deferred income taxes	37	36
Other liabilities	223	164
Redeemable equity	—	2
OWENS CORNING STOCKHOLDERS' EQUITY		
Preferred stock, par value \$0.01 per share (a)	—	—
Common stock, par value \$0.01 per share (b)	1	1
Additional paid in capital	4,011	3,984
Accumulated earnings	1,575	1,377
Accumulated other comprehensive deficit	(514)	(710)
Cost of common stock in treasury (c)	(911)	(803)
Total Owens Corning stockholders' equity	4,162	3,849
Noncontrolling interests	42	40
Total equity	4,204	3,889
TOTAL LIABILITIES AND EQUITY	\$ 8,632	\$ 7,741

(a) 10 shares authorized; none issued or outstanding at December 31, 2017 and December 31, 2016

(b) 400 shares authorized; 135.5 issued and 111.5 outstanding at December 31, 2017 ; 135.5 issued and 112.7 outstanding at December 31, 2016

(c) 24.0 shares at December 31, 2017 and 22.8 shares at December 31, 2016

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	Common Stock Outstanding		Treasury Stock		APIC (a)	Accumulated Earnings	AOCI (b)	NCI (c)	Total
	Shares	Par Value	Shares	Cost					
Balance at December 31, 2014	117.8	\$ 1	17.7	\$ (518)	\$ 3,954	\$ 805	\$ (550)	\$ 38	\$ 3,730
Net earnings attributable to Owens Corning	—	—	—	—	—	330	—	—	330
Net earnings attributable to noncontrolling interests	—	—	—	—	—	—	—	4	4
Currency translation adjustment	—	—	—	—	—	—	(115)	(2)	(117)
Pension and other postretirement adjustment (net of tax)	—	—	—	—	—	—	(6)	—	(6)
Deferred gain on hedging transactions (net of tax)	—	—	—	—	—	—	1	—	1
Issuance of common stock under share-based payment plans	1.4	—	(1.4)	46	(19)	—	—	—	27
Purchases of treasury stock	(3.3)	—	3.3	(140)	—	—	—	—	(140)
Stock-based compensation expense	—	—	—	—	30	—	—	—	30
Dividends declared	—	—	—	—	—	(80)	—	—	(80)
Balance at December 31, 2015	115.9	\$ 1	19.6	\$ (612)	\$ 3,965	\$ 1,055	\$ (670)	\$ 40	\$ 3,779
Net earnings attributable to Owens Corning	—	—	—	—	—	393	—	—	393
Net earnings attributable to noncontrolling interests	—	—	—	—	—	—	—	6	6
Currency translation adjustment	—	—	—	—	—	—	(37)	(2)	(39)
Pension and other postretirement adjustment (net of tax)	—	—	—	—	—	—	(10)	—	(10)
Deferred gain on hedging transactions (net of tax)	—	—	—	—	—	—	7	—	7
Redeemable equity issued	—	—	—	—	(2)	—	—	—	(2)
Issuance of common stock under share-based payment plans	1.7	—	(1.7)	57	(20)	—	—	—	37
Purchases of treasury stock	(4.9)	—	4.9	(248)	—	—	—	—	(248)
Stock-based compensation expense	—	—	—	—	41	—	—	—	41
Cumulative effect of accounting change (d)	—	—	—	—	—	14	—	—	14
Dividends declared	—	—	—	—	—	(85)	—	(4)	(89)
Balance at December 31, 2016	112.7	\$ 1	22.8	\$ (803)	\$ 3,984	\$ 1,377	\$ (710)	\$ 40	\$ 3,889
Net earnings attributable to Owens Corning	—	—	—	—	—	289	—	—	289
Net earnings attributable to noncontrolling interests	—	—	—	—	—	—	—	1	1
Currency translation adjustment	—	—	—	—	—	—	101	4	105
Pension and other postretirement adjustment (net of tax)	—	—	—	—	—	—	98	—	98
Deferred loss on hedging transactions (net of tax)	—	—	—	—	—	—	(3)	—	(3)
Redeemable equity redeemed and changes in subsidiary shares from noncontrolling interests	—	—	—	—	2	—	—	(1)	1
Issuance of common stock under share-based payment plans	1.3	—	(1.3)	48	(19)	—	—	—	29
Purchases of treasury stock	(2.5)	—	2.5	(156)	—	—	—	—	(156)
Stock-based compensation expense	—	—	—	—	44	—	—	—	44
Dividends declared	—	—	—	—	—	(91)	—	(2)	(93)
Balance at December 31, 2017	111.5	\$ 1	24.0	\$ (911)	\$ 4,011	\$ 1,575	\$ (514)	\$ 42	\$ 4,204

(a) Additional Paid in Capital (APIC)

(b) Accumulated Other Comprehensive Earnings (Deficit) ("AOCI")

(c) Noncontrolling Interest ("NCI")

(d) Cumulative effect of accounting change relates to our adoption of ASU 2016-09 "Compensation - Stock Compensation (Topic 718)."

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
 (in millions)

	Twelve Months Ended December 31,		
	2017	2016	2015
NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES			
Net earnings	\$ 290	\$ 399	\$ 334
Adjustments to reconcile net earnings to cash provided by operating activities:			
Depreciation and amortization	371	343	300
Deferred income taxes	183	136	64
Provision for pension and other employee benefits liabilities	74	11	15
Stock-based compensation expense	44	41	30
Other non-cash	18	4	(13)
Loss (gain) on extinguishment of debt	71	1	(5)
Change in operating assets and liabilities:			
Changes in receivables, net	(66)	55	(71)
Changes in inventories	(57)	5	150
Changes in accounts payable and accrued liabilities	187	25	28
Changes in other current and non-current assets	(10)	(4)	(19)
Pension fund contributions	(72)	(63)	(60)
Payments for other employee benefits liabilities	(18)	(18)	(20)
Other	1	8	9
Net cash flow provided by operating activities	<u>1,016</u>	<u>943</u>	<u>742</u>
NET CASH FLOW USED FOR INVESTING ACTIVITIES			
Cash paid for property, plant and equipment	(337)	(373)	(401)
Proceeds from the sale of assets or affiliates	3	—	28
Investment in subsidiaries and affiliates, net of cash acquired	(570)	(452)	—
Other	3	10	4
Net cash flow used for investing activities	<u>(901)</u>	<u>(815)</u>	<u>(369)</u>
NET CASH FLOW PROVIDED BY (USED FOR) FINANCING ACTIVITIES			
Proceeds from senior revolving credit and receivables securitization facilities	1,133	669	1,546
Payments on senior revolving credit and receivables securitization facilities	(1,133)	(669)	(1,652)
Proceeds from term loan borrowing	—	300	—
Payments on term loan borrowing	—	(300)	—
Proceeds from long-term debt	588	395	—
Payments on long-term debt	(351)	(163)	(8)
Dividends paid	(89)	(81)	(78)
Net increase (decrease) in short-term debt	1	(6)	(22)
Purchases of treasury stock	(159)	(247)	(138)
Other	13	14	19
Net cash flow provided by (used for) financing activities	<u>3</u>	<u>(88)</u>	<u>(333)</u>
Effect of exchange rate changes on cash	17	(18)	(11)
Net increase in cash, cash equivalents and restricted cash	135	22	29
Cash, cash equivalents and restricted cash at beginning of period	118	96	67
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD	<u>\$ 253</u>	<u>\$ 118</u>	<u>\$ 96</u>
DISCLOSURE OF CASH FLOW INFORMATION			
Cash paid during the year for income taxes	\$ 67	\$ 69	\$ 33
Cash paid during the year for interest	\$ 106	\$ 118	\$ 113

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business

Owens Corning, a Delaware corporation, is a leading global producer of glass fiber reinforcements and other materials for composite systems and of residential and commercial building materials. The Company operates within three segments: Composites, which includes the Company's Reinforcements and Downstream businesses; Insulation and Roofing. Through these lines of business, Owens Corning manufactures and sells products worldwide. The Company maintains leading market positions in many of its major product categories.

General

On February 1, 2018, the Board of Directors declared a quarterly dividend of \$0.21 per common share payable on April 3, 2018 to shareholders of record as of March 9, 2018.

Basis of Presentation

Unless the context requires otherwise, the terms "Owens Corning," "Company," "we" and "our" in these notes refer to Owens Corning and its subsidiaries.

The accompanying Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States.

Principles of Consolidation

The Consolidated Financial Statements of the Company include the accounts of majority-owned subsidiaries. Intercompany accounts and transactions are eliminated.

Reclassifications

Certain reclassifications have been made to the 2016 and 2015 Consolidated Financial Statements and Notes to the Consolidated Financial Statements to conform to the classifications used in 2017.

Use of Estimates and Assumptions

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

Revenue Recognition

Revenue is recognized when title and risk of loss pass to the customer and collectability is reasonably assured. Provisions for discounts and rebates to customers, returns and other adjustments are provided in the same period that the related sales are recorded and are based on historical experience, current conditions and contractual obligations, as applicable.

Cost of Sales

Cost of sales includes material, labor, energy and manufacturing overhead costs, including depreciation and amortization expense associated with the manufacture and distribution of the Company's products. Provisions for warranties are provided in the same period that the related sales are recorded and are based on historical experience, current conditions and contractual obligations, as applicable. Distribution costs include inbound freight costs; purchasing and receiving costs; inspection costs; warehousing costs; shipping and handling costs, which include costs incurred relating to preparing, packaging, and shipping products to customers; and other costs of the Company's distribution network. All shipping and handling costs billed to the customer are included as net sales in the Consolidated Statements of Earnings.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)**Marketing and Advertising Expenses**

Marketing and advertising expenses are included in Marketing and administrative expenses. These costs include advertising and marketing communications, which are expensed the first time the advertisement takes place. Marketing and advertising expenses for the years ended December 31, 2017, 2016 and 2015 were \$108 million, \$105 million and \$98 million, respectively.

Science and Technology Expenses

The Company incurs certain expenses related to science and technology. These expenses include salaries, building and equipment costs, utilities, administrative expenses, materials and supplies associated with the improvement and development of the Company's products and manufacturing processes. These costs are expensed as incurred.

Earnings per Share

Basic earnings per share are computed using the weighted-average number of common shares outstanding during the period. Diluted earnings per share reflect the dilutive effect of common equivalent shares and increased shares that would result from the conversion of equity securities. The effects of anti-dilution are not presented.

Cash, Cash Equivalents and Restricted Cash

The Company defines cash and cash equivalents as cash and time deposits with maturities of three months or less when purchased. On the Consolidated Statements of Cash Flows, the total of Cash, cash equivalents and restricted cash includes restricted cash of \$7 million and \$6 million as of December 31, 2017 and 2016, respectively. Restricted cash primarily represents amounts received from a counterparty related to its performance assurance on an executory contract, and is included in Other current assets on the Consolidated Balance Sheets. These amounts are contractually required to be set aside, and the counterparty can exchange the cash for another form of performance assurance at its discretion. There were no restricted cash amounts presented for the year ended December 31, 2015 in the Consolidated Statements of Cash Flows.

Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is an estimate of the amount of probable credit losses in our existing accounts receivable. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered.

Inventory Valuation

Inventory costs include material, labor, and manufacturing overhead costs, including depreciation and amortization expense associated with the manufacture and distribution of the Company's products. Inventories are stated at lower of cost or net realizable value and expense estimates are made for excess and obsolete inventories. Cost is determined by the first-in, first-out ("FIFO") method.

Investments in Affiliates

The Company accounts for investments in affiliates of 20% to 50% ownership when the Company does not have a controlling financial interest using the equity method under which the Company's share of earnings and losses of the affiliate is reflected in earnings and dividends are credited against the investment in affiliate when declared. Investments in affiliates are recorded in Other non-current assets on the Consolidated Balance Sheets and as of December 31, 2017 and 2016, the total value of investments was \$52 million and \$50 million, respectively.

Goodwill and Other Intangible Assets

Goodwill assets are not amortized but are tested for impairment on at least an annual basis. In the current year, as part of the annual assessment, the Company used a quantitative approach to determine whether the fair value of a reporting unit was less than its carrying amount.

As part of our testing process for goodwill the Company estimates fair values using a discounted cash flow approach from the perspective of a market participant. Significant estimates in the discounted cash flow approach are cash flow forecasts of our reporting units, the discount rate, the terminal business value and the projected income tax rate. The cash flow forecasts of the

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

reporting units are based upon management's long-term view of our markets and are the forecasts that are used by senior management and the Board of Directors to evaluate operating performance. The discount rate utilized is management's estimate of what the market's weighted average cost of capital is for a company with a similar debt rating and stock volatility, as measured by beta. The projected income tax rates utilized are the statutory tax rates for the countries where each reporting unit operates. The terminal business value is determined by applying a business growth factor to the latest year for which a forecast exists. As part of our goodwill quantitative testing process, we would evaluate whether there are reasonably likely changes to management's estimates that would have a material impact on the results of the goodwill impairment testing.

Other indefinite-lived intangible assets are not amortized but are tested for impairment on at least an annual basis or when determined to have a finite useful life. Substantially all of the indefinite-lived intangible assets are in trademarks and trade names. The Company uses the royalty relief approach to determine whether it is more likely than not that the fair value of these assets is less than its carrying amount. This review is performed annually, or when circumstances arise which indicate there may be impairment. When applying the royalty relief approach, the Company performs a discounted cash flow analysis based on the value derived from owning these trademarks and trade names and being relieved from paying royalty to third parties. Significant assumptions used include projected cash flows, discount rate, projected income tax rate and terminal business value.

The inputs for the goodwill and indefinite-lived intangible tests are considered Level 3 inputs under the fair value hierarchy as they are the Company's own data, and are unobservable in the marketplace. Indefinite-lived intangible assets purchased through acquisition are generally tested qualitatively for impairment in the first year following the acquisition before transitioning to the standard methodology described herein in subsequent years.

Identifiable intangible assets with a determinable useful life are amortized over that determinable life. Amortization expense for the years ended December 31, 2017, 2016 and 2015 was \$31 million, \$25 million and \$22 million, respectively. See Note 5 to the Consolidated Financial Statements for further discussion.

Properties and Depreciation

Property, plant and equipment are stated at cost and depreciated over their estimated useful lives using the straight-line method. Property, plant and equipment accounts are relieved of the cost and related accumulated depreciation when assets are disposed of or otherwise retired.

Precious metals used in our production tooling are included in property, plant and equipment and are depleted as they are consumed during the production process. Depletion typically represents an annual expense of less than 3% of the outstanding value and is recorded in Cost of sales on the Consolidated Statements of Earnings.

For the years ended December 31, 2017, 2016 and 2015, depreciation expense was \$340 million, \$318 million and \$278 million, respectively. In 2017, 2016 and 2015, depreciation expense included \$17 million, \$19 million and \$3 million, respectively, of accelerated depreciation related to restructuring actions further explained in Note 11 to the Consolidated Financial Statements.

The range of useful lives for the major components of the Company's plant and equipment is as follows:

Buildings and leasehold improvements	15 – 40 years
Machinery and equipment	
Furnaces	4 – 15 years
Information systems	5 – 10 years
Equipment	5 – 20 years

Expenditures for normal maintenance and repairs are expensed as incurred.

Asset Impairments

The Company evaluates tangible and intangible long-lived assets for impairment when triggering events have occurred. This requires significant assumptions including projected cash flows, projected income tax rate and terminal business value. These inputs are considered Level 3 inputs under the fair value hierarchy as they are the Company's own data, and are unobservable in the marketplace. Changes in management intentions, market conditions or operating performance could indicate that impairment charges might be necessary that would be material to the Company's Consolidated Financial Statements in any given period.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)**Income Taxes**

The Company recognizes current tax liabilities and assets for the estimated taxes payable or refundable on the tax returns for the current year. Deferred tax balances reflect the impact of temporary differences between the carrying amount of assets and liabilities and their tax basis. Amounts are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered. In addition, realization of certain deferred tax assets is dependent upon our ability to generate future taxable income. The Company records a valuation allowance to reduce its deferred tax assets to the amount that it believes is more likely than not to be realized. In addition, the Company estimates tax reserves to cover potential taxing authority claims for income taxes and interest attributable to audits of open tax years. Please refer to Note 19 for information on the Company's application of SEC Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act," ("SAB 118") on the provisional estimates used to record the effects of the recently-enacted tax legislation commonly known as the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act").

Taxes Collected from Customers and Remitted to Government Authorities and Taxes Paid to Vendors

Taxes are assessed by various governmental authorities at different rates on many different types of transactions. The Company charges sales tax or value-added tax (VAT) on sales to customers where applicable, as well as captures and claims back all available VAT that has been paid on purchases. VAT is recorded in separate payable or receivable accounts and does not affect revenue or cost of sales line items in the income statement. VAT receivable is recorded as a percentage of qualifying purchases at the time the vendor invoice is processed. VAT payable is recorded as a percentage of qualifying sales at the time an Owens Corning sale to a customer subject to VAT occurs. Amounts are paid to the taxing authority according to the method and collection prescribed by local regulations. Where applicable, VAT payable is netted against VAT receivable. The Company also pays sales tax to vendors who include a tax, required by government regulations, to the purchase price charged to the Company.

Pension and Other Postretirement Benefits

Accounting for pensions and other postretirement benefits involves estimating the cost of benefits to be provided well into the future and attributing that cost over the time period each employee works. To accomplish this, extensive use is made of assumptions about investment returns, discount rates, inflation, mortality, turnover and medical costs.

Derivative Financial Instruments

The Company recognizes all derivative instruments as either assets or liabilities at fair value on the balance sheet. To the extent that a derivative is effective as a cash flow hedge, the change in fair value of the derivative is deferred in accumulated other comprehensive income/deficit ("AOCI"). Any portion considered to be ineffective is reported in earnings immediately. To the extent that a derivative is effective as a fair value hedge, the change in the fair value of the derivative is offset by the change in the fair value of the item being hedged in the Consolidated Statements of Earnings. See Note 4 to the Consolidated Financial Statements for further discussion.

Fair Value Measurements

The carrying value of cash and cash equivalents, accounts receivable and short-term debt approximate fair value because of the short-term maturity of the instruments. Please refer to Notes 4 and 12 for additional fair value disclosure of derivative financial instruments and long-term debt, respectively.

Foreign Currency

The functional currency of the Company's subsidiaries is generally the applicable local currency. Assets and liabilities of foreign subsidiaries are translated into United States dollars at the period-end rate of exchange, and their Statements of Earnings and Statements of Cash Flows are converted on an ongoing basis at the monthly average rate. The resulting translation adjustment is included in AOCI in the Consolidated Balance Sheets and Consolidated Statements of Stockholders' Equity. Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency are included in the Consolidated Statements of Earnings as incurred. The Company recorded a foreign currency transaction loss of \$4 million, \$2 million and \$5 million during the years ended December 31, 2017, 2016, and 2015, respectively.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Accounting Pronouncements

The following table summarizes recent accounting standard updates (ASU) issued by the Financial Accounting Standards Board (FASB) that could have an impact on the Company's Consolidated Financial Statements:

Standard	Description	Effective Date for Company	Effect on the Consolidated Financial Statements
Recently issued standards:			
ASU 2014-09 "Revenue from Contracts with Customers (Topic 606)," as amended by ASU's 2015-14, 2016-08, 2016-10, 2016-11, 2016-12, 2016-20, 2017-05, 2017-13 and 2017-14.	This standard outlines a new, single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. Entities can adopt this standard either through a retrospective or modified-retrospective approach.	January 1, 2018	We do not expect that the adoption of this standard will have a material impact on our Consolidated Financial Statements, both at the adoption date and on an ongoing basis. We will use the modified-retrospective method to adopt the standard on January 1, 2018. Our implementation process included review of material revenue streams and customer contracts, design of new disclosures and assessment of internal controls over financial reporting. Many of our customer volume commitments are short-term (as explained on pg. 5 of Item 1A Risk Factors) and do not contain multiple-element arrangements. As a result, we do not expect many elements of the new standard to impact the accounting for our business model. We reached similar conclusions on the expected effect of the new standard on our recent acquisitions. Substantially all of our revenue will continue to be recognized at a point-in-time when control of goods transfers to the customer. This is consistent with our current revenue recognition accounting policy (as described in Note 1), in which we recognize revenue when title and risk of loss pass to the customer and collectability is reasonably assured. Control transfer typically occurs when goods are shipped from our facilities or at other predetermined control transfer points (for instance, destination terms or consignment arrangements). Our variable consideration estimates are largely consistent with the new standard, as we currently estimate different forms of variable consideration at the time of sale based on historical experience, current conditions and contractual obligations.
ASU 2016-02 "Leases (Topic 842)," as amended by ASU 2017-13 and 2018-01, and "Targeted Improvements" Proposed ASU exposure draft released on January 5, 2018.	The standard requires lessees to recognize a right-of-use asset and lease liability for all leases with terms of more than 12 months. The recognition and presentation of ASU expenses will depend on classification as a finance or operating lease. Entities will adopt this standard through a retrospective approach.	January 1, 2019	We are currently assessing the potential impact of this standard adoption on our financial reporting processes and disclosures. We believe that our adoption of the standard will likely have a material impact to our Consolidated Balance Sheets for the recognition of certain operating leases as right-of-use assets and lease liabilities. (Our operating lease obligations are described in Note 8). We are in the process of analyzing our lease portfolio and implementing systems to comply with the standard's retrospective adoption requirements. We are monitoring the outcome of the FASB's recent exposure draft, which could impact our transition and the comparative reporting at adoption.
ASU 2016-13 "Financial Instruments - Credit Losses (Topic 326)"	This standard replaces the incurred loss methodology for recognizing credit losses with a current expected credit losses model and applies to all financial assets, including trade receivables. Entities will adopt the standard using a modified-retrospective approach.	January 1, 2020	We are currently assessing the impact this standard will have on our Consolidated Financial Statements. Our current accounts receivable policy (as described in Note 1) uses historical and current information to estimate the amount of probable credit losses in our existing accounts receivable. We have not yet analyzed our current systems and methods to determine the impact of using forward-looking information to estimate expected credit losses.
ASU 2016-16 "Income Taxes (Topic 740)"	This standard clarifies that an entity should recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs.	January 1, 2018	We are still analyzing the effect of the transition on certain lines of our Consolidated Balance Sheets, but we do not expect the adoption of this standard to have a material impact on our Consolidated Financial Statements.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

1. BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

ASU 2017-07 "Compensation - Retirement Benefits (Topic 715)"	This standard requires that the other components of net benefit cost be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. Entities will adopt the presentation elements of this standard on a retrospective basis.	January 1, 2018	We do not expect that the adoption of this standard will have a material effect on our Consolidated Financial Statements on an ongoing basis. The standard's retrospective adoption, though, will likely have a significant impact on the classifications in our 2017 Consolidated Statements of Earnings, mainly due to pension settlement losses that were recorded in the second and fourth quarters of 2017 (as described in Note 13).
ASU 2017-12 "Derivatives and Hedging (Topic 815)"	This standard changes how an entity assesses effectiveness of derivative instruments, potentially resulting in less ineffectiveness and more derivatives qualifying for hedge accounting. Entities may early adopt the standard in any interim period, with the effect of adoption being applied to existing hedging relationships as of the beginning of the fiscal year of adoption.	January 1, 2019	We do not expect the adoption of this standard to have a material impact on our Consolidated Financial Statements.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

2. SEGMENT INFORMATION

The Company has three reportable segments: Composites, Insulation and Roofing. Accounting policies for the segments are the same as those for the Company. The Company's three reportable segments are defined as follows:

Composites – The Composites segment includes vertically integrated downstream activities. The Company manufactures, fabricates and sells glass reinforcements in the form of fiber. Glass reinforcement materials are also used downstream by the Composites segment to manufacture and sell glass fiber products in the form of fabrics, non-wovens and other specialized products.

Insulation – Within our Insulation segment, the Company manufactures and sells fiberglass insulation into residential, commercial, industrial and other markets for both thermal and acoustical applications. It also manufactures and sells glass fiber pipe insulation, flexible duct media, bonded and granulated mineral wool insulation, cellular glass insulation and foam insulation used in above- and below-grade construction applications.

Roofing – Within our Roofing segment, the Company manufactures and sells residential roofing shingles, oxidized asphalt materials, roofing components used in residential and commercial construction and specialty applications, and synthetic packaging materials.

NET SALES

The following table summarizes our net sales by segment and geographic region (in millions). Corporate eliminations (shown below) largely reflect the intercompany sales from Composites to Roofing. External customer sales are attributed to geographic region based upon the location from which the product is shipped to the external customer.

	Twelve Months Ended December 31,		
	2017	2016	2015
<u>Reportable Segments</u>			
Composites	\$ 2,068	\$ 1,952	\$ 1,902
Insulation	2,001	1,748	1,850
Roofing	2,553	2,194	1,766
Total reportable segments	6,622	5,894	5,518
Corporate eliminations	(238)	(217)	(168)
NET SALES	\$ 6,384	\$ 5,677	\$ 5,350
<u>External Customer Sales by Geographic Region</u>			
United States	\$ 4,495	\$ 3,963	\$ 3,697
Europe	661	550	515
Asia Pacific	675	666	662
Canada and other	553	498	476
NET SALES	\$ 6,384	\$ 5,677	\$ 5,350

EARNINGS BEFORE INTEREST AND TAXES

Earnings before interest and taxes (EBIT) by segment consists of net sales less related costs and expenses and are presented on a basis that is used internally for evaluating segment performance. Certain items, such as general corporate expenses or income and certain other expense or income items, are excluded from the internal evaluation of segment performance. Accordingly, these items are not reflected in EBIT for our reportable segments and are included in the Corporate, Other and Eliminations category.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

2. SEGMENT INFORMATION (continued)

The following table summarizes EBIT by segment (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
<u>Reportable Segments</u>			
Composites	\$ 291	\$ 264	\$ 232
Insulation	177	126	160
Roofing	535	486	266
Total reportable segments	1,003	876	658
Restructuring costs	(48)	(28)	(2)
Acquisition-related costs	(15)	(9)	—
Recognition of acquisition inventory fair value step-up	(5)	(10)	—
Litigation settlement gain, net of legal fees	29	—	—
Pension settlement losses	(64)	—	—
Environmental liability charges	(15)	—	—
General corporate expense and other	(148)	(130)	(108)
Total Corporate, other and eliminations	\$ (266)	\$ (177)	\$ (110)
EBIT	\$ 737	\$ 699	\$ 548

TOTAL ASSETS AND PROPERTY, PLANT AND EQUIPMENT BY GEOGRAPHIC REGION

The following table summarizes total assets by segment and property, plant and equipment by geographic region (in millions):

	December 31,	
	2017	2016
TOTAL ASSETS		
<u>Reportable Segments</u>		
Composites	\$ 2,486	\$ 2,375
Insulation	3,618	2,864
Roofing	1,621	1,553
Total reportable segments	7,725	6,792
Cash and cash equivalents	246	112
Current and noncurrent deferred income taxes	144	375
Investments in affiliates	52	50
Assets held for sale	12	12
Corporate property, plant and equipment, other assets and eliminations	453	400
CONSOLIDATED TOTAL ASSETS	\$ 8,632	\$ 7,741
<u>PROPERTY, PLANT AND EQUIPMENT BY GEOGRAPHIC REGION</u>		
	2017	2016
United States	\$ 2,164	\$ 2,070
Europe	479	351
Asia Pacific	459	360
Canada and other	323	331
TOTAL PROPERTY, PLANT AND EQUIPMENT	\$ 3,425	\$ 3,112

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

2. SEGMENT INFORMATION (continued)**PROVISION FOR DEPRECIATION AND AMORTIZATION**

The following table summarizes the provision for depreciation and amortization by segment (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
<u>Reportable Segments</u>			
Composites	\$ 144	\$ 138	\$ 125
Insulation	124	106	101
Roofing	50	46	39
Total reportable segments	318	290	265
General corporate depreciation and amortization (a)	53	53	35
CONSOLIDATED PROVISION FOR DEPRECIATION AND AMORTIZATION	\$ 371	\$ 343	\$ 300

(a) In 2017, 2016 and 2015, General corporate depreciation and amortization expense included \$17 million, \$19 million and \$3 million, respectively, of accelerated depreciation related to restructuring actions further explained in Note 11 to the Consolidated Financial Statements.

ADDITIONS TO PROPERTY, PLANT AND EQUIPMENT

The following table summarizes additions to property, plant and equipment by segment (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
<u>Reportable Segments</u>			
Composites	\$ 148	\$ 152	\$ 186
Insulation	151	154	141
Roofing	66	66	44
Total reportable segments	365	372	371
General corporate additions	37	42	40
CONSOLIDATED ADDITIONS TO PROPERTY, PLANT AND EQUIPMENT	\$ 402	\$ 414	\$ 411

The amounts in the table above represent Additions to property, plant and equipment on an accrual basis.

3. INVENTORIES

Inventories consist of the following (in millions):

	December 31,	
	2017	2016
Finished goods	\$ 562	\$ 482
Materials and supplies	279	228
Total inventories	\$ 841	\$ 710

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

4. DERIVATIVE FINANCIAL INSTRUMENTS

The Company is exposed to, among other risks, the impact of changes in commodity prices, foreign currency exchange rates, and interest rates in the normal course of business. The Company's risk management program is designed to manage the exposure and volatility arising from these risks, and utilizes derivative financial instruments to offset a portion of these risks. The Company uses derivative financial instruments only to the extent necessary to hedge identified business risks, and does not enter into such transactions for trading purposes.

The Company generally does not require collateral or other security with counterparties to these financial instruments and is therefore subject to credit risk in the event of nonperformance; however, the Company monitors credit risk and currently does not anticipate nonperformance by other parties. Contracts with counterparties generally contain right of offset provisions. These provisions effectively reduce the Company's exposure to credit risk in situations where the Company has gain and loss positions outstanding with a single counterparty. It is the Company's policy to offset on the Consolidated Balance Sheets the amounts recognized for derivative instruments with any cash collateral arising from derivative instruments executed with the same counterparty under a master netting agreement. As of December 31, 2017 and 2016, the Company did not have any amounts on deposit with any of its counterparties, nor did any of its counterparties have any amounts on deposit with the Company.

Our derivatives consist of natural gas forward swaps, cross currency swaps and foreign exchange forward contracts, all of which are over-the-counter and not traded through an exchange. The Company uses widely accepted valuation tools to determine fair value, such as discounting cash flows to calculate a present value for the derivatives. The models use Level 2 inputs, such as forward curves and other commonly quoted observable transactions and prices. The fair value of our derivatives and hedging instruments are all classified as Level 2 investments within the three-tier hierarchy.

The following table presents the fair value of derivatives and hedging instruments and the respective location on the Consolidated Balance Sheets (in millions):

	Location	Fair Value at	
		December 31, 2017	December 31, 2016
<u>Derivative assets designated as hedging instruments:</u>			
<u>Net investment hedges:</u>			
Cross currency swaps	Other current assets	\$ 7	\$ 4
Cross currency swaps	Other non-current assets	\$ —	\$ 6
<u>Cash flow hedges:</u>			
Natural gas forward swaps	Other current assets	\$ 1	\$ 4
<u>Derivative liabilities designated as hedging instruments:</u>			
<u>Net investment hedges:</u>			
Cross currency swaps	Other liabilities	\$ 38	\$ —
<u>Cash flow hedges:</u>			
Natural gas forward swaps	Accounts payable and accrued liabilities	\$ 1	\$ —
<u>Derivative assets not designated as hedging instruments:</u>			
Natural gas forward swaps	Other current assets	\$ —	\$ 1
Foreign exchange forward contracts	Other current assets	\$ 1	\$ 1
<u>Derivative liabilities not designated as hedging instruments:</u>			
Foreign exchange forward contracts	Accounts payable and accrued liabilities	\$ 1	\$ 2

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

4. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

The following table presents the notional of derivatives and hedging instruments on the Consolidated Balance Sheets (in millions):

	Unit of Measure	Notional Amount	
		December 31, 2017	
<u>Net investment hedges:</u>			
Cross currency swaps	U.S. Dollars	\$	516
<u>Cash flow hedges:</u>			
Natural gas forward swaps U.S. indices	MMBtu		5
Natural gas forward swaps European indices	MMBtu (equivalent)		1

The Company had notional amounts of \$109 million for derivative hedging instruments related to non-designated foreign currency exposure in U.S. Dollars primarily relative to Brazilian Real, Chinese Yuan, Indian Rupee, Japanese Yen, and South Korean Won. In addition, the Company had notional amounts of \$34 million for derivative financial instruments related to non-designated foreign currency exposure in European Euro primarily related to the Russian Ruble. Please refer to the Other Derivatives section below for more detail on these instruments.

The following table presents the impact and respective location of derivative activities on the Consolidated Statements of Earnings (in millions):

	Location	Twelve Months Ended December 31,		
		2017	2016	2015
<u>Derivative activity designated as hedging instruments:</u>				
<u>Natural gas:</u>				
Amount of (gain)/loss reclassified from AOCI into earnings (effective portion)	Cost of sales	\$ (1)	\$ 6	\$ 10
Amount of loss recognized in earnings (ineffective portion)	Other expenses, net	\$ 2	\$ —	\$ —
<u>Foreign currency:</u>				
Amount of loss reclassified from AOCI into earnings (effective portion)	Other expenses, net	\$ —	\$ 1	\$ —
<u>Interest rate:</u>				
Amount of loss recognized in earnings	Interest expense, net	\$ 1	\$ 1	\$ —
<u>Derivative activity not designated as hedging instruments:</u>				
<u>Natural gas:</u>				
Amount of (gain)/loss recognized in earnings	Other expenses, net	\$ —	\$ (2)	\$ 1
<u>Foreign currency exchange contract:</u>				
Amount of loss/(gain) recognized in earnings (a)	Other expenses, net	\$ 5	\$ 3	\$ (6)

(a) Losses and gains related to foreign currency derivatives were substantially offset by net revaluation impacts on foreign currency denominated balance sheet exposures, which were also recorded in Other expenses, net.

Cash Flow Hedges

The Company uses a combination of derivative financial instruments, which qualify as cash flow hedges, and physical contracts to manage forecasted exposure to electricity and natural gas prices. The Company's policy for electricity exposure is to hedge up to 75% of its total forecasted exposure for the current calendar year and up to 65% of its total forecasted exposure for the first calendar year forward. The Company's policy for natural gas exposure is to hedge up to 75% of its total forecasted exposure for the next three months and up to 60% of its total forecasted exposure for the following three months, and lesser amounts for the

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

4. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

remaining periods. Based on market conditions, approved variation from these standard policies may occur for certain geographic regions. Currently, the Company is managing risk associated with electricity prices only through physical contracts and has natural gas derivatives designated as hedging instruments that mature within 15 months.

The Company performs an analysis for effectiveness of its derivatives designated as hedging instruments at the end of each quarter based on the terms of the contracts and the underlying items being hedged. The effective portion of the change in the fair value of cash flow hedges is deferred in AOCI and is subsequently recognized in Cost of sales on the Consolidated Statements of Earnings for commodity hedges, when the hedged item impacts earnings. Changes in the fair value of derivative assets and liabilities designated as hedging instruments are shown in the Other non-cash line within operating activities on the Consolidated Statements of Cash Flows. Any portion of the change in fair value of derivatives designated as hedging instruments that is determined to be ineffective is recorded in Other expenses, net on the Consolidated Statements of Earnings.

As of December 31, 2017, less than \$1 million of loss included in AOCI on the Consolidated Balance Sheets relate to natural gas contracts that are expected to impact earnings during the next 12 months. Transactions and events that are expected to occur over the next 12 months that will necessitate recognizing these deferred amounts include the recognition of the hedged item through earnings.

Net Investment Hedges

The Company uses cross currency forward contracts to hedge a portion of the net investment in foreign subsidiaries against fluctuations in foreign exchange rates (primarily the European Euro). For derivative instruments that are designated and qualify as hedges of net investments in foreign operations, settlements and changes in fair values of the derivative instruments are recognized in Currency translation adjustment, a component of AOCI, to offset the changes in the values of the net investments being hedged. Any portion of net investment hedges that is determined to be ineffective is recorded in Other expenses, net on the Consolidated Statements of Earnings. Cash settlements are included in Other investing activities in the Consolidated Statements of Cash Flows.

Other Derivatives

The Company uses forward currency exchange contracts to manage existing exposures to foreign exchange risk related to assets and liabilities recorded on the Consolidated Balance Sheet. Gains and losses resulting from the changes in fair value of these instruments are recorded in Other expenses, net on the Consolidated Statements of Earnings.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

5. GOODWILL AND OTHER INTANGIBLE ASSETS

The Company tests goodwill and indefinite-lived intangible assets for impairment as of October 1 each year, or more frequently should circumstances change or events occur that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The annual tests performed in 2017 resulted in no impairment of goodwill or indefinite-lived intangible assets.

Intangible assets and goodwill consist of the following (in millions):

	Weighted Average Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
December 31, 2017				
Amortizable intangible assets:				
Customer relationships	20	\$ 363	\$ (109)	\$ 254
Technology	18	255	(116)	139
Other	8	47	(26)	21
Indefinite-lived intangible assets:				
Trademarks		946	—	946
Total intangible assets		\$ 1,611	\$ (251)	\$ 1,360
Goodwill		\$ 1,507		

	Weighted Average Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
December 31, 2016				
Amortizable intangible assets:				
Customer relationships	22	\$ 252	\$ (94)	\$ 158
Technology	19	216	(103)	113
Other	9	45	(23)	22
Indefinite-lived intangible assets:				
Trademarks		845	—	845
Total intangible assets		\$ 1,358	\$ (220)	\$ 1,138
Goodwill		\$ 1,336		

Goodwill

The 2017 goodwill increase was primarily related to \$156 million of goodwill from the acquisition of Pittsburgh Corning. The changes in the net carrying amount of goodwill by segment are as follows (in millions):

	Composites	Insulation	Roofing	Total
Balance at December 31, 2016	\$ 55	888	\$ 393	\$ 1,336
Acquisitions (see Note 7)	2	156	—	158
Foreign currency translation	1	5	7	13
Balance at December 31, 2017	\$ 58	\$ 1,049	\$ 400	\$ 1,507

Other Intangible Assets

The Company amortizes the cost of other intangible assets over their estimated useful lives which, individually, range up to 25 years. The Company's future cash flows are not materially impacted by its ability to extend or renew agreements related to its amortizable intangible assets. These costs are reported in Other expenses, net on the Consolidated Statements of Earnings.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

5. GOODWILL AND OTHER INTANGIBLE ASSETS (continued)

The Other category below primarily includes franchise agreements and emission rights. The changes in the gross carrying amount of intangible assets by asset group are as follows (in millions):

	Customer Relationships	Technology	Trademarks	Other	Total
Balance at December 31, 2016	\$ 252	\$ 216	\$ 845	\$ 45	\$ 1,358
Acquisitions (see Note 7)	107	37	101	—	245
Foreign currency translation	4	2	—	2	8
Balance at December 31, 2017	\$ 363	\$ 255	\$ 946	\$ 47	\$ 1,611

The estimated amortization expense for intangible assets for the next five years is as follows (in millions):

Period	Amortization (a) (b)
2018 \$	35
2019 \$	35
2020 \$	35
2021 \$	34
2022 \$	30

(a) The yearly amortization amounts in the table above include approximately \$8 million of amortization expense related to the preliminary purchase price allocation of the acquisition of Pittsburgh Corning Corporation and Pittsburgh Corning Europe NV (collectively "Pittsburgh Corning"); see Note 7 for more details of this acquisition.

(b) The figures in the table above do not include yearly amortization expense estimates related to the acquisition of Paroc Group Oy ("Paroc"), which closed subsequent to year-end on February 5, 2018; see Note 7 for more details of this acquisition.

6. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following (in millions):

	December 31, 2017	December 31, 2016
Land	\$ 251	\$ 189
Buildings and leasehold improvements	944	874
Machinery and equipment	4,211	3,818
Construction in progress	350	250
	5,756	5,131
Accumulated depreciation	(2,331)	(2,019)
Property, plant and equipment, net	\$ 3,425	\$ 3,112

Machinery and equipment includes certain precious metals used in our production tooling, which comprise approximately 12% and 14% of total machinery and equipment as of December 31, 2017 and December 31, 2016, respectively. Precious metals used in our production tooling are depleted as they are consumed during the production process, which typically represents an annual expense of less than 3% of the outstanding carrying value.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

7. ACQUISITIONS

During 2017, the Company completed acquisitions with an aggregate purchase price of \$570 million, net of cash acquired.

Pittsburgh Corning Acquisition

On June 27, 2017, the Company acquired all the outstanding equity of Pittsburgh Corning, the world's leading producer of cellular glass insulation systems for commercial and industrial markets, for approximately \$563 million, net of cash acquired. This acquisition expands the Company's position in commercial and industrial product offerings and grows its presence in Europe and Asia. Pittsburgh Corning's operating results since the date of acquisition and a preliminary purchase price allocation have been included in the Company's Insulation segment in the Consolidated Financial Statements. The Company is continuing to obtain information to complete its valuation of certain assets and liabilities. During the year ended December 31, 2017, the Company recorded immaterial measurement period adjustments to the purchase price allocation.

The following table details the identifiable indefinite and definite-lived intangible assets acquired, their preliminary fair values and estimated weighted average useful lives (in millions):

Type of Intangible Asset	Preliminary Fair Value	Weighted Average Useful Life
Customer relationships	\$ 107	19
Technology	37	15
Trademarks	101	indefinite
Total	\$ 245	

During 2017, the Consolidated Statements of Earnings included \$133 million in Net sales attributable to the acquisition and a \$5 million charge related to inventory fair value step-up in Cost of sales. Goodwill has been initially valued at approximately \$156 million, with none of the amount expected to be tax-deductible. The factors contributing to the recognition of the amount of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the Pittsburgh Corning acquisition and will accelerate making the Company the leading provider of insulation solutions by building on core glass technologies. The acquisition also included cash of approximately \$52 million. The Company expects to complete its valuations no later than one year from the acquisition date and adjustments will continue to be made to the fair value of the identifiable assets acquired and liabilities assumed. Those adjustments may or may not be material. The pro forma effect of this acquisition on Net sales and Net earnings attributable to Owens Corning was not material.

InterWrap Acquisition

On April 21, 2016, the Company acquired all outstanding shares of InterWrap Holdings, Inc. ("InterWrap"), a leading manufacturer of roofing underlayment and packaging materials, for approximately \$452 million, net of cash acquired. This acquisition expands the Company's position in roofing components, strengthens the Company's capabilities to support the conversion from organic to synthetic underlayment and accelerates its growth in the roofing components market. Interwrap's operating results have been included in the Roofing segment of the Company's Consolidated Financial Statements since the date of the acquisition. During the year ended December 31, 2017, the Consolidated Statements of Earnings included \$86 million in Net sales attributable to the InterWrap acquisition (related to the one-year post-acquisition period). The pro forma effect of this acquisition on Net sales and Net earnings attributable to Owens Corning was not material.

Paroc Acquisition

On February 5, 2018, the Company acquired all the outstanding equity of Paroc, a leading producer of mineral wool insulation for building and technical applications in Europe, for an enterprise value of approximately \$1.1 billion (900 million Euro). The acquisition of Paroc expands the Company's mineral wool technology, grows its presence in the European insulation market, provides access to a variety of new end-use markets and will increase the Insulation segment's geographic sales mix outside of the U.S. and Canada. Operating results of the acquisition will be included in the Company's Insulation segment within the Consolidated Financial Statements beginning on February 5, 2018. The Company is in the process of valuing certain identifiable assets and liabilities, and the purchase price allocation will be completed with finalization of these valuations.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

8. OPERATING LEASES

The Company leases certain equipment and facilities under operating leases expiring on various dates through 2027. Some of these leases include cost-escalation clauses. Such cost-escalation clauses are recognized on a straight-line basis over the lease term. Total rental expense was \$87 million, \$79 million and \$88 million in the years ended December 31, 2017, 2016 and 2015, respectively. At December 31, 2017, the minimum future rental commitments under non-cancelable operating leases with initial maturities greater than one year payable over the remaining lives of the leases are (in millions):

Period	Minimum Future Rental Commitments	
2018	\$	68
2019	\$	59
2020	\$	45
2021	\$	32
2022	\$	22
2023 and beyond	\$	36

9. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities consist of the following current portions of these liabilities (in millions):

	December 31,	
	2017	2016
Accounts payable	\$ 834	\$ 615
Payroll, vacation pay and incentive compensation	198	160
Payroll, property and other taxes	71	46
Other employee benefits liabilities	35	36
Dividends payable	24	23
Warranties	15	13
Deferred revenue	10	11
Legal, environmental and audit costs	17	8
Accrued interest	22	11
Restructuring costs	15	2
Other	36	35
Total	<u>\$ 1,277</u>	<u>\$ 960</u>

10. WARRANTIES

The Company records a liability for warranty obligations at the date the related products are sold. Adjustments are made as new information becomes available. A reconciliation of the warranty liability is as follows (in millions):

	December 31,	
	2017	2016
Beginning balance	\$ 52	\$ 43
Amounts accrued for current year	18	21
Settlements of warranty claims	(15)	(12)
Ending balance	<u>\$ 55</u>	<u>\$ 52</u>

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

11. RESTRUCTURING AND ACQUISITION-RELATED COSTS

The Company may incur restructuring, transaction and integration costs related to acquisitions, and may incur restructuring costs in connection with its global cost reduction and productivity initiatives.

Acquisition-Related Costs

During 2017, the Company incurred \$15 million of transaction and integration costs related to its announced acquisitions. Please refer to Note 7 of the Consolidated Financial Statements for further information on these acquisitions. These costs are recorded in the Corporate, Other and Eliminations category. See the Restructuring Costs paragraph below for detail on additional costs related to these acquisitions. The following table presents the impact and respective location of acquisition-related costs for 2017 in the Consolidated Statements of Earnings (in millions):

Location	InterWrap Acquisition	Pittsburgh Corning Acquisition	Paroc Acquisition	Total
Marketing and administrative expenses	\$ 1	\$ 3	\$ 2	6
Other expenses, net	—	9	—	9
Total acquisition-related costs	\$ 1	\$ 12	\$ 2	15

Restructuring CostsPittsburgh Corning Acquisition-Related Restructuring

Following the acquisition of Pittsburgh Corning into the Company's Insulation segment, the Company took actions to realize expected synergies from the newly acquired operations. During 2017, the Company recorded \$17 million of charges related to these actions, mainly comprised of severance.

2017 Cost Reduction Actions

During the second quarter of 2017, the Company took actions to avoid future capital outlays and reduce costs in its Composites segment, mainly through decisions to close certain sub-scale manufacturing facilities in Asia Pacific (Doudian, Peoples Republic of China and Thimmapur, India) and North America (Mexico City, Mexico and Brunswick, Maine) and to reposition assets in its Chambéry, France operation. During 2017, the Company recorded \$29 million of charges, comprised of \$11 million of severance, \$16 million of accelerated depreciation, and \$2 million of exit costs associated with these actions. The Company expects to recognize approximately \$20 million of incremental costs in 2018, of which about \$7 million is accelerated depreciation.

Other Restructuring Actions

During 2017, the Company incurred an immaterial amount of costs related to its 2016 cost reduction actions and InterWrap acquisition-related restructuring. The Company does not expect to incur any additional costs related to these actions. Please refer to Note 11 of our 2016 Form 10-K for more information about these restructuring actions.

Consolidated Statements of Earnings Classification

The following table presents the impact and respective location of total restructuring costs on the Consolidated Statements of Earnings, which are included in our Corporate, Other and Eliminations category (in millions):

Type of Cost	Location	Twelve Months Ended December 31,		
		2017	2016	2015
Accelerated depreciation	Cost of sales	\$ 17	\$ 19	3
Other exit costs	Cost of sales	3	6	7
Severance	Other expenses, net	27	1	(3)
Other exit costs	Other expenses, net	1	2	(5)
Total restructuring costs		\$ 48	\$ 28	2

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

11. RESTRUCTURING AND ACQUISITION-RELATED COSTS (continued)

Summary of Unpaid Liabilities

The following table summarizes the status of the unpaid liabilities from the Company's restructuring activities (in millions):

	2017 Cost Reduction Actions	Pittsburgh Corning Acquisition-Related Restructuring	2016 Cost Reduction Actions	InterWrap Acquisition- Related Restructuring	2014 Cost Reduction Actions	Total
Balance at December 31, 2016	\$ —	\$ —	\$ 1	\$ —	\$ 1	\$ 2
Restructuring costs	29	17	1	1	—	48
Payments	—	(7)	(1)	—	(1)	(9)
Non-cash items and reclassifications to other accounts	(18)	(1)	(1)	(1)	—	(21)
Balance at December 31, 2017	\$ 11	\$ 9	\$ —	\$ —	\$ —	\$ 20
Cumulative charges incurred	\$ 29	\$ 17	\$ 19	\$ 4	\$ 45	\$ 114

As of December 31, 2017, the remaining liability balance is comprised of \$20 million of severance, inclusive of \$5 million of non-current severance and \$15 million of severance the Company expects to pay over the next twelve months.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

12. DEBT

Details of the Company's outstanding long-term debt, as well as the fair values, are as follows (in millions):

	December 31, 2017		December 31, 2016	
	Carrying Value	Fair Value	Carrying Value	Fair Value
9.00% senior notes, net of discount and financing fees, due 2019	\$ —	n/a	\$ 143	114%
4.20% senior notes, net of discount and financing fees, due 2022	597	105%	596	104%
4.20% senior notes, net of discount and financing fees, due 2024	392	105%	391	102%
3.40% senior notes, net of discount and financing fees, due 2026	395	98%	395	95%
7.00% senior notes, net of discount and financing fees, due 2036	400	132%	536	118%
4.30% senior notes, net of discount and financing fees, due 2047	588	99%	—	n/a
Various capital leases, due through and beyond 2050 (a)	31	100%	33	100%
Unamortized interest rate swap basis adjustment	6	n/a	8	n/a
Total long-term debt	2,409	n/a	2,102	n/a
Less – current portion (a)	4	100%	3	100%
Long-term debt, net of current portion	\$ 2,405	n/a	\$ 2,099	n/a

(a) The Company determined that the book value of the above noted debt instruments approximates fair value.

The fair values of the Company's outstanding long-term debt instruments were estimated using market observable inputs, including quoted prices in active markets, market indices and interest rate measurements. Within the hierarchy of fair value measurements, these are Level 2 fair values.

Senior Notes

The Company issued \$400 million of 2048 senior notes on January 25, 2018 subject to \$11 million of discounts and issuance costs. Interest on the 2048 senior notes is payable semiannually in arrears on January 30 and July 30 each year, beginning on July 30, 2018. The proceeds from the 2048 senior notes were used, along with borrowings on a \$600 million term loan commitment and borrowings on the Receivables Securitization Facility, to fund the purchase of Paroc in the first quarter of 2018.

The Company issued \$600 million of 2047 senior notes on June 26, 2017 subject to \$12 million of discounts and issuance costs. Interest on the 2047 senior notes is payable semiannually in arrears on January 15 and July 15 each year, beginning on January 15, 2018. A portion of the proceeds from the 2047 senior notes was used to fund the purchase of Pittsburgh Corning in the second quarter of 2017 and for general corporate purposes. In the third quarter of 2017, a portion of the proceeds was used by the Company, in addition to borrowings on the Receivables Securitization Facility (as defined below), to repay portions of the Company's outstanding 2019 senior notes and 2036 senior notes. The Company issued a make-whole call to repay the remaining portion of its outstanding 2019 senior notes, and the redemption was completed in the third quarter of 2017. The Company recognized \$71 million of loss on extinguishment of debt in the third quarter of 2017 associated with these actions.

The Company issued \$400 million of 2026 senior notes on August 8, 2016. Interest on the notes is payable semiannually in arrears on February 15 and August 15 each year, beginning on February 15, 2017. A portion of the proceeds from these notes was used to redeem \$158 million of our 2016 senior notes. The remaining proceeds were used to pay down portions of our Receivables Securitization Facility and for general corporate purposes.

The Company issued \$400 million of 2024 senior notes on November 12, 2014. Interest on the notes is payable semiannually in arrears on June 1 and December 1 each year, beginning on June 1, 2015. A portion of the proceeds from these notes was used to repay \$242 million of our 2016 senior notes and \$105 million of our 2019 senior notes. The remaining proceeds were used to pay down our Senior Revolving Credit Facility (as defined below), finance general working capital needs, and for general corporate purposes.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

12. DEBT (continued)

The Company issued \$600 million of 2022 senior notes on October 17, 2012. Interest on the notes is payable semiannually in arrears on June 15 and December 15 each year, beginning on June 15, 2013. The proceeds of these notes were used to refinance \$250 million of our 2016 senior notes and \$100 million of our 2019 senior notes and pay down our Senior Revolving Credit Facility.

The Company issued \$350 million of 2019 senior notes on June 3, 2009. On October 31, 2006, the Company issued \$650 million of 2016 senior notes and \$540 million of 2036 senior notes. The proceeds of these notes were used to pay certain unsecured and administrative claims, finance general working capital needs and for general corporate purposes.

Collectively, the notes above are referred to as the "Senior Notes." The Senior Notes are general unsecured obligations of the Company and rank *pari passu* with all existing and future senior unsecured indebtedness of the Company.

The Senior Notes are fully and unconditionally guaranteed by each of the Company's current and future domestic subsidiaries that are a borrower or guarantor under the Company's Credit Agreement (as defined below). The guarantees are unsecured and rank equally in right of payment with all other existing and future senior unsecured indebtedness of the guarantors. The guarantees are effectively subordinated to existing and future secured debt of the guarantors to the extent of the assets securing that indebtedness.

The Company has the option to redeem all or part of the Senior Notes at any time at a "make-whole" redemption price. The Company is subject to certain covenants in connection with the issuance of the Senior Notes that it believes are usual and customary. The Company was in compliance with these covenants as of December 31, 2017.

In the first quarter of 2016, the Company terminated interest rate swaps designated to hedge a portion of the 4.20% senior notes due 2022. The residual fair value of the swaps are recognized in Long-term debt, net of current portion on the Consolidated Balance Sheets as an unamortized interest rate swap basis adjustment.

Senior Revolving Credit Facilities

The Company has an \$800 million multi-currency senior revolving credit facility that has been amended from time to time (the "Senior Revolving Credit Facility") with a maturity date in November 2020 and uncommitted incremental loans permitted under the facility of \$600 million. The Senior Revolving Credit Facility includes both borrowings and letters of credit. Borrowings under the Senior Revolving Credit Facility may be used for general corporate purposes and working capital. The Company has the discretion to borrow under multiple options, which provide for varying terms and interest rates including the United States prime rate or LIBOR plus a spread.

The Senior Revolving Credit Facility contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio, that the Company believes are usual and customary for a senior unsecured credit agreement. The Company was in compliance with these covenants as of December 31, 2017. Please refer to the Credit Facility Utilization paragraph below for liquidity information as of December 31, 2017.

Term Loan Commitments

The Company obtained two term loan commitments on October 27, 2017 for \$300 million and \$600 million, respectively, (collectively, the "Term Loan Commitments"), separate from the \$600 million of allowable incremental term loans under the Senior Revolving Credit Facility. The Company entered into the Term Loan Commitments, in part, to pay a portion of the purchase price of the Paroc acquisition. In the first quarter of 2018, the Company borrowed on the \$600 million term loan commitment, along with borrowings on the Receivables Securitization Facility and the proceeds of the 2048 senior notes, to fund the purchase of Paroc. The \$600 million term loan borrowing requires full repayment by February 2021. On February 12, 2018, the Company voluntarily reduced the entire \$300 million term loan commitment, thus eliminating the availability of credit under the facility.

The Company obtained a term loan commitment on June 8, 2017 for \$350 million (the "June Term Loan Commitment"), separate from the \$600 million of uncommitted incremental loans permitted under the Senior Revolving Credit Facility. The Company entered into the June Term Loan Commitment, in part, to potentially pay a portion of the purchase price of the Pittsburgh Corning acquisition. On July 24, 2017, the Company provided formal notification of its intent to voluntarily reduce the entire June Term Loan Commitment, thus eliminating the availability of credit under the facility effective on July 31, 2017.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

12. DEBT (continued)**Receivables Securitization Facility**

Included in long-term debt on the Consolidated Balance Sheets are borrowings outstanding under a Receivables Purchase Agreement (RPA) that are accounted for as secured borrowings in accordance with ASC 860, "Accounting for Transfers and Servicing." Owens Corning Sales, LLC and Owens Corning Receivables LLC, each a subsidiary of the Company, have a \$250 million RPA with certain financial institutions. The securitization facility (the "Receivables Securitization Facility") now matures in May 2020, following amendments in March 2017 and May 2017 to extend its maturity. No other significant terms impacting liquidity were amended. The Company has the ability to borrow at the lenders' cost of funds, which approximates A-1/P-1 commercial paper rates, plus a fixed spread.

The Receivables Securitization Facility contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio that the Company believes are usual and customary for a securitization facility. The Company was in compliance with these covenants as of December 31, 2017. Please refer to the Credit Facility Utilization section below for liquidity information as of December 31, 2017.

Owens Corning Receivables LLC's sole business consists of the purchase or acceptance through capital contributions of trade receivables and related rights from Owens Corning Sales, LLC and the subsequent retransfer of or granting of a security interest in such trade receivables and related rights to certain purchasers party to the RPA. Owens Corning Receivables LLC is a separate legal entity with its own separate creditors who will be entitled, upon its liquidation, to be satisfied out of Owens Corning Receivables LLC's assets prior to any assets or value in Owens Corning Receivables LLC becoming available to Owens Corning Receivables LLC's equity holders. The assets of Owens Corning Receivables LLC are not available to pay creditors of the Company or any other affiliates of the Company or Owens Corning Sales, LLC.

Credit Facility Utilization

The following table shows how the Company utilized its primary sources of liquidity (in millions):

	As of December 31, 2017		
	Term Loan Commitments (a)	Senior Revolving Credit Facility	Receivables Securitization Facility
Facility size	\$ 900	\$ 800	\$ 250
Collateral capacity limitation on availability	n/a	n/a	26
Outstanding borrowings	—	—	—
Outstanding letters of credit	n/a	9	3
Availability on facility	\$ 900	\$ 791	\$ 221

(a) Please refer to the Term Loan Commitments section on pg. 79 for information on subsequent activity in February 2018 related to the Term Loan Commitments.

Debt Maturities

The aggregate maturities for all long-term debt issues for each of the five years following December 31, 2017 and thereafter are presented in the table below (in millions). The maturities stated below are the aggregate par amounts of the outstanding senior notes and capital lease payments:

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

12. DEBT (continued)

Period	Maturities	
2018	\$	7
2019		7
2020		7
2021		6
2022		605
2023 and beyond		1,819
Total	\$	2,451

Short-Term Debt

At December 31, 2017 and December 31, 2016, short-term borrowings were \$1 million and less than \$1 million, respectively. The short-term borrowings for both periods consisted of various operating lines of credit and working capital facilities. Certain of these borrowings are collateralized by receivables, inventories or property. The borrowing facilities are typically for one-year renewable terms. The weighted average interest rate on all short-term borrowings was approximately 6.7% and 5.4% for December 31, 2017 and December 31, 2016, respectively.

13. PENSION PLANS

The Company sponsors defined benefit pension plans. Under the plans, pension benefits are based on an employee's years of service and, for certain categories of employees, qualifying compensation. Company contributions to these pension plans are determined by an independent actuary to meet or exceed minimum funding requirements. In our U.S. plan, the unrecognized cost of any retroactive amendments and actuarial gains and losses are amortized over the average remaining life expectancy of inactive participants. In all of our Non-U.S. plans, the unrecognized cost of any retroactive amendments and actuarial gains and losses are amortized over the average future service period of plan participants expected to receive benefits.

During the second and fourth quarters of 2017, the Company completed balance sheet risk mitigation actions related to certain U.S. and non-U.S. pension plans. These actions included the purchase of non-participating annuity contracts from insurance companies and the payment of lump sums to retirees, which resulted in the settlement of liabilities to affected participants. As a result of these transactions, the Company recognized pension settlement losses of \$64 million during the twelve months ended December 31, 2017. These losses are included in Other expenses, net on the Consolidated Statements of Earnings in our Corporate, Other and Eliminations category. These transactions did not have a material effect on the plans' funded status.

The following tables provide a reconciliation of the change in the projected benefit obligation, the change in plan assets and the net amount recognized in the Consolidated Balance Sheets (in millions):

	December 31, 2017			December 31, 2016		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Change in Projected Benefit Obligation						
Benefit obligation at beginning of period	\$ 1,066	\$ 512	\$ 1,578	\$ 1,092	\$ 485	\$ 1,577
Service cost	7	5	12	7	3	10
Interest cost	40	15	55	44	18	62
Actuarial loss (gain)	30	(16)	14	5	75	80
Currency loss (gain)	—	42	42	—	(46)	(46)
Benefits paid	(53)	(18)	(71)	(82)	(21)	(103)
Settlements/curtailments	(97)	(116)	(213)	—	(7)	(7)
Acquisition	—	21	21	—	—	—
Other	—	12	12	—	5	5
Benefit obligation at end of period	<u>\$ 993</u>	<u>\$ 457</u>	<u>\$ 1,450</u>	<u>\$ 1,066</u>	<u>\$ 512</u>	<u>\$ 1,578</u>

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

13. PENSION PLANS (continued)

	December 31, 2017			December 31, 2016		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Change in Plan Assets						
Fair value of assets at beginning of period	\$ 822	\$ 393	\$ 1,215	\$ 806	\$ 379	\$ 1,185
Actual return on plan assets	114	26	140	47	53	100
Currency gain (loss)	—	31	31	—	(29)	(29)
Company contributions	50	22	72	50	13	63
Benefits paid	(53)	(18)	(71)	(82)	(21)	(103)
Settlements/curtailments	(97)	(116)	(213)	—	(4)	(4)
Acquisition	—	14	14	—	—	—
Other	—	12	12	1	2	3
Fair value of assets at end of period	\$ 836	\$ 364	\$ 1,200	\$ 822	\$ 393	\$ 1,215
Funded status	\$ (157)	\$ (93)	\$ (250)	\$ (244)	\$ (119)	\$ (363)

	December 31, 2017			December 31, 2016		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Amounts Recognized in the Consolidated Balance Sheets						
Prepaid pension cost	\$ —	\$ 7	\$ 7	\$ —	\$ 5	\$ 5
Accrued pension cost – current	—	(1)	(1)	—	(1)	(1)
Accrued pension cost – non-current	(157)	(99)	(256)	(244)	(123)	(367)
Net amount recognized	\$ (157)	\$ (93)	\$ (250)	\$ (244)	\$ (119)	\$ (363)

Amounts Recorded in AOCI						
Net actuarial loss	\$ (357)	\$ (86)	\$ (443)	\$ (433)	\$ (129)	\$ (562)

OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

13. PENSION PLANS (continued)

The following table presents information about the projected benefit obligation, accumulated benefit obligation (ABO) and plan assets of the Company's pension plans (in millions):

	December 31, 2017			December 31, 2016		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
<u>Plans with ABO in excess of fair value of plan assets:</u>						
Projected benefit obligation	\$ 993	\$ 288	\$ 1,281	\$ 1,066	\$ 310	\$ 1,376
Accumulated benefit obligation	\$ 993	\$ 284	\$ 1,277	\$ 1,066	\$ 305	\$ 1,371
Fair value of plan assets	\$ 836	\$ 193	\$ 1,029	\$ 822	\$ 192	\$ 1,014
<u>Plans with fair value of assets in excess of ABO:</u>						
Projected benefit obligation	\$ —	\$ 169	\$ 169	\$ —	\$ 202	\$ 202
Accumulated benefit obligation	\$ —	\$ 145	\$ 145	\$ —	\$ 187	\$ 187
Fair value of plan assets	\$ —	\$ 171	\$ 171	\$ —	\$ 201	\$ 201
<u>Summary of all plans:</u>						
Total projected benefit obligation	\$ 993	\$ 457	\$ 1,450	\$ 1,066	\$ 512	\$ 1,578
Total accumulated benefit obligation	\$ 993	\$ 429	\$ 1,422	\$ 1,066	\$ 492	\$ 1,558
Total fair value of plan assets	\$ 836	\$ 364	\$ 1,200	\$ 822	\$ 393	\$ 1,215

Weighted-Average Assumptions Used to Determine Benefit Obligation

The following table presents weighted average assumptions used to determine benefit obligations at the measurement dates:

	December 31,	
	2017	2016
United States Plans		
Discount rate	3.55%	3.95%
Expected return on plan assets	6.75%	6.75%
Non-United States Plans		
Discount rate	2.88%	3.14%
Expected return on plan assets	5.22%	5.92%
Rate of compensation increase	4.29%	4.25%

Components of Net Periodic Pension Cost

The following table presents the components of net periodic pension cost (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Service cost	\$ 12	\$ 10	\$ 12
Interest cost	55	62	63
Expected return on plan assets	(79)	(81)	(84)
Amortization of actuarial loss	18	16	18
Settlement/curtailment	64	(6)	(3)
Other	—	2	1
Net periodic benefit cost	<u>\$ 70</u>	<u>\$ 3</u>	<u>\$ 7</u>

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

13. PENSION PLANS (continued)

Weighted-Average Assumptions Used to Determine Net Periodic Pension Cost

The following table presents weighted-average assumptions used to determine net periodic pension costs for the periods noted:

	Twelve Months Ended December 31,		
	2017	2016	2015
United States Plans			
Discount rate	3.95%	4.20%	3.85%
Expected return on plan assets	6.75%	7.00%	7.00%
Rate of compensation increase	N/A (a)	N/A (a)	N/A (a)
Non-United States Plans			
Discount rate	3.14%	3.88%	3.60%
Expected return on plan assets	5.92%	6.23%	6.27%
Rate of compensation increase	4.25%	3.97%	4.01%

(a) Not applicable due to changes in plan made on August 1, 2009 that were effective beginning January 1, 2010.

The expected return on plan assets assumption is derived by taking into consideration the target plan asset allocation, historical rates of return on those assets, projected future asset class returns and net outperformance of the market by active investment managers. An asset return model is used to develop an expected range of returns on plan investments over a 20 year period, with the expected rate of return selected from a best estimate range within the total range of projected results. The result is then rounded down to the nearest 25 basis points.

Accumulated Other Comprehensive Earnings (Deficit)

Of the \$(443) million balance in AOCI, \$15 million is expected to be recognized as net periodic pension cost during 2018 .

Items Measured at Fair Value

The Company classifies and discloses pension plan assets in one of the following three categories:

Level 1: Quoted market prices in active markets for identical assets.

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data.

Level 3: Unobservable inputs that are not corroborated by market data.

Plan Assets

The tables in this section show pension plan asset fair values and fair value leveling information. The assets are categorized into one of the three levels of the fair value hierarchy or are not subject to leveling, in the case of investments that are valued using the net asset value per share (or its equivalent) practical expedient ("NAV").

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

13. PENSION PLANS (continued)

The following table summarizes the fair values and applicable fair value hierarchy levels of United States pension plan assets (in millions):

Asset Category	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Equities				
Domestic	\$ 67	\$ —	\$ —	\$ 67
International	78	—	—	78
Fixed income and cash equivalents				
Corporate bonds	—	231	—	231
Government debt	—	88	—	88
Real estate investment trusts	26	—	—	26
Total United States plan assets subject to leveling	\$ 171	\$ 319	\$ —	490
Plan assets measured at NAV				
Equities				173
Real assets				51
Fixed income and cash equivalents				69
Absolute return strategies				53
Total United States plan assets				\$ 836

Asset Category	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Equities				
Domestic	\$ 69	\$ —	\$ —	\$ 69
International	81	—	—	81
Fixed income and cash equivalents				
Corporate bonds	200	25	—	225
Government debt	86	—	—	86
Real estate investment trusts	24	—	—	24
Total United States plan assets subject to leveling	\$ 460	\$ 25	\$ —	485
Plan assets measured at NAV				
Equities				180
Real assets				51
Fixed income and cash equivalents				54
Absolute return strategies				52
Total United States plan assets				\$ 822

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

13. PENSION PLANS (continued)

The following table summarizes the fair values and applicable fair value hierarchy levels of non-United States pension plan assets (in millions):

Asset Category	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Equities				
Domestic	\$ —	\$ 1	\$ —	\$ 1
International	—	2	—	2
Fixed income and cash equivalents				
Cash and cash equivalents	—	64	—	64
Corporate bonds	—	12	—	12
Total non-United States plan assets subject to leveling	\$ —	\$ 79	\$ —	79
Plan assets measured at NAV				
Equities				52
Fixed income and cash equivalents				123
Absolute return strategies				110
Total non-United States plan assets				\$ 364

Asset Category	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Equities				
Domestic	\$ —	\$ 1	\$ —	\$ 1
International	—	2	—	2
Fixed income and cash equivalents				
Cash and cash equivalents	—	36	—	36
Corporate bonds	—	5	—	5
Total non-United States plan assets subject to leveling	\$ —	\$ 44	\$ —	44
Plan assets measured at NAV				
Equities				90
Fixed income and cash equivalents				164
Absolute return strategies				95
Total non-United States plan assets				\$ 393

Investment Strategy

The current targeted asset allocation for the United States pension plans is to have 38% of assets invested in equities, 3% in real estate, 6% in real assets, 47% in intermediate and long-term fixed income securities and 6% in absolute return strategies. Assets are rebalanced quarterly to conform to policy tolerances. The Company actively evaluates the reasonableness of its asset mix given changes in the projected benefit obligation and market dynamics. Our investment policy and asset mix for the non-United States pension plans varies by location and is based on projected benefit obligation and market dynamics.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

13. PENSION PLANS (continued)**Estimated Future Benefit Payments**

The following table shows estimated future benefit payments from the Company's pension plans (in millions):

<u>Year</u>		<u>Estimated Benefit Payments</u>
2018	\$	85
2019	\$	87
2020	\$	85
2021	\$	83
2022	\$	86
2023-2027	\$	420

Contributions

Owens Corning expects to contribute \$50 million in cash to the United States pension plans during 2018 and another \$12 million to non-United States plans. Actual contributions to the plans may change as a result of a variety of factors, including changes in laws that impact funding requirements.

Defined Contribution Plans

The Company sponsors two defined contribution plans which are available to substantially all United States employees. The Company matches a percentage of employee contributions up to a maximum level and contributes up to 2% of an employee's wages regardless of employee contributions. The Company recognized expense of \$42 million, \$38 million and \$33 million during the years ended December 31, 2017, 2016 and 2015, respectively, related to these plans.

14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

The Company maintains health care and life insurance benefit plans for certain retired employees and their dependents. The health care plans in the United States are non-funded and pay either (1) stated percentages of covered medically necessary expenses, after subtracting payments by Medicare or other providers and after stated deductibles have been met, or (2) fixed amounts of medical expense reimbursement.

Salaried employees hired on or before December 31, 2005 become eligible to participate in the United States health care plans upon retirement if they have accumulated 10 years of service after age 45, 48 or 50, depending on the category of employee. For employees hired after December 31, 2005, the Company does not provide subsidized retiree health care. Some of the plans are contributory, with some retiree contributions adjusted annually. The Company has reserved the right to change or eliminate these benefit plans subject to the terms of collective bargaining agreements.

The Company implemented an Employee Group Waiver Plan (EGWP) effective January 1, 2013 to manage its prescription drug benefits for certain retiree groups. The Company also negotiated with certain unionized employees to increase the eligibility age for retiree medical benefits and to eliminate the post-65 retiree reimbursement account benefit for employees retiring on or after January 1, 2014.

During 2017, the Company reclassified an immaterial employee-related liability as a postemployment benefit other than pension. This change had a de minimis effect on the non-U.S. projected benefit obligation in the tables below. Due to the insignificant balance of the overall non-U.S. liabilities, the effect of this reclassification shows a year-over-increase increase to the non U.S. weighted-average rates in the tables below, including discount rates and health care cost trend rates.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (continued)

The following table provides a reconciliation of the change in the projected benefit obligation and the net amount recognized in the Consolidated Balance Sheets for the years ended December 31, 2017 and 2016 (in millions):

	December 31, 2017			December 31, 2016		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Change in Projected Benefit Obligation						
Benefit obligation at beginning of period	\$ 212	\$ 13	\$ 225	\$ 230	\$ 13	\$ 243
Service cost	2	—	2	2	—	2
Interest cost	8	1	9	9	—	9
Actuarial gain	(13)	(2)	(15)	(15)	—	(15)
Currency loss	—	1	1	—	—	—
Plan amendments	(3)	—	(3)	—	—	—
Benefits paid	(12)	(1)	(13)	(14)	(1)	(15)
Acquisition	22	—	22	—	—	—
Other	—	2	2	—	1	1
Benefit obligation at end of period	\$ 216	\$ 14	\$ 230	\$ 212	\$ 13	\$ 225
Funded status	\$ (216)	\$ (14)	\$ (230)	\$ (212)	\$ (13)	\$ (225)

Amounts Recognized in the Consolidated Balance Sheets

Accrued benefit obligation – current	\$ (18)	\$ (1)	\$ (19)	\$ (17)	\$ (1)	\$ (18)
Accrued benefit obligation – non-current	(198)	(13)	(211)	(195)	(12)	(207)
Net amount recognized	\$ (216)	\$ (14)	\$ (230)	\$ (212)	\$ (13)	\$ (225)

Amounts Recorded in AOCI

Net actuarial loss (gain)	\$ (29)	\$ (6)	\$ (35)	\$ (19)	\$ (4)	\$ (23)
Net prior service cost (credit)	(12)	1	(11)	(12)	—	(12)
Net amount recognized	\$ (41)	\$ (5)	\$ (46)	\$ (31)	\$ (4)	\$ (35)

Weighted-Average Assumptions Used to Determine Benefit Obligations

The following table presents the discount rates used to determine the benefit obligations:

	December 31,	
	2017	2016
United States plans	3.45%	3.80%
Non-United States plans	4.56%	3.55%

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (continued)

Components of Net Periodic Postretirement Benefit Cost

The following table presents the components of net periodic postretirement benefit cost (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Service cost	\$ 2	\$ 2	\$ 2
Interest cost	9	9	9
Amortization of prior service cost	(4)	(4)	(4)
Amortization of actuarial gain	(3)	(1)	(1)
Other	—	1	1
Net periodic postretirement benefit cost	<u>\$ 4</u>	<u>\$ 7</u>	<u>\$ 7</u>

Weighted-Average Assumptions Used to Determine Net Periodic Postretirement Benefit Cost

The following table presents the discount rates used to determine net periodic postretirement benefit cost:

	Twelve Months Ended December 31,		
	2017	2016	2015
United States plans	3.80%	4.00%	3.70%
Non-United States plans	6.78%	3.80%	3.70%

The following table presents health care cost trend rates used to determine net periodic postretirement benefit cost, as well as information regarding the ultimate rate and the year in which the ultimate rate is reached:

	Twelve Months Ended December 31,		
	2017	2016	2015
United States plans			
Initial rate at end of year	6.56%	6.78%	7.00%
Ultimate rate	5.00%	5.00%	5.00%
Year in which ultimate rate is reached	2025	2025	2025
Non-United States plans			
Initial rate at end of year	5.73%	5.07%	5.25%
Ultimate rate	5.49%	4.70%	4.70%
Year in which ultimate rate is reached	2019	2019	2019

The health care cost trend rate assumption can have a significant effect on the amounts reported. To illustrate, a one-percentage point change in the December 31, 2017 assumed health care cost trend rate would have the following effects (in millions):

	1-Percentage Point	
	Increase	Decrease
Increase (decrease) in total service cost and interest cost components of net periodic postretirement benefit cost	\$ —	\$ —
Increase (decrease) of accumulated postretirement benefit obligation	\$ 7	\$ (6)

Accumulated Other Comprehensive Earnings (Deficit)

Approximately \$11 million of the \$46 million balance in AOCI is expected to be recognized as net periodic postretirement benefit during 2018.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

14. POSTEMPLOYMENT AND POSTRETIREMENT BENEFITS OTHER THAN PENSIONS (continued)

Estimated Future Benefit Payments

The following table shows estimated future benefit payments from the Company's postretirement benefit plans (in millions):

<u>Year</u>	<u>Estimated Benefit Payments</u>
2018	\$ 19
2019	\$ 19
2020	\$ 19
2021	\$ 18
2022	\$ 18
2023-2027	\$ 78

Postemployment Benefits

The Company may also provide benefits to former or inactive employees after employment but before retirement under certain conditions. These benefits include continuation of benefits such as health care and life insurance coverage. The accrued postemployment benefits liability at December 31, 2017 and 2016 was \$13 million and \$14 million, respectively. The net periodic postemployment benefit expense was \$3 million for the year ended December 31, 2017, \$2 million in 2016, and \$1 million in 2015.

15. CONTINGENT LIABILITIES AND OTHER MATTERS

The Company may be involved in various legal and regulatory proceedings relating to employment, antitrust, tax, product liability, environmental and other matters (collectively, "Proceedings"). The Company regularly reviews the status of such Proceedings along with legal counsel. Liabilities for such Proceedings are recorded when it is probable that the liability has been incurred and when the amount of the liability can be reasonably estimated. Liabilities are adjusted when additional information becomes available. Management believes that the amount of any reasonably possible losses in excess of any amounts accrued, if any, with respect to such Proceedings or any other known claim, including the matters described below under the caption Environmental Matters (the "Environmental Matters"), are not material to the Company's financial statements. Management believes that the ultimate disposition of the Proceedings and the Environmental Matters will not have a material adverse effect on the Company's financial condition. While the likelihood is remote, the disposition of the Proceedings and Environmental Matters could have a material impact on the results of operations, cash flows or liquidity in any given reporting period.

Litigation and Regulatory Proceedings

The Company is involved in litigation and regulatory Proceedings from time to time in the regular course of its business. The Company believes that adequate provisions for resolution of all contingencies, claims and pending matters have been made for probable losses that are reasonably estimable.

Litigation Settlement Gain

In May 2017, the Company and TopBuild Corp. entered into a settlement agreement in connection with a commercial breach of contract dispute from the second quarter of 2016. Under the terms of the settlement, TopBuild Corp. paid Owens Corning \$30 million in cash in the second quarter of 2017. The settlement also resulted in the dismissal of the lawsuit filed in May 2016 in connection with the dispute. During the second quarter of 2017, a \$29 million litigation settlement gain, net of legal fees, was recorded in Other expenses, net on the Consolidated Statements of Earnings in the Corporate, Other and Eliminations category.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

15. CONTINGENT LIABILITIES AND OTHER MATTERS (continued)**Environmental Matters**

The Company has established policies and procedures designed to ensure that its operations are conducted in compliance with all relevant laws and regulations and that enable the Company to meet its high standards for corporate sustainability and environmental stewardship. Our manufacturing facilities are subject to numerous foreign, federal, state and local laws and regulations relating to the presence of hazardous materials, pollution and protection of the environment, including emissions to air, discharges to water, management of hazardous materials, handling and disposal of solid wastes, and remediation of contaminated sites. All Company manufacturing facilities operate using an ISO 14001 or equivalent environmental management system. The Company's 2020 Sustainability Goals require significant global reductions in energy use, water consumption, waste to landfill, and emissions of greenhouse gases, fine particulate matter and toxic air emissions.

Owens Corning is involved in remedial response activities and is responsible for environmental remediation at a number of sites, including certain of its currently owned or formerly owned plants. These responsibilities arise under a number of laws, including, but not limited to, the Federal Resource Conservation and Recovery Act, and similar state or local laws pertaining to the management and remediation of hazardous materials and petroleum. The Company has also been named a potentially responsible party under the U.S. Federal Superfund law, or state equivalents, at a number of disposal sites. The Company became involved in these sites as a result of government action or in connection with business acquisitions. As of December 31, 2017, the Company was involved with a total of 20 sites worldwide, including 7 Superfund sites and 13 owned or formerly owned sites. None of the liabilities for these sites are individually significant to the Company.

Remediation activities generally involve a potential range of activities and costs related to soil and groundwater contamination. This can include pre-cleanup activities such as fact finding and investigation, risk assessment, feasibility studies, remedial action design and implementation (where actions may range from monitoring to removal of contaminants, to installation of longer-term remediation systems). A number of factors affect the cost of environmental remediation, including the number of parties involved in a particular site, the determination of the extent of contamination, the length of time the remediation may require, the complexity of environmental regulations, variability in clean-up standards, the need for legal action, and changes in remediation technology. Taking these factors into account, Owens Corning has predicted the costs of remediation reasonably estimated to be paid over a period of years. The Company accrues an amount on an undiscounted basis, consistent with the reasonable estimates of these costs when it is probable that a liability has been incurred. Actual cost may differ from these estimates for the reasons mentioned above.

During the fourth quarter of 2017, the Company recorded a \$15 million environmental liability charge to Other expenses, net on the Consolidated Statements of Earnings in the Corporate, Other and Eliminations reporting category, primarily as a result of changes in estimable remediation costs at a single closed U.S. site owned by the Company. Factors contributing to this change in estimate included the complexity of environmental regulations at the site and the completion of a remedial action work plan. The Company expects this recorded amount to be paid over the next ten years, with the majority of the costs expected to be paid over the next three years. At December 31, 2017, the Company had an accrual totaling \$17 million for its environmental liabilities, of which the current portion is \$11 million. Changes in required remediation procedures or timing of those procedures, or discovery of contamination at additional sites, could result in material increases to the Company's environmental obligations.

16. STOCK COMPENSATION**2016 Stock Plan**

On April 21, 2016, the Company's stockholders approved the Owens Corning 2016 Stock Plan (the "2016 Stock Plan") which replaced the 2013 Stock Plan. The 2016 Stock Plan authorizes grants of stock options, stock appreciation rights, restricted stock awards, restricted stock units, bonus stock awards and performance stock awards. At December 31, 2017, the number of shares remaining available under the 2016 Stock Plan for all stock awards was 3.3 million.

Stock Options

The Company has granted stock options under its stockholder approved stock plans. The Company calculates a weighted-average grant-date fair value using a Black-Scholes valuation model for options granted. Compensation expense for options is measured based on the fair market value of the option on the date of grant, and is recognized on a straight-line basis over a four year vesting

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

16. STOCK COMPENSATION (continued)

period. In general, the exercise price of each option awarded was equal to the closing market price of the Company's common stock on the date of grant and an option's maximum term is 10 years. The volatility assumption was based on a benchmark study of our peers prior to 2014. Starting with the options granted in 2014, the volatility was based on the Company's historic volatility.

During 2017, 2016 and 2015, no stock options were granted.

During the years ended December 31, 2017, 2016 and 2015, the Company recognized expense of \$1 million, \$2 million and \$4 million, respectively, related to the Company's stock options. As of December 31, 2017, there was less than \$1 million of total unrecognized compensation cost related to stock options. That cost is expected to be recognized over a weighted-average period of 0.17 years. The total aggregate intrinsic value of options outstanding as of December 31, 2017, 2016 and 2015 was \$28 million, \$16 million and \$31 million, respectively. The total aggregate intrinsic value of options exercisable as of December 31, 2017, 2016 and 2015 was \$25 million, \$13 million and \$28 million, respectively. Cash received from option exercises was \$15 million, \$26 million and \$21 million for the years ended December 31, 2017, 2016 and 2015, respectively. Tax benefits realized from tax deductions associated with option exercises totaled \$7 million, \$9 million and \$4 million for the years ended December 31, 2017, 2016 and 2015, respectively.

The following table summarizes the Company's stock option activity:

	Twelve Months Ended December 31,					
	2017		2016		2015	
	Number of Options	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price
Beginning Balance	975,400	\$ 35.14	1,953,320	\$ 31.09	2,754,895	\$ 31.04
Granted	—	—	—	—	—	—
Exercised	(453,425)	32.79	(960,570)	26.90	(691,375)	29.75
Forfeited	(3,250)	37.65	(11,350)	38.50	(105,100)	38.09
Expired	—	—	(6,000)	30.00	(5,100)	41.89
Ending Balance	518,725	\$ 37.17	975,400	\$ 35.14	1,953,320	\$ 31.09

The following table summarizes information about the Company's options outstanding and exercisable:

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Options Outstanding	Weighted-Average		Number Exercisable at Dec. 31, 2017	Weighted-Average	
		Remaining Contractual Life	Exercise Price		Remaining Contractual Life	Exercise Price
\$13.89 - \$42.16	518,725	4.93	\$ 37.17	452,150	4.76	\$ 37.10

Restricted Stock Awards and Restricted Stock Units

The Company has granted restricted stock awards and restricted stock units (collectively referred to as "restricted stock") under its stockholder approved stock plans. Compensation expense for restricted stock is measured based on the closing market price of the stock at date of grant and is recognized on a straight-line basis over the vesting period, which is typically three or four years. The Stock Plan allows alternate vesting schedules for death, disability, and retirement over various periods ending in 2020.

During the years ended December 31, 2017, 2016 and 2015, the Company recognized expense of \$21 million, \$19 million and \$17 million, respectively, related to the Company's restricted stock. As of December 31, 2017, there was \$33 million of total unrecognized compensation cost related to restricted stock. That cost is expected to be recognized over a weighted-average period of 2.50 years. The total grant date fair value of shares vested during the years ended December 31, 2017, 2016 and 2015, was \$19 million, \$15 million and \$17 million, respectively.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

16. STOCK COMPENSATION (continued)

The following table shows a summary of the Company's Restricted Stock plans:

	Twelve Months Ended December 31,					
	2017		2016		2015	
	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value
Beginning Balance	1,800,557	\$ 37.78	1,707,490	\$ 35.37	1,727,741	\$ 33.58
Granted	496,021	56.60	544,627	45.61	625,652	39.75
Vested	(477,857)	38.94	(398,751)	37.55	(504,704)	34.24
Forfeited	(66,585)	44.90	(52,809)	39.80	(141,199)	38.20
Ending Balance	1,752,136	\$ 42.40	1,800,557	\$ 37.78	1,707,490	\$ 35.37

Performance Stock Awards and Performance Stock Units

The Company has granted performance stock awards and performance stock units (collectively referred to as "PSUs") as a part of its long-term incentive plan. All outstanding performance grants will fully settle in stock. The amount of stock ultimately distributed from the 2017, 2016 and 2015 grants is contingent on meeting internal company-based metrics or an external-based stock performance metric.

In 2017, 2016 and 2015, the Company granted both internal company-based and external-based metric PSUs.

Internal Company-based metrics

The internal company-based metrics vest after a three -year period and are based on various company-based metrics over a three -year period. The amount of stock distributed will vary from 0% to 300% of PSUs awarded depending on performance versus the company-based metrics.

The initial fair value for all internal company-based metric PSUs assumes that the performance goals will be achieved and is based on the grant date stock price. This assumption is monitored quarterly and if it becomes probable that such goals will not be achieved or will be exceeded, compensation expense recognized will be adjusted and previous surplus compensation expense recognized will be reversed or additional expense will be recognized. The expected term represents the period from the grant date to the end of the three-year performance period. Pro-rata vesting may be utilized in the case of death, disability or retirement, and awards if earned will be paid at the end of the three-year period.

External based metrics

The external-based metric vests after a three -year period. Outstanding grants issued in or after 2015 will be based on the Company's total stockholder return relative to the performance of the S&P Building & Construction Industry Index. The amount of stock distributed will vary from 0% to 200% of PSUs awarded depending on the relative stockholder return performance.

2017 Grant

For the 2017 grant, the fair value of the external based metric PSUs was estimated at the grant date using a Monte Carlo simulation that used various assumptions that include expected volatility of 26.06% , a risk free interest rate of 1.44% and an expected term of 2.92 years. Expected volatility was based on Owens Corning's most recent 2.92 years volatility. The risk-free interest rate was based on zero coupon United States Treasury bills at the grant date. The expected term represents the period from the grant date to the end of the three -year performance period.

For the 2017 grant, the fair value of the internal based metric PSUs was estimated using the grant date stock price and assumed that the performance goals will be achieved. This assumption is monitored each quarter and if it becomes probable that such goals will not be achieved or will be exceeded, compensation expense recognized will be adjusted. This adjustment results in either reversing previous surplus compensation expense recognized or recognizing additional expense.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

16. STOCK COMPENSATION (continued)

2016 Grant

For the 2016 grant, the fair value of the external based metric PSUs was estimated at the grant date using a Monte Carlo simulation that used various assumptions that include expected volatility of 26.55% , a risk free interest rate of 0.84% and an expected term of 2.91 years. Expected volatility was based on Owens Corning's most recent 2.91 years volatility. The risk-free interest rate was based on zero coupon United States Treasury bills at the grant date. The expected term represents the period from the grant date to the end of the three -year performance period.

For the 2016 grant, the fair value of the internal based metric PSUs was estimated using the grant date stock price and assumed that the performance goals will be achieved. This assumption is monitored each quarter and if it becomes probable that such goals will not be achieved or will be exceeded, compensation expense recognized will be adjusted. This adjustment results in either reversing previous surplus compensation expense recognized or recognizing additional expense.

2015 Grant

For the 2015 grant, the fair value of the external based metric PSUs was estimated at the grant date using a Monte Carlo simulation that used various assumptions that include expected volatility of 29.2% , a risk free interest rate of 1.08% and an expected term of 2.90 years. Expected volatility was based on Owens Corning's most recent 2.90 years volatility. The risk-free interest rate was based on zero coupon United States Treasury bills at the grant date. The expected term represents the period from the grant date to the end of the three -year performance period.

For the 2015 grant, the fair value of the internal based metric PSUs was estimated using the grant date stock price and assumed that the performance goals would be achieved. The performance period for this grant ended in 2017, and performance was consistent with estimated compensation expense that was recognized over the life of the grant.

PSU Summary

For all PSUs, respectively, during the years ended December 31, 2017 , 2016 and 2015 , the Company recognized expense of \$19 million , \$16 million and \$8 million . As of December 31, 2017 , there was \$14 million total unrecognized compensation cost related to PSUs. That cost is expected to be recognized over a weighted-average period of 1.65 years. The total grant date fair value of shares vested during the years ended December 31, 2017 , 2016 and 2015 , was \$9 million , \$3 million and \$1 million , respectively.

The following table shows a summary of the Company's PSU plans:

	Twelve Months Ended December 31,					
	2017		2016		2015	
	Number of PSUs	Weighted-Average Grant Date Fair Value	Number of PSUs	Weighted-Average Grant Date Fair Value	Number of PSUs	Weighted-Average Grant Date Fair Value
Beginning Balance	472,300	\$ 47.19	431,400	\$ 44.52	416,250	\$ 49.53
Granted	221,050	59.71	244,250	48.74	252,200	43.88
Vested	(219,050)	43.83	(186,750)	44.43	(151,700)	56.71
Forfeited/canceled	(23,152)	49.50	(16,600)	44.48	(85,350)	48.66
Ending Balance	451,148	\$ 53.96	472,300	\$ 47.19	431,400	\$ 44.52

Employee Stock Purchase Plan

The Owens Corning Employee Stock Purchase Plan (ESPP) is a tax qualified plan under Section 423 of the Internal Revenue Code. The purchase price of shares purchased under the ESPP is equal to 85% of the lower of the fair market value of shares of Owens Corning common stock at the beginning or ending of the offering period, which is a six month period ending on May 31 and November 30 of each year. There were 2 million shares available for purchase under the ESPP as of its approval date. The Company recognized expense related to the ESPP of \$3 million , \$3 million and \$2 million for the years ended December 31, 2017 , 2016 and 2015, respectively. As of December 31, 2017 , the Company had \$2 million of total unrecognized compensation costs related to the ESPP. For the years ended December 31, 2017 , 2016 and 2015, our employees purchased 0.3 million shares at an average price of \$48.48 , 0.2 million shares at an average price of \$41.99 , and 0.2 million shares at an average price of \$32.57 ,

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

16. STOCK COMPENSATION (continued)

respectively. Under the outstanding ESPP as of February 15, 2018 8 employees have contributed \$3 million to purchase shares for the current purchase period ending May 31, 2018.

17. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE DEFICIT

The following table summarizes the changes in accumulated other comprehensive income (deficit) (in millions):

	Twelve Months Ended December 31,	
	2017	2016
Currency Translation Adjustment		
Beginning balance	\$ (284)	\$ (247)
Net investment hedge amounts classified into AOCI, net of tax	(24)	2
Gain (loss) on foreign currency translation	125	(39)
Other comprehensive income/(loss), net of tax	101	(37)
Ending balance	\$ (183)	\$ (284)
Pension and Other Postretirement Adjustment		
Beginning balance	\$ (429)	\$ (419)
Amounts reclassified from AOCI to net earnings, net of tax (a)	53	4
Amounts classified into AOCI, net of tax	45	(14)
Other comprehensive income/(loss), net of tax	98	(10)
Ending balance	\$ (331)	\$ (429)
Hedging Adjustment		
Beginning balance	\$ 3	\$ (4)
Amounts reclassified from AOCI to net earnings, net of tax (b)	(1)	5
Amounts classified into AOCI, net of tax	(2)	2
Other comprehensive (loss)/income, net of tax	(3)	7
Ending balance	\$ —	\$ 3
Total AOCI ending balance	\$ (514)	\$ (710)

(a) These AOCI components are included in the computation of total Pension and OPEB expense and are recorded in Cost of sales, marketing and administrative expenses and Other expenses, net. See Notes 13 and 14 for additional information.

(b) Amounts reclassified from (loss)/gain on cash flow hedges are reclassified from AOCI to income when the hedged item affects earnings and is recognized in Cost of sales. See Note 4 for additional information.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

18. EARNINGS PER SHARE

The following table is a reconciliation of weighted-average shares for calculating basic and diluted earnings per-share (in millions, except per share amounts):

	Twelve Months Ended December 31,		
	2017	2016	2015
Net earnings attributable to Owens Corning	\$ 289	\$ 393	\$ 330
Weighted-average number of shares outstanding used for basic earnings per share	111.5	114.4	117.2
Non-vested restricted and performance shares	1.5	0.8	0.6
Options to purchase common stock	0.2	0.2	0.4
Weighted-average number of shares outstanding and common equivalent shares used for diluted earnings per share	113.2	115.4	118.2
Earnings per common share attributable to Owens Corning common stockholders:			
Basic	\$ 2.59	\$ 3.44	\$ 2.82
Diluted	\$ 2.55	\$ 3.41	\$ 2.79

Basic earnings per share is calculated by dividing earnings attributable to Owens Corning by the weighted-average number of shares of the Company's common stock outstanding during the period. Outstanding shares consist of issued shares less treasury stock.

On October 24, 2016, the Board of Directors approved a new share buy-back program under which the Company is authorized to repurchase up to 10 million shares of the Company's outstanding common stock (the "Repurchase Authorization"). The Repurchase Authorization enables the Company to repurchase shares through the open market, privately negotiated, or other transactions. The actual number of shares repurchased will depend on timing, market conditions and other factors and is at the Company's discretion. The Company repurchased 2.3 million shares of its common stock for \$142 million for the year ended December 31, 2017 under the Repurchase Authorization. As of December 31, 2017, 7.5 million shares remain available for repurchase under the Repurchase Authorization.

For the year ended December 31, 2017, we did not have any non-vested performance shares that had an anti-dilutive effect on earnings per share. For the years ended December 31, 2016 and 2015, the number of shares used in the calculation of diluted earnings per share did not include 0.1 million performance shares, and for the year ended December 31, 2015, 0.6 million options to purchase common stock, due to their anti-dilutive effect.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

19. INCOME TAXES

The following table summarizes our Earnings before taxes and Income tax expense (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Earnings before taxes:			
United States	\$ 342	\$ 281	\$ 214
Foreign	217	309	239
Total	<u>\$ 559</u>	<u>\$ 590</u>	<u>\$ 453</u>
Income tax expense:			
Current			
United States	\$ (2)	\$ (7)	\$ 2
State and local	5	4	1
Foreign	83	55	53
Total current	<u>86</u>	<u>52</u>	<u>56</u>
Deferred			
United States	196	117	83
State and local	3	8	10
Foreign	(16)	11	(29)
Total deferred	<u>183</u>	<u>136</u>	<u>64</u>
Total income tax expense	<u>\$ 269</u>	<u>\$ 188</u>	<u>\$ 120</u>

The reconciliation between the United States federal statutory rate and the Company's effective income tax rate from continuing operations is:

	Twelve Months Ended December 31,		
	2017	2016	2015
United States federal statutory rate	35 %	35 %	35 %
State and local income taxes, net of federal tax benefit	2	2	2
Foreign tax rate differential	(5)	(4)	2
U.S. tax expense on foreign earnings/loss	49	2	4
Legislative tax rate changes	(9)	1	—
Foreign tax credits	(29)	—	—
Valuation allowance	3	(3)	(16)
Uncertain tax positions and settlements	1	1	—
Other, net	1	(2)	—
Effective tax rate	<u>48 %</u>	<u>32 %</u>	<u>27 %</u>

The U.S. government enacted the Tax Act legislation on December 22, 2017. The Tax Act made broad and complex changes to the U.S. tax code, including but not limited to, a reduction to the U.S. federal corporate income tax rate from 35% to 21%; a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries (the "Transition Tax"); eliminating the corporate alternative minimum tax (AMT) and changing realization of AMT credits; changing rules related to uses and limitations of net operating loss (NOL) carryforwards created in tax years after December 31, 2017; changes to the limitations on available interest expense deductions; and changes to other existing deductions and business-related exclusions.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

19. INCOME TAXES (continued)

The SEC issued SAB 118, which provides guidance on the accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date to complete the accounting under ASC 740, "Income Taxes." In accordance with SAB 118, a company must account for those aspects of the Tax Act for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in its financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the tax laws that were in effect immediately before the enactment of the Tax Act.

The Company's accounting for the income tax effects of the Tax Act is incomplete. However, we were able to make reasonable estimates on certain effects of the Tax Act resulting in a total provisional charge to the financial statements of \$82 million. The provisional charge includes reasonable estimates for the Transition Tax charge of \$264 million, a benefit of \$160 million from the generation of foreign tax credits (FTCs), a charge of \$24 million for a valuation allowance established against the FTC generated, and a deferred tax benefit of \$46 million for the impact to our net U.S. deferred taxes liabilities as a result of the reduction of the corporate tax rate to 21%. The Company's provisional charge is based on reasonable and supportable assumptions and available inputs and underlying information as of December 31, 2017. Future guidance and interpretations from the Internal Revenue Service (IRS) may also impact our estimates and assumptions used for the provisional adjustments. We are continuing to gather additional information to more precisely compute the amount of the Transition Tax which may affect our analysis of FTCs generated and our deferred tax assets recorded at the reduced corporate tax rate of 21%. The Company was not yet able to make a reasonable estimate of the U.S. state tax effects of the Tax Act. Therefore, no provisional adjustments were recorded.

Effective January 1, 2018, the Tax Act creates a new requirement to include in U.S. income global intangible low-taxed income (GILTI) earned by controlled foreign corporations (CFCs). The GILTI must be included currently in the gross income of the CFCs' U.S. shareholder. Because of the complexity of the new GILTI tax rules, we are continuing to evaluate this provision of the Tax Act and the application of ASC 740 related to it. Under U.S. GAAP, we are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions related to GILTI as a current-period expense when incurred (the "period cost method") or (2) factoring such amounts into a company's measurement of its deferred taxes (the "deferred method"). Our selection of an accounting policy depends on several factors including, but not limited to, analyzing global income and the GILTI impact, future results of global operations and our intent and ability to modify our current legal structure. Therefore, we have not made a policy decision regarding whether to record deferred taxes on GILTI and have not made any adjustments related to the potential GILTI tax included in our financial statements.

The Company's analysis whether to change its indefinite reinvestment assertion on account of the Tax Act is incomplete. Therefore, we continue to assert indefinite reinvestment in accordance with ASC 740 based on the laws before enactment of the Tax Act. As of December 31, 2017, the Company has not recorded a deferred tax liability of approximately \$76 million for foreign withholding on approximately \$2.1 billion of accumulated undistributed earnings of its foreign subsidiaries and affiliates as they are considered by management to be permanently reinvested.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

19. INCOME TAXES (continued)

The cumulative temporary differences giving rise to the deferred tax assets and liabilities are as follows (in millions):

	December 31, 2017		December 31, 2016	
	Deferred Tax Assets	Deferred Tax Liabilities	Deferred Tax Assets	Deferred Tax Liabilities
Other employee benefits	\$ 92	\$ —	\$ 117	\$ —
Pension plans	48	—	146	—
Operating loss and tax credit carryforwards	377	—	826	—
Depreciation	—	234	—	330
Amortization	—	314	—	384
Foreign tax credits	160	—	—	—
State and local taxes	3	—	5	—
Other	69	—	62	—
Subtotal	749	548	1,156	714
Valuation allowances	(94)	—	(103)	—
Total deferred taxes	\$ 655	\$ 548	\$ 1,053	\$ 714

The following table summarizes the amount and expiration dates of our deferred tax assets related to operating loss and credit carryforwards at December 31, 2017 (in millions):

	Expiration Dates	Amounts
U.S. federal loss carryforwards	2027 – 2032	\$ 160
U.S. state loss carryforwards (a)	2018 – 2034	67
Foreign loss and tax credit carryforwards	Indefinite	70
Foreign loss and tax credit carryforwards (a)	2018 – 2034	51
Other U.S. federal and state tax credits	2028 – 2034	29
Total operating loss and tax credit carryforwards		\$ 377
U.S. foreign tax credits	2027	\$ 160

(a) As of December 31, 2017, \$8 million of U.S. state and \$8 million of foreign deferred tax assets related to loss carryforwards are set to expire over the next three years.

At December 31, 2017, the Company had federal, state and foreign NOL carryforwards of \$0.9 billion, \$1.8 billion and \$0.5 billion, respectively. In order to fully utilize our NOLs and U.S. FTCs, the Company will need to generate federal, state, and foreign earnings before taxes of approximately \$2.0 billion, \$2.1 billion, and \$0.5 billion, respectively. Certain of these loss carryforwards are subject to limitation as a result of the changes of control that resulted from the Company's emergence from bankruptcy in 2006 and the acquisition of certain foreign entities in 2007. However, the Company believes that these limitations on its loss carryforwards will not result in a forfeiture of any of the carryforwards.

On June 27, 2017, the Company acquired all the outstanding equity of Pittsburgh Corning Corporation (PCC). On the date of acquisition, PCC's tax attributes included a \$296 million NOL carryover generated during the tax year 2016 and short tax year ending June 27, 2017. Section 382 of the Internal Revenue Code (IRC) limits the use of net operating loss tax attributes when a corporation experiences an "ownership change." The acquisition of PCC on June 27, 2017 qualifies as an "ownership change" under IRC Section 382 which limits the ability to use pre-ownership change losses to offset post-ownership change taxable income. The limits imposed under IRC Section 382 allows utilization of \$192 million of PCC's NOLs and is included in the Company's total federal NOLs recorded as of December 31, 2017.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

19. INCOME TAXES (continued)

Deferred income taxes are provided for temporary differences between amounts of assets and liabilities for financial reporting purposes and the basis of such assets and liabilities as measured under enacted tax laws and regulations, as well as NOLs, tax credits and other carryforwards. A valuation allowance will be recorded to reduce deferred tax assets if, based on all available evidence, it is considered more likely than not that some portion or all of the recorded deferred tax assets will not be realized in future periods. To the extent the reversal of deferred tax liabilities is relied upon in our assessment of the realizability of deferred tax assets, they will reverse in the same period and jurisdiction as the temporary differences giving rise to the deferred tax assets. As of December 31, 2017, the Company had federal, state, and foreign net deferred tax assets before valuation allowances of \$100 million, \$24 million, and \$77 million, respectively.

The valuation allowance of \$94 million as of December 31, 2017 is related to tax assets of \$24 million, \$1 million and \$69 million for U.S. federal FTCs and certain state and foreign jurisdictions, respectively. The realization of deferred tax assets depends on achieving a certain minimum level of future taxable income. Management currently believes that it is at least reasonably possible that the minimum level of taxable income will be met within the next 12 months to reduce the valuation allowance of certain foreign jurisdictions by a range of zero to \$6 million. The valuation allowance of \$103 million as of December 31, 2016 is related to tax assets of \$13 million and \$90 million for certain state and foreign jurisdictions, respectively.

The Company, or one of its subsidiaries, files income tax returns in the United States and other foreign jurisdictions. The Company is no longer subject to U.S. federal tax examinations for years before 2013 or state and foreign examinations for years before 2008. Due to the potential for resolution of federal, state and foreign examinations, and the expiration of various statutes of limitation, it is reasonably possible that the gross unrecognized tax benefits balance may change within the next 12 months by a range of zero to \$6 million.

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows (in millions):

	Twelve Months Ended December 31,		
	2017	2016	2015
Balance at beginning of period	\$ 98	\$ 84	\$ 106
Tax positions related to the current year			
Gross additions	1	1	1
Tax positions related to prior years			
Gross additions	13	19	2
Gross reductions	(11)	(5)	(18)
Settlements	(12)	(1)	(7)
Impact of currency changes	1	—	—
Balance at end of period	\$ 90	\$ 98	\$ 84

The gross reduction of tax positions related to prior years includes the impact of adjusting our U.S. unrecognized tax benefits (UTBs) from the reduction of the U.S. federal corporate income tax rate from 35% to 21% as our U.S. UTBs are offset by our U.S. NOL position. If these UTBs were to be recognized as of December 31, 2017, the Company's income tax expense would decrease by about \$75 million.

The Company classifies all interest and penalties as income tax expense. As of December 31, 2017, 2016 and 2015, and for the periods then ended, the Company recognized \$11 million, \$11 million and \$8 million respectively, in liabilities for tax related interest and penalties on its Consolidated Balance Sheets and \$1 million, \$(1) million and \$3 million, respectively, of interest and penalty expense (income) on its Consolidated Statements of Earnings.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

20. QUARTERLY FINANCIAL INFORMATION (unaudited)

Select quarterly financial information is presented in the tables below for the quarterly periods (in millions, except per share amounts):

	Quarter			
	First	Second	Third	Fourth
2017				
Net sales	\$ 1,478	\$ 1,597	\$ 1,703	\$ 1,606
Gross margin	\$ 343	\$ 409	\$ 424	\$ 396
Income tax expense (a)	\$ 43	\$ 67	\$ 32	\$ 127
Net earnings (loss) attributable to Owens Corning	\$ 101	\$ 96	\$ 96	\$ (4)
BASIC EARNINGS (LOSS) PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS				
	\$ 0.90	\$ 0.86	\$ 0.86	\$ (0.04)
DILUTED EARNINGS (LOSS) PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS				
	\$ 0.89	\$ 0.85	\$ 0.85	\$ (0.04)
	Quarter			
	First	Second	Third	Fourth
2016				
Net sales	\$ 1,231	\$ 1,545	\$ 1,518	\$ 1,383
Gross margin	\$ 272	\$ 416	\$ 374	\$ 319
Income tax expense	\$ 34	\$ 73	\$ 65	\$ 16
Net earnings attributable to Owens Corning	\$ 57	\$ 138	\$ 112	\$ 86
BASIC EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS				
	\$ 0.49	\$ 1.20	\$ 0.98	\$ 0.77
DILUTED EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS				
	\$ 0.49	\$ 1.19	\$ 0.97	\$ 0.76

(a) Income tax expense for the fourth quarter of 2017 includes a provisional charge of \$82 million related to the Tax Act. Please refer to Note 19 for additional details on this charge.

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

The following Condensed Consolidating Financial Statements present the financial information required with respect to those entities which guarantee certain of the Company's debt. The Condensed Consolidating Financial Statements are presented on the equity method. Under this method, the investments in subsidiaries are recorded at cost and adjusted for the Company's share of the subsidiaries' cumulative results of operations, capital contributions, distributions and other equity changes. The principal elimination entries eliminate investment in subsidiaries and intercompany balances and transactions.

Guarantor and Nonguarantor Financial Statements

The Senior Notes and the Senior Revolving Credit Facility are guaranteed, fully, unconditionally and jointly and severally, by certain of Owens Corning's current and future wholly-owned material domestic subsidiaries that are borrowers or guarantors under the Credit Agreement, which permits changes to the named guarantors in certain situations (collectively, the "Guarantor Subsidiaries"). The remaining subsidiaries have not guaranteed the Senior Notes and the Senior Revolving Credit Facility (collectively, the "Nonguarantor Subsidiaries").

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2017
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET SALES	\$ —	\$ 4,639	\$ 2,250	\$ (505)	\$ 6,384
COST OF SALES	—	3,572	1,745	(505)	4,812
Gross margin	—	1,067	505	—	1,572
OPERATING EXPENSES					
Marketing and administrative expenses	153	325	142	—	620
Science and technology expenses	—	69	16	—	85
Other expenses, net	32	2	96	—	130
Total operating expenses	185	396	254	—	835
EARNINGS BEFORE INTEREST AND TAXES	(185)	671	251	—	737
Interest expense, net	96	(1)	12	—	107
Loss (gain) on extinguishment of debt	71	—	—	—	71
EARNINGS BEFORE TAXES	(352)	672	239	—	559
Income tax expense	(139)	334	74	—	269
Equity in net earnings of subsidiaries	502	164	—	(666)	—
Equity in net earnings (loss) of affiliates	—	—	—	—	—
NET EARNINGS	289	502	165	(666)	290
Net earnings attributable to noncontrolling interests	—	—	1	—	1
NET EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 289	\$ 502	\$ 164	\$ (666)	\$ 289

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2016
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET SALES	\$ —	\$ 4,103	\$ 2,046	\$ (472)	\$ 5,677
COST OF SALES	1	3,203	1,564	(472)	4,296
Gross margin	(1)	900	482	—	1,381
OPERATING EXPENSES					
Marketing and administrative expenses	148	316	120	—	584
Science and technology expenses	—	68	14	—	82
Other expenses, net	(14)	24	6	—	16
Total operating expenses	134	408	140	—	682
EARNINGS BEFORE INTEREST AND TAXES					
	(135)	492	342	—	699
Interest expense, net	99	(2)	11	—	108
Loss (gain) on extinguishment of debt	1	—	—	—	1
EARNINGS BEFORE TAXES					
	(235)	494	331	—	590
Income tax expense	(89)	206	71	—	188
Equity in net earnings of subsidiaries	539	251	—	(790)	—
Equity in net earnings (loss) of affiliates	—	—	(3)	—	(3)
NET EARNINGS					
	393	539	257	(790)	399
Net earnings attributable to noncontrolling interests	—	—	6	—	6
NET EARNINGS ATTRIBUTABLE TO OWENS CORNING					
	\$ 393	\$ 539	\$ 251	\$ (790)	\$ 393

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET SALES	\$ —	\$ 3,826	\$ 1,892	\$ (368)	\$ 5,350
COST OF SALES	1	3,095	1,469	(368)	4,197
Gross margin	(1)	731	423	—	1,153
OPERATING EXPENSES					
Marketing and administrative expenses	126	285	114	—	525
Science and technology expenses	—	60	13	—	73
Other expenses, net	(48)	26	29	—	7
Total operating expenses	78	371	156	—	605
EARNINGS BEFORE INTEREST AND TAXES	(79)	360	267	—	548
Interest expense, net	95	3	2	—	100
Loss (gain) on extinguishment of debt	(5)	—	—	—	(5)
EARNINGS BEFORE TAXES	(169)	357	265	—	453
Income tax expense	(71)	159	32	—	120
Equity in net earnings of subsidiaries	428	230	—	(658)	—
Equity in net earnings (loss) of affiliates	—	—	1	—	1
NET EARNINGS	330	428	234	(658)	334
Net earnings attributable to noncontrolling interests	—	—	4	—	4
NET EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 330	\$ 428	\$ 230	\$ (658)	\$ 330

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATING STATEMENT OF COMPREHENSIVE EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2017
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET EARNINGS	\$ 289	\$ 502	\$ 165	\$ (666)	\$ 290
Currency translation adjustment (net of tax)	101	2	123	(125)	101
Pension and other postretirement adjustment (net of tax)	98	1	40	(41)	98
Hedging adjustment (net of tax)	(3)	—	—	—	(3)
COMPREHENSIVE EARNINGS	485	505	328	(832)	486
Comprehensive earnings attributable to noncontrolling interests	—	—	1	—	1
COMPREHENSIVE EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 485	\$ 505	\$ 327	\$ (832)	\$ 485

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATING STATEMENT OF COMPREHENSIVE EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2016
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET EARNINGS	\$ 393	\$ 539	\$ 257	\$ (790)	\$ 399
Currency translation adjustment (net of tax)	(37)	(7)	(33)	40	(37)
Pension and other postretirement adjustment (net of tax)	(10)	41	(30)	(11)	(10)
Hedging adjustment (net of tax)	7	1	1	(2)	7
COMPREHENSIVE EARNINGS	353	574	195	(763)	359
Comprehensive earnings attributable to noncontrolling interests	—	—	6	—	6
COMPREHENSIVE EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 353	\$ 574	\$ 189	\$ (763)	\$ 353

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONSOLIDATING STATEMENT OF COMPREHENSIVE EARNINGS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET EARNINGS	\$ 330	\$ 428	\$ 234	\$ (658)	\$ 334
Currency translation adjustment (net of tax)	(115)	(5)	(118)	123	(115)
Pension and other postretirement adjustment (net of tax)	(6)	(2)	8	(6)	(6)
Hedging adjustment (net of tax)	1	4	(1)	(3)	1
COMPREHENSIVE EARNINGS	210	425	123	(544)	214
Comprehensive earnings attributable to noncontrolling interests	—	—	4	—	4
COMPREHENSIVE EARNINGS ATTRIBUTABLE TO OWENS CORNING	\$ 210	\$ 425	\$ 119	\$ (544)	\$ 210

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF DECEMBER 31, 2017
(in millions)

ASSETS	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
CURRENT ASSETS					
Cash and cash equivalents	\$ 137	\$ 2	\$ 107	\$ —	\$ 246
Receivables, net	—	—	806	—	806
Due from affiliates	—	3,403	—	(3,403)	—
Inventories	—	475	366	—	841
Other current assets	22	28	42	—	92
Total current assets	159	3,908	1,321	(3,403)	1,985
Investment in subsidiaries	8,777	2,040	—	(10,817)	—
Property, plant and equipment, net	465	1,699	1,261	—	3,425
Goodwill and intangible assets, net	—	2,383	553	(69)	2,867
Other non-current assets	(24)	221	158	—	355
TOTAL ASSETS	\$ 9,377	\$ 10,251	\$ 3,293	\$ (14,289)	\$ 8,632
LIABILITIES AND EQUITY					
CURRENT LIABILITIES					
Accounts and notes payable and other current liabilities	\$ 87	\$ 1,083	\$ 112	\$ —	\$ 1,282
Due to affiliates	2,529	—	874	(3,403)	—
Total current liabilities	2,616	1,083	986	(3,403)	1,282
Long-term debt, net of current portion	2,378	10	17	—	2,405
Deferred income taxes	—	—	37	—	37
Other liabilities	221	381	171	(69)	704
Redeemable equity	—	—	—	—	—
OWENS CORNING STOCKHOLDERS' EQUITY					
Total Owens Corning stockholders' equity	4,162	8,777	2,040	(10,817)	4,162
Noncontrolling interests	—	—	42	—	42
Total equity	4,162	8,777	2,082	(10,817)	4,204
TOTAL LIABILITIES AND EQUITY	\$ 9,377	\$ 10,251	\$ 3,293	\$ (14,289)	\$ 8,632

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING BALANCE SHEET
AS OF DECEMBER 31, 2016
(in millions)

ASSETS	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
CURRENT ASSETS					
Cash and cash equivalents	\$ —	\$ 55	\$ 57	\$ —	\$ 112
Receivables, net	—	—	678	—	678
Due from affiliates	—	2,612	—	(2,612)	—
Inventories	—	422	288	—	710
Other current assets	24	29	33	—	86
Total current assets	24	3,118	1,056	(2,612)	1,586
Investment in subsidiaries	7,745	1,653	—	(9,398)	—
Property, plant and equipment, net	470	1,600	1,042	—	3,112
Goodwill and intangible assets, net	—	2,197	394	(117)	2,474
Other non-current assets	(23)	424	168	—	569
TOTAL ASSETS	\$ 8,216	\$ 8,992	\$ 2,660	\$ (12,127)	\$ 7,741
LIABILITIES AND EQUITY					
CURRENT LIABILITIES					
Accounts and notes payable and other current liabilities	\$ 75	\$ 834	\$ 54	\$ —	\$ 963
Due to affiliates	1,941	—	671	(2,612)	—
Total current liabilities	2,016	834	725	(2,612)	963
Long-term debt, net of current portion	2,069	12	18	—	2,099
Deferred income taxes	—	—	36	—	36
Other liabilities	282	401	186	(117)	752
Redeemable equity	—	—	2	—	2
OWENS CORNING STOCKHOLDERS' EQUITY					
Total Owens Corning stockholders' equity	3,849	7,745	1,653	(9,398)	3,849
Noncontrolling interests	—	—	40	—	40
Total equity	3,849	7,745	1,693	(9,398)	3,889
TOTAL LIABILITIES AND EQUITY	\$ 8,216	\$ 8,992	\$ 2,660	\$ (12,127)	\$ 7,741

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2017
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET CASH FLOW PROVIDED BY					
OPERATING ACTIVITIES	\$ (101)	\$ 774	\$ 343	\$ —	\$ 1,016
NET CASH FLOW USED FOR INVESTING ACTIVITIES					
Cash paid for property, plant and equipment	(16)	(240)	(81)	—	(337)
Proceeds from the sale of assets or affiliates	—	3	—	—	3
Investment in subsidiaries and affiliates, net of cash acquired	—	(373)	(197)	—	(570)
Other	3	—	—	—	3
Net cash flow used for investing activities	(13)	(610)	(278)	—	(901)
NET CASH FLOW PROVIDED BY (USED FOR) FINANCING ACTIVITIES					
Proceeds from senior revolving credit and receivables securitization facilities	313	—	820	—	1,133
Payments on senior revolving credit and receivables securitization facilities	(313)	—	(820)	—	(1,133)
Proceeds from long-term debt	588	—	—	—	588
Payments on long-term debt	(351)	—	—	—	(351)
Proceeds from term loan borrowing	—	—	—	—	—
Payments on term loan borrowing	—	—	—	—	—
Dividends paid	(89)	—	—	—	(89)
Net increase (decrease) in short-term debt	—	—	1	—	1
Purchases of treasury stock	(159)	—	—	—	(159)
Intercompany dividends paid	—	—	—	—	—
Other	13	—	—	—	13
Other intercompany loans	249	(217)	(32)	—	—
Net cash flow provided by (used for) financing activities	251	(217)	(31)	—	3
Effect of exchange rate changes on cash	—	—	17	—	17
Net increase in cash, cash equivalents and restricted cash	137	(53)	51	—	135
Cash, cash equivalents and restricted cash at beginning of period	6	55	57	—	118
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD	\$ 143	\$ 2	\$ 108	\$ —	\$ 253

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2016
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET CASH FLOW PROVIDED BY					
OPERATING ACTIVITIES	\$ (113)	\$ 497	\$ 584	\$ (25)	\$ 943
NET CASH FLOW USED FOR INVESTING					
ACTIVITIES					
Cash paid for property, plant and equipment	(20)	(281)	(72)	—	(373)
Proceeds from the sale of assets or affiliates	—	—	—	—	—
Investment in subsidiaries and affiliates, net of cash acquired	—	—	(452)	—	(452)
Other	10	—	—	—	10
Net cash flow used for investing activities	(10)	(281)	(524)	—	(815)
NET CASH FLOW PROVIDED BY (USED FOR) FINANCING ACTIVITIES					
Proceeds from senior revolving credit and receivables securitization facilities	—	—	669	—	669
Payments on senior revolving credit and receivables securitization facilities	—	—	(669)	—	(669)
Proceeds from term loan borrowing	300	—	—	—	300
Payments on term loan borrowing	(300)	—	—	—	(300)
Proceeds from long-term debt	395	—	—	—	395
Payments on long-term debt	(160)	(1)	(2)	—	(163)
Dividends paid	(81)	—	—	—	(81)
Net increase (decrease) in short-term debt	—	—	(6)	—	(6)
Purchases of treasury stock	(247)	—	—	—	(247)
Other	14	—	—	—	14
Intercompany dividends paid	—	—	(25)	25	—
Other intercompany loans	208	(208)	—	—	—
Net cash flow provided by (used for) financing activities	129	(209)	(33)	25	(88)
Effect of exchange rate changes on cash	—	—	(18)	—	(18)
Net increase in cash, cash equivalents and restricted cash	6	7	9	—	22
Cash, cash equivalents and restricted cash at beginning of period	—	48	48	—	96
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD	\$ 6	\$ 55	\$ 57	\$ —	\$ 118

OWENS CORNING AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS (continued)

OWENS CORNING AND SUBSIDIARIES
CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2015
(in millions)

	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES	\$ (106)	\$ 465	\$ 388	\$ (5)	\$ 742
NET CASH FLOW USED FOR INVESTING ACTIVITIES					
Cash paid for property, plant and equipment	(21)	(271)	(109)	—	(401)
Proceeds from the sale of assets or affiliates	—	—	28	—	28
Investment in subsidiaries and affiliates, net of cash required	—	—	—	—	—
Other	4	—	—	—	4
Net cash flow used for investing activities	(17)	(271)	(81)	—	(369)
NET CASH FLOW PROVIDED BY (USED FOR) FINANCING ACTIVITIES					
Proceeds from senior revolving credit and receivables securitization facilities	1,236	—	310	—	1,546
Payments on senior revolving credit and receivables securitization facilities	(1,236)	—	(416)	—	(1,652)
Proceeds from term loan borrowings	—	—	—	—	—
Payments on term loan borrowings	—	—	—	—	—
Proceeds from long-term debt	—	—	—	—	—
Payments on long-term debt	(5)	(1)	(2)	—	(8)
Dividends paid	(78)	—	—	—	(78)
Net increase (decrease) in short-term debt	—	(25)	3	—	(22)
Purchases of treasury stock	(138)	—	—	—	(138)
Other	19	—	—	—	19
Intercompany dividends paid	—	—	(5)	5	—
Other intercompany loans	325	(121)	(204)	—	—
Net cash flow provided by (used for) financing activities	123	(147)	(314)	5	(333)
Effect of exchange rate changes on cash	—	—	(11)	—	(11)
Net increase in cash, cash equivalents and restricted cash	—	47	(18)	—	29
Cash, cash equivalents and restricted cash at beginning of period	—	1	66	—	67
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD	\$ —	\$ 48	\$ 48	\$ —	\$ 96

OWENS CORNING AND SUBSIDIARIES
INDEX TO CONDENSED FINANCIAL STATEMENT SCHEDULE

<u>Number</u>	<u>Description</u>	<u>Page</u>
II	Valuation and Qualifying Accounts and Reserves – for the years ended December 31, 2017, 2016 and 2015	114

OWENS CORNING AND SUBSIDIARIES
SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS AND RESERVES FOR THE YEARS ENDED December 31, 2017, 2016 AND 2015
(in millions)

	Balance at Beginning of Period	Charged to Costs and Expenses	Charged to Other Accounts	Deductions	Acquisitions and Divestitures	Balance at End of Period
FOR THE YEAR ENDED DECEMBER 31, 2017						
Allowance for doubtful accounts	\$ 9	\$ 12	\$ —	\$ (2) (a)	\$ —	\$ 19
Tax valuation allowance	\$ 103	\$ 9	\$ 7	\$ (25)	\$ —	\$ 94
FOR THE YEAR ENDED DECEMBER 31, 2016						
Allowance for doubtful accounts	\$ 8	\$ 2	\$ —	\$ (1) (a)	\$ —	\$ 9
Tax valuation allowance	\$ 135	\$ (27)	\$ (5)	\$ —	\$ —	\$ 103
FOR THE YEAR ENDED DECEMBER 31, 2015						
Allowance for doubtful accounts	\$ 10	\$ —	\$ —	\$ (2) (a)	\$ —	\$ 8
Tax valuation allowance	\$ 227	\$ (73)	\$ (18)	\$ (1)	\$ —	\$ 135

(a) Uncollectible accounts written off, net of recoveries.

OWENS CORNING

FIFTH SUPPLEMENTAL INDENTURE

FIFTH SUPPLEMENTAL INDENTURE (this “Supplemental Indenture”), dated as of October 3, 2016, among Owens Corning Mineral Wool, LLC, a Delaware limited liability company, Owens Corning Non-Woven Technology, LLC, a Delaware limited liability company, Owens Corning Technical Fabrics, LLC, a Delaware limited liability company, Thermafiber, Inc., a Delaware corporation, and InterWrap Corp., an Oregon corporation (each a “Guaranteeing Subsidiary” and, together, the “Guaranteeing Subsidiaries”), subsidiaries of Owens Corning, a Delaware corporation (the “Company”), the Company and Wells Fargo Bank, National Association, as successor trustee under the Indenture referred to below (the “Trustee”).

WITNESSETH

WHEREAS, the Company has heretofore executed and delivered an indenture (the “Indenture”), dated as of October 31, 2006, providing for the issuance of the 7.00% Senior Notes due 2036 (the “Notes”);

WHEREAS, the Indenture provides that under certain circumstances each Guaranteeing Subsidiary shall execute and deliver to the Trustee a supplemental indenture pursuant to which the Guaranteeing Subsidiary shall unconditionally guarantee all of the Company’s Obligations under the Notes and the Indenture on the terms and conditions set forth herein (the “Note Guarantee”);

WHEREAS, each Guaranteeing Subsidiary, concurrently with the execution of this Supplemental Indenture, will guarantee the Company’s Obligations under the Credit Agreement; and

WHEREAS, pursuant to Section 9.01 of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Company, the Guaranteeing Subsidiaries and the Trustee mutually covenant and agree for the equal and ratable benefit of the Holders of the Notes as follows:

1. CAPITALIZED TERMS. Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.
 2. AGREEMENT TO GUARANTEE. Each Guaranteeing Subsidiary hereby agrees to provide an unconditional Guarantee on the terms and subject to the conditions set forth in the Note Guarantee and in the Indenture including but not limited to Article 10 thereof.
 3. NO RECOURSE AGAINST OTHERS. No past, present or future director, officer, employee, incorporator, stockholder or agent of any Guaranteeing Subsidiary, as such, shall have any liability for any obligations of the Company or any Guarantor under the Notes, any Note Guarantees, the Indenture or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of the Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes. Such waiver may not be effective to waive liabilities under the federal securities laws and it is the view of the SEC that such a waiver is against public policy.
 4. NEW YORK LAW TO GOVERN. THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.
 5. COUNTERPARTS. The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.
 6. EFFECT OF HEADINGS. The Section headings herein are for convenience only and shall not affect the construction hereof.
 7. THE TRUSTEE. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Guaranteeing Subsidiaries and the Company. The Trustee accepts the trusts created by the Indenture, as amended and supplemented by this Supplemental Indenture, and agrees to perform the same upon the terms and conditions of the
-

Indenture, as amended and supplemented by this Supplemental Indenture. All of the provisions contained in the Indenture in respect of the rights, privileges, immunities, powers, and duties of the Trustee shall be applicable in respect of the Supplemental Indenture as fully and with like force and effect as though fully set forth in full herein.

[Signatures follow.]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed and attested, all as of the date first above written.

Owens Corning Mineral Wool, LLC
Owens Corning Non-Woven Technology, LLC
Owens Corning Technical Fabrics, LLC
Thermafiber, Inc.
InterWrap Corp.

By: /s/ Brad Lazorka

Name: Brad Lazorka

Title: Authorized Representative

Owens Corning

By: /s/ Michael C. McMurray

Name: Michael C. McMurray

Title: Senior Vice President and Chief Financial Officer

By: /s/ Brad Lazorka

Name: Brad Lazorka

Title: Vice President, Treasurer

Wells Fargo Bank, National Association,

as Trustee

By: /s/ Julius R. Zamora

Name: Julius R. Zamora

Title: Vice President

NOTATION OF GUARANTEE

For value received, each Guarantor (which term includes any successor Person under the Indenture) has, jointly and severally, unconditionally guaranteed, to the extent set forth in the Indenture and subject to the provisions in the Indenture dated as of October 31, 2006 (as supplemented by the First Supplemental Indenture dated as of April 13, 2007, the Second Supplemental Indenture dated as of December 12, 2007, the Third Supplemental Indenture dated as of April 24, 2008, the Fourth Supplemental Indenture dated as of May 26, 2010 and the Fifth Supplemental Indenture dated as of October 3, 2016, the "Indenture") among Owens Corning, (the "Company"), the Guarantors party thereto and Wells Fargo Bank, National Association, as successor trustee (the "Trustee"), (a) the due and punctual payment of the principal of, premium and Liquidated Damages, if any, and interest on, the Notes, whether at maturity, by acceleration, redemption or otherwise, the due and punctual payment of interest on overdue principal of and interest on the Notes, if any, if lawful, and the due and punctual performance of all other obligations of the Company to the Holders or the Trustee all in accordance with the terms of the Indenture and (b) in case of any extension of time of payment or renewal of any Notes or any of such other obligations, that the same will be promptly paid in full when due or performed in accordance with the terms of the extension or renewal, whether at stated maturity, by acceleration or otherwise. The obligations of the Guarantors to the Holders of Notes and to the Trustee pursuant to the Note Guarantee and the Indenture are expressly set forth in Article 10 of the Indenture and reference is hereby made to the Indenture for the precise terms of the Note Guarantee.

Capitalized terms used but not defined herein have the meanings given to them in the Indenture.

[Remainder of Page Intentionally Left Blank]Notation of Guarantee - Fifth Supplemental Indenture

Owens Corning Mineral Wool, LLC
Owens Corning Non-Woven Technology, LLC
Owens Corning Technical Fabrics, LLC
Thermafiber, Inc.
InterWrap Corp.

By: /s/ Brad Lazorka

Name: Brad Lazorka

Title: Authorized Representative

OWENS CORNING

SIXTH SUPPLEMENTAL INDENTURE

SIXTH SUPPLEMENTAL INDENTURE (this “Supplemental Indenture”), dated as of February 27, 2017, among Owens Corning Automotive LLC, a Delaware limited liability company (the “Guaranteeing Subsidiary”), a subsidiary of Owens Corning, a Delaware corporation (the “Company”), the Company and Wells Fargo Bank, National Association, as successor trustee under the Indenture referred to below (the “Trustee”).

W I T N E S S E T H

WHEREAS, the Company has heretofore executed and delivered an indenture (the “Indenture”), dated as of October 31, 2006, providing for the issuance of the 7.00% Senior Notes due 2036 (the “Notes”);

WHEREAS, the Indenture provides that under certain circumstances the Guaranteeing Subsidiary shall execute and deliver to the Trustee a supplemental indenture pursuant to which the Guaranteeing Subsidiary shall unconditionally guarantee all of the Company’s Obligations under the Notes and the Indenture on the terms and conditions set forth herein (the “Note Guarantee”);

WHEREAS, the Guaranteeing Subsidiary, concurrently with the execution of this Supplemental Indenture, will guarantee the Company’s Obligations under the Credit Agreement; and

WHEREAS, pursuant to Section 9.01 of the Indenture, the Trustee is authorized to execute and deliver this Supplemental Indenture.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Company, the Guaranteeing Subsidiary and the Trustee mutually covenant and agree for the equal and ratable benefit of the Holders of the Notes as follows:

1. CAPITALIZED TERMS. Capitalized terms used herein without definition shall have the meanings assigned to them in the Indenture.
2. AGREEMENT TO GUARANTEE. The Guaranteeing Subsidiary hereby agrees to provide an unconditional Guarantee on the terms and subject to the conditions set forth in the Note Guarantee and in the Indenture including but not limited to Article 10 thereof.
3. NO RECOURSE AGAINST OTHERS. No past, present or future director, officer, employee, incorporator, stockholder or agent of the Guaranteeing Subsidiary, as such, shall have any liability for any obligations of the Company or any Guarantor under the Notes, any Note Guarantees, the Indenture or this Supplemental Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of the Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes. Such waiver may not be effective to waive liabilities under the federal securities laws and it is the view of the SEC that such a waiver is against public policy.
4. NEW YORK LAW TO GOVERN. THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS SUPPLEMENTAL INDENTURE WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.
5. COUNTERPARTS. The parties may sign any number of copies of this Supplemental Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.
6. EFFECT OF HEADINGS. The Section headings herein are for convenience only and shall not affect the construction hereof.
7. THE TRUSTEE. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Guaranteeing Subsidiary and the Company. The Trustee accepts the trusts created by the Indenture, as amended and supplemented by this Supplemental Indenture, and agrees to perform the same upon the terms and conditions of the Indenture, as amended and supplemented by this Supplemental Indenture. All of the provisions contained in the Indenture in respect of the rights, privileges, immunities, powers, and duties of the Trustee shall be applicable in respect of the Supplemental Indenture as fully and with like force and effect as though fully set forth in full herein.

[Signatures follow.]

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed and attested, all as of the date first above written.

Owens Corning Automotive LLC

By: /s/ Brad Lazorka

Name: Brad Lazorka

Title: Authorized Representative

Owens Corning

By: /s/ Michael C. McMurray

Name: Michael C. McMurray

Title: Senior Vice President and Chief Financial Officer

By: /s/ Brad Lazorka

Name: Brad Lazorka

Title: Vice President, Treasurer

Wells Fargo Bank, National Association,

as Trustee

By: /s/ Barry D. Somrock

Name: Barry D. Somrock

Title: Vice President

NOTATION OF GUARANTEE

For value received, the Guarantor (which term includes any successor Person under the Indenture) has, jointly and severally, unconditionally guaranteed, to the extent set forth in the Indenture and subject to the provisions in the Indenture dated as of October 31, 2006 (as supplemented by the First Supplemental Indenture dated as of April 13, 2007, the Second Supplemental Indenture dated as of December 12, 2007, the Third Supplemental Indenture dated as of April 24, 2008, the Fourth Supplemental Indenture dated as of May 26, 2010, the Fifth Supplemental Indenture dated as of October 3, 2016 and the Sixth Supplemental Indenture dated as of February 27, 2017, the “Indenture”) among Owens Corning, (the “Company”), the Guarantors party thereto and Wells Fargo Bank, National Association, as successor trustee (the “Trustee”), (a) the due and punctual payment of the principal of, premium and Liquidated Damages, if any, and interest on, the Notes, whether at maturity, by acceleration, redemption or otherwise, the due and punctual payment of interest on overdue principal of and interest on the Notes, if any, if lawful, and the due and punctual performance of all other obligations of the Company to the Holders or the Trustee all in accordance with the terms of the Indenture and (b) in case of any extension of time of payment or renewal of any Notes or any of such other obligations, that the same will be promptly paid in full when due or performed in accordance with the terms of the extension or renewal, whether at stated maturity, by acceleration or otherwise. The obligations of the Guarantor to the Holders of Notes and to the Trustee pursuant to the Note Guarantee and the Indenture are expressly set forth in Article 10 of the Indenture and reference is hereby made to the Indenture for the precise terms of the Note Guarantee.

Capitalized terms used but not defined herein have the meanings given to them in the Indenture.

[Remainder of Page Intentionally Left Blank]Notation of Guarantee - Sixth Supplemental Indenture

Owens Corning Automotive LLC

By: /s/ Brad Lazorka

Name: Brad Lazorka

Title: Authorized Representative

\$600,000,000

TERM LOAN AGREEMENT

dated as of October 27, 2017,

by and among

OWENS CORNING ,
as Borrower,

the Lenders referred to herein,
as Lenders,
and

JPMORGAN CHASE BANK, N.A. ,
as Administrative Agent

CITIBANK, N.A. and
WELLS FARGO BANK, NATIONAL ASSOCIATION ,
as Syndication Agents

and

JPMORGAN CHASE BANK, N.A.,
CITIGROUP GLOBAL MARKETS INC.
and

WELLS FARGO SECURITIES, LLC ,
as Joint Lead Arrangers and Joint Bookrunners

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-

TERM LOAN AGREEMENT, dated as of October 27, 2017, by and among OWENS CORNING, a Delaware corporation (the “Borrower”), the lenders signatory hereto and the lenders who may become a party to this Agreement pursuant to the terms hereof (collectively with the lenders signatory hereto, the “Lenders”) and JPMORGAN CHASE BANK, N.A., a national banking association, as Administrative Agent (the “Administrative Agent”) for the Lenders.

STATEMENT OF PURPOSE

WHEREAS, the Borrower has requested, and the Lenders have agreed to extend to the Borrower, certain credit facilities on the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the premises and of the agreements, provisions and covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.1 Definitions. The following terms when used in this Agreement shall have the meanings assigned to them below:

“Acquisition” shall have the meaning provided in Section 8.2.

“Act” shall mean the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), as amended.

“Administrative Agent” shall mean JPMorgan, in its capacity as Administrative Agent hereunder, and any successor thereto appointed pursuant to Section 10.6.

“Administrative Agent’s Office” shall mean the office of the Administrative Agent specified in or determined in accordance with the provisions of Section 11.1(c).

“Administrative Questionnaire” shall mean an administrative questionnaire in a form supplied by the Administrative Agent.

“Affiliate” shall mean, with respect to any Person, any other Person directly or indirectly controlling (including, but not limited to, all directors and officers of such Person), controlled by, or under direct or indirect common control with, such Person. A Person shall be deemed to control another Person if such Person possesses, directly or indirectly, the power (i) to vote 15% or more of the securities having ordinary voting power for the election of directors (or equivalent governing body) of such Person or (ii) to direct or cause the direction of the management and policies of such other Person, whether through the ownership of voting securities, by contract or otherwise; provided, however, that none of the Administrative Agent, any Lender or any of their respective Affiliates shall be considered an Affiliate of the Borrower or any Subsidiary thereof by reason of its acting in its capacities as such.

“Agreement” shall mean this Term Loan Agreement, as amended, restated, supplemented or otherwise modified from time to time.

“Alternate Rating Agency” shall mean, with respect to any current Rating Agency, a substitute rating agency that is a nationally recognized rating agency and that has been approved in writing by the Administrative Agent (such approval not to be unreasonably withheld or delayed).

“ Anti-Corruption Laws ” shall mean all laws, rules, and regulations of any jurisdiction applicable to the Borrower or any of its Subsidiaries from time to time concerning or relating to bribery or corruption.

“ Anti-Money Laundering Laws ” shall mean the US Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 and the regulations and rules promulgated thereunder, as amended from time to time; the US Money Laundering Control Act of 1986 and the regulations and rules promulgated thereunder, as amended from time to time; the US Bank Secrecy Act and the regulations and rules promulgated thereunder, as amended from time to time; and corresponding laws of (a) the European Union or Canada designed to combat money laundering and terrorist financing and (b) jurisdictions in which the Borrower or any of its Affiliates operates or in which the proceeds of the Term Loan will be used or from which funds used to repay any Obligation will be derived.

“ Applicable Law ” shall mean all applicable provisions of constitutions, laws, statutes, ordinances, rules, treaties, regulations, permits, licenses, approvals, interpretations and orders of courts or Governmental Authorities and all orders and decrees of all courts and arbitrators.

“ Applicable Margin ” shall mean the per annum rate determined as set forth below based on the Debt Rating as set forth below:

Pricing Level	Debt Rating	Ticking Fee	LIBOR +	Base Rate +
I	BBB+/Baa1/BBB+ or higher	0.125%	1.125%	0.125%
II	BBB/Baa2/BBB	0.150%	1.250%	0.250%
III	BBB-/Baa3/BBB-	0.200%	1.500%	0.500%
IV	BB+/Ba1/BB+	0.250%	1.750%	0.750%
V	BB/Ba2/BB or lower	0.300%	2.000%	1.000%

Each change in the Applicable Margin resulting from a publicly announced change in the Debt Rating shall be effective during the period commencing on the date of such public announcement and ending on the date immediately preceding the effective date of the next such publicly announced change. If at any time there is a split in the Debt Ratings issued by the three Rating Agencies (with the Debt Rating for Pricing Level I being the highest and the Debt Rating for Pricing Level V being the lowest) and (i) two Debt Ratings are equal and higher than the third, the Pricing Level of the higher Debt Ratings shall be in effect, (ii) two Debt Ratings are equal and lower than the third, the Pricing Level of the lower Debt Ratings shall be in effect or (iii) no Debt Ratings are equal, the Pricing Level of the intermediate Debt Rating shall be in effect. In the event of a Rating Agency Disruption with respect to one of the three Rating Agencies, the Debt Rating of the two non-affected Rating Agencies shall be the basis for determining the Pricing Level, and if at any time there is a split in the Debt Ratings issued by such two Rating Agencies, then the higher of such Debt Ratings shall apply, unless there is a split in Debt Ratings of more than one Pricing Level, in which case the Pricing Level that is one Pricing Level higher than the Pricing Level of the lower Debt Rating shall apply. In the event of a Rating Agency Disruption with respect to two of the Rating Agencies, the Debt Rating of the one non-affected Rating Agency shall be the basis for determining the Pricing Level for a period ending on the earlier of (i) the date at least one Alternate Rating Agency is approved by the Administrative Agent and (ii) thirty (30) days following such Rating Agency Disruption, during which period the Borrower and the Administrative Agent will engage in good faith negotiations to name one or more Alternate Rating Agency. If, at the end of such period, at least one Alternate Rating Agency has not been named, Pricing Level V shall apply until at least one Alternate Rating Agency is named. In the event of a Rating Agency Disruption with respect to all three of the Rating Agencies, Pricing Level V shall apply and the Administrative Agent and the Borrower shall enter into good faith negotiations to name at least two Alternate Rating Agencies. In the event of the approval of an Alternate Rating Agency, references in the table set forth above to the Debt Ratings of the replaced Rating Agency shall be deemed to be references to the corresponding Debt Ratings of the Alternate Rating Agency.

“Approved Fund” shall mean any Fund that is administered or managed by (i) a Lender, (ii) an Affiliate of a Lender or (iii) an entity or an Affiliate of an entity that administers or manages a Lender.

“Asset Sale” shall mean any sale, transfer or other disposition by the Borrower or any of its Subsidiaries to any Person other than the Borrower or any Subsidiary of the Borrower of any asset or Property (including, without limitation, any capital stock or other securities of, or other Equity Interests in, another Person, but excluding the sale by the Borrower of its own capital stock) of the Borrower or such Subsidiary other than (i) sales, transfers or other dispositions of inventory made in the ordinary course of business or (ii) sales or liquidations of Cash Equivalents, it being understood and agreed that the grant of a Lien by the Borrower or any of its Subsidiaries in favor of another Person shall not in and of itself constitute an “Asset Sale” for purposes of this definition.

“Asset Securitization” shall mean a sale, other transfer or factoring arrangement by the Borrower and/or one or more of its Subsidiaries of accounts, related general intangibles and chattel paper, and the related security and collections with respect thereto to a special purpose Subsidiary (an “SPV”), and the sale, pledge or other transfer by that SPV in connection with financing provided to that SPV, which financing shall be “non-recourse” to the Borrower and its Subsidiaries (other than the SPV) except pursuant to the Standard Securitization Undertakings.

“Assignment and Assumption” shall mean an assignment and assumption entered into by a Lender and an assignee (with the consent of any party whose consent is required by Section 11.9), and accepted by the Administrative Agent, in substantially the form attached as Exhibit G or any other form approved by the Administrative Agent.

“Attributable Securitization Indebtedness” shall mean, at any time with respect to an Asset Securitization by the Borrower or any of its Subsidiaries, the principal amount of Indebtedness which (i) if the financing received by an SPV as part of such Asset Securitization is treated as a secured lending arrangement, is the principal amount of such Indebtedness, or (ii) if the financing received by the relevant SPV is structured as a purchase agreement, would be outstanding at such time if such financing were structured as a secured lending arrangement rather than a purchase agreement, and in any such case which Indebtedness is without recourse to the Borrower or any of its Subsidiaries (other than such SPV or pursuant to Standard Securitization Undertakings), in each case, together with interest payable thereon and fees payable in connection therewith.

“Bail-In Action” shall mean the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“Bail-In Legislation” shall mean, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“Bankruptcy Code” shall have the meaning provided in Section 9.1(e).

“Bankruptcy Court” shall mean the United States Bankruptcy Court for the District of Delaware.

“Base Rate” shall mean, at any time, the highest of (i) the Prime Rate (ii) the NYFRB Rate plus 0.50% and (iii) except during any period of time during which a notice delivered to the Borrower under Section 4.8 shall remain in effect, the LIBOR Rate for a one month Interest Period in Dollars on such day (or if such day is not a Business Day, the immediately preceding Business Day) plus 1.00%, provided that for the purpose of this definition, the LIBOR Rate for any day shall be based on LIBOR (or if LIBOR is not available for such one month Interest Period, the Interpolated Rate) at approximately 11:00 a.m. London time on such day. Any change in the Base Rate shall take effect simultaneously with the corresponding change or changes in the Prime Rate, the NYFRB Rate or LIBOR Rate, respectively. If the Base Rate is being used as an alternate rate of interest pursuant to Section 4.8(a) hereof, then the Base Rate shall be the higher of clause (i) and (ii) above and shall be determined without reference to clause (iii) above. For the avoidance of doubt, if the Base Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Base Rate Loan” shall mean any Loan bearing interest at a rate based upon the Base Rate as provided in Section 4.1(a).

“Borrower” shall have the meaning provided in the introductory paragraph hereto.

“Borrower Common Stock” shall mean shares of common stock of the Borrower.

“Business Day” shall mean (i) for all purposes other than as covered by clause (ii) below, any day except Saturday, Sunday and any day which shall be in New York, New York a legal holiday or a day on which banking institutions are authorized or required by law or other government action to close and (ii) with respect to all notices and determinations in connection with, and payments of principal and interest on or with respect to, any LIBOR Rate Loan, any day which is a Business Day described in clause (i) and which is also a day for trading by and between banks in Dollar deposits in the London interbank market and which shall not be a legal holiday or a day on which banking institutions are authorized or required by law or other government action to close in London, England or New York, New York.

“Capital Lease” shall mean, as applied to any Person, any lease of any Property by that Person as lessee which, in conformity with U.S. GAAP, is accounted for as a capital lease on the balance sheet of that Person.

“Capitalized Lease Obligations” shall mean, with respect to any Person, all obligations under Capital Leases of such Person, in each case taken at the amount thereof accounted for as indebtedness in accordance with U.S. GAAP.

“Cash Equivalents” shall mean, as to any Person, (i) securities issued or directly and fully guaranteed or insured by the United States or any agency or instrumentality thereof (provided that the full faith and credit of the United States is pledged in support thereof) having maturities of not more than six months from the date of acquisition, (ii) marketable direct obligations issued by any state of the United States or any political subdivision of any such state or any public instrumentality thereof maturing within six months from the date of acquisition thereof and, at the time of acquisition, having one of the two highest ratings obtainable from either S&P or Moody’s, (iii) Dollar denominated time deposits, certificates of deposit and bankers acceptances of any Lender or any commercial bank having, or which is the principal banking subsidiary of a bank holding company having, a long-term unsecured debt rating of at least “A” or the equivalent thereof from S&P or “A2” or the equivalent thereof from Moody’s with maturities of not more than six months from the date of acquisition by such Person, (iv) repurchase obligations with a term of not more than seven days for underlying securities of the types described in clause (i) above entered into with any bank meeting the qualifications specified in clause (iii) above, (v) commercial paper issued by any Person incorporated in the United States rated at least A-1 or the equivalent thereof by S&P or at least P-1 or the equivalent thereof by Moody’s and in each case maturing not more than six months after the date of acquisition by such Person, (vi) investments in money market funds substantially all of whose assets are comprised of securities of the types described in clauses (i) through (v) above, and (vii) in the case of any Foreign Subsidiary only, direct obligations of the sovereign nation (or any agency thereof) in which such Foreign Subsidiary is organized and is conducting business or in obligations fully and unconditionally guaranteed by such sovereign nation (or any agency thereof).

“CFC” shall mean a “controlled foreign corporation” as defined in Section 957 of the Code.

“Change in Law” shall mean the occurrence, after the date of this Agreement (or, with respect to any Lender, if later, the date on which such Lender becomes a Lender), of any of the following: (i) the adoption or taking effect of any law, rule, regulation or treaty, (ii) any change in any law, rule, regulation or treaty or in the administration, interpretation or application thereof by any Governmental Authority or (iii) the making or issuance of any request, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything herein to the contrary, (a) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (b) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a “Change in Law”, regardless of the date enacted, adopted or issued.

“Change of Control” shall mean (i) any “Person” or “Group” (within the meaning of Sections 13(d) and 14(d) under the Exchange Act) (A) is or shall be the “beneficial owner” (as so defined in Rules 13(d)-3 and 13(d)-5 under the

Exchange Act) of 40% or more on a fully diluted basis of the aggregate ordinary voting power represented by the Borrower's capital stock or other Equity Interests or (B) has obtained the power (whether or not exercised) to elect a majority of the Borrower's directors, (ii) the board of directors of the Borrower shall cease to consist of a majority of Continuing Directors, or (iii) a "change of control" or similar event shall occur as provided in the Revolving Credit Agreement, in the 364-Day Term Loan Agreement or in any Senior Notes Documents.

"Closing Date" shall mean the date of this Agreement or such later Business Day upon which each condition described in Section 5.1 shall be satisfied or waived in all respects in a manner acceptable to the Administrative Agent, in its sole discretion.

"Code" shall mean the Internal Revenue Code of 1986.

"Company" shall mean any corporation, limited liability company, partnership, trust or other domestic or foreign entity or organizational form (or the adjectival form thereof, where appropriate).

"Consolidated" shall mean, when used with reference to financial statements or financial statement items of any Person, such statements or items on a consolidated basis in accordance with applicable principles of consolidation under U.S. GAAP.

"Consolidated EBITDA" shall mean, for any period, Consolidated Net Income for such period (without giving effect to (x) any extraordinary gains or losses and/or any write-off of long lived or intangible assets, (y) any non-cash income, and (z) any gains or losses (in excess of \$10,000,000 for any sale) from sales of assets other than inventory sold in the ordinary course of business) adjusted by adding thereto (in each case to the extent deducted in determining Consolidated Net Income for such period), without duplication, the amount of (i) total interest expense (inclusive of amortization of deferred financing fees and other original issue discount and banking fees, charges and commissions (e.g., letter of credit fees and facility fees)) of the Borrower and its Subsidiaries determined on a consolidated basis for such period, (ii) provision for taxes based on income and foreign withholding taxes for the Borrower and its Subsidiaries determined on a consolidated basis for such period, (iii) all depreciation and amortization expense of the Borrower and its Subsidiaries determined on a consolidated basis for such period, including depletion of precious metals used in manufacturing processes and (iv) in the case of any period that includes the first Fiscal Quarter ended after the Closing Date, the amount of all fees and expenses incurred in connection with the transactions contemplated by this Agreement during such Fiscal Quarter. For the avoidance of doubt, it is understood and agreed that, to the extent any amounts are excluded from Consolidated Net Income by virtue of the proviso to the definition thereof contained herein, any add backs to Consolidated Net Income in determining Consolidated EBITDA as provided above shall be limited (or denied) in a fashion consistent with the proviso to the definition of "Consolidated Net Income" contained herein.

"Consolidated Interest Expense" shall mean, for any period, (i) the total consolidated interest expense of the Borrower and its Subsidiaries (including, without limitation, all commissions, discounts and other commitment and banking fees and charges (e.g., fees with respect to letters of credit, Interest Rate Protection Agreements and Other Hedging Agreements) for such period, adjusted to exclude (to the extent same would otherwise be included in the calculation above in this clause (i)) the amortization of any deferred financing costs for such period, capitalized interest expense and any other interest expense which, in accordance with the terms of the relevant Indebtedness, is paid-in-kind through the issuance of additional notes or added to the principal amount of such outstanding Indebtedness, in each case so long as the respective notes or Indebtedness matures after the Term Loan Maturity Date plus (ii) without duplication, (x) that portion of Capitalized Lease Obligations of the Borrower and its Subsidiaries on a consolidated basis representing the interest factor for such period and (y) the "deemed interest expense" (i.e., the interest expense which would have been applicable if the respective obligations were structured as on-balance sheet financing arrangements) with respect to all Off-Balance Sheet Liabilities of the Borrower and its Subsidiaries (to the extent the same does not arise from a financing arrangement constituting an operating lease) for such period minus interest income of the Borrower and its Subsidiaries received upon cash and Cash Equivalents.

"Consolidated Net Income" shall mean, for any period, the net income (or loss) of the Borrower and its Subsidiaries determined on a consolidated basis for such period (taken as a single accounting period) in accordance with U.S. GAAP, provided that the following items shall be excluded in computing Consolidated Net Income (without

duplication): (i) the net income (or loss) of any Subsidiary that is not a Wholly-Owned Subsidiary of the Borrower, to the pro rata extent of the Equity Interests held by Persons other than the Borrower and its Wholly-Owned Subsidiaries in such Subsidiary, (ii) except for determinations expressly required to be made on a Pro Forma Basis, the net income (or loss) of any Person accrued prior to the date it becomes a Subsidiary or all or substantially all of the property or assets of such Person are acquired by a Subsidiary and (iii) the net income of any Subsidiary to the extent that the declaration or payment of cash dividends or similar cash distributions by such Subsidiary of such net income is not at the time permitted by the operation of the terms of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to such Subsidiary.

“Consolidated Net Tangible Assets” shall mean the aggregate amount of assets of the Borrower and its Subsidiaries determined on a consolidated basis in accordance with U.S. GAAP (less applicable reserves and other properly deductible items) after deducting therefrom (a) all current liabilities (excluding any thereof constituting Funded Debt by reason of being extendible or renewable), (b) all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangibles, all as set forth on the books and records of the Borrower and its Subsidiaries and computed in accordance with U.S. GAAP and (c) minority Equity Interests in any Non-Wholly Owned Subsidiary.

“Consolidated Net Worth” shall mean, as of any date of determination, the Net Worth of the Borrower and its Subsidiaries on such date determined on a consolidated basis; provided that the Warrant Obligation Amount on the relevant date of determination shall be added to Consolidated Net Worth.

“Consolidated Total Capitalization” shall mean, as of any date of determination, the sum of (i) Consolidated Total Indebtedness and (ii) Consolidated Net Worth.

“Consolidated Total Indebtedness” shall mean, at any time, the sum of (without duplication) (i) all Indebtedness of the Borrower and its Subsidiaries (on a consolidated basis) as would be required to be reflected as debt or Capitalized Lease Obligations on the liability side of a consolidated balance sheet of the Borrower and its Subsidiaries in accordance with U.S. GAAP, (ii) all Indebtedness of the Borrower and its Subsidiaries of the type described in clauses (ii), (vii) and (viii) of the definition of “Indebtedness” contained herein and (iii) all Contingent Obligations of the Borrower and its Subsidiaries in respect of Indebtedness of any third Person of the type referred to in preceding clauses (i) and (ii); provided that the amount of Indebtedness in respect of the Interest Rate Protection Agreements and Other Hedging Agreements shall be at any time the unrealized net loss position, if any, of the Borrower and/or its Subsidiaries thereunder on a marked-to-market basis determined no more than one month prior to such time.

“Contingent Obligation” shall mean, as to any Person, any obligation of such Person in respect of Indebtedness of any other Person as a result of such Person being a general partner of such other Person, unless the underlying Indebtedness is expressly made non-recourse as to such general partner, and any obligation of such Person guaranteeing or intended to guarantee any Indebtedness, leases, dividends or other obligations (“primary obligations”) of any other Person (the “primary obligor”) in any manner, whether directly or indirectly, including, without limitation, any obligation of such Person, whether or not contingent, (i) to purchase any such primary obligation or any property constituting direct or indirect security therefor, (ii) to advance or supply funds (x) for the purchase or payment of any such primary obligation or (y) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor or (iii) otherwise to assure or hold harmless the holder of such primary obligation against loss in respect thereof; provided, however, that the term Contingent Obligation shall not include endorsements of instruments for deposit or collection in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount equal to the lesser of (x) the stated or determinable amount of the primary obligation in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof (assuming such Person is required to perform thereunder) as determined by such Person in good faith and (y) the stated amount of such Contingent Obligation.

“Continuing Directors” shall mean the directors of the Borrower on the Closing Date and each other director if such director’s election to, or nomination for the election to, the board of directors of the Borrower is recommended or approved by a majority of then Continuing Directors.

“Credit Parties” shall mean the Borrower and the Subsidiary Guarantors.

“Debt Rating” shall mean the Borrower’s senior unsecured long term debt rating provided by the applicable Rating Agency.

“Default” shall mean any of the events specified in Article IX which with the passage of time, the giving of notice or any other condition, would constitute an Event of Default.

“Defaulting Lender” shall mean any Lender that (i) has failed to fund any portion of the Term Loans required to be funded by it hereunder within two Business Days of the date required to be funded by it hereunder unless such Lender notifies the Administrative Agent and the Borrower in writing that such failure is the result of such Lender’s determination that one or more conditions precedent to funding (each of which conditions precedent, together with any applicable default, shall be specifically identified in such writing) has not been satisfied, (ii) has otherwise failed to pay over to the Administrative Agent or any other Lender any other amount required to be paid by it hereunder within three Business Days of the date when due, unless such amount is the subject of a good faith dispute, (iii) has notified the Borrower, the Administrative Agent or any other Lender in writing that it does not intend to comply with any of its funding obligations under this Agreement or has made a public statement to the effect that it does not intend to comply or has failed to comply with its funding obligations under this Agreement or generally under other agreements in which it commits or is obligated to extend credit, (iv) has become or is insolvent or has become the subject of a bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee or custodian appointed for it, or has taken any action in furtherance of, or indicating its consent to, approval of or acquiescence in any such proceeding or appointment or (v) has become the subject of a Bail-In Action; provided, that a Lender shall not qualify as a Defaulting Lender solely as a result of the acquisition or maintenance of an ownership interest in such Lender or its parent company, or of the exercise of control over such Lender or any Person controlling such Lender, by a Governmental Authority or instrumentality thereof.

“Disputes” shall mean any dispute, claim or controversy arising out of, connected with or relating to this Agreement or any other Loan Document, between or among parties hereto and to the other Loan Documents.

“Dividend” shall mean, with respect to any Person, that such Person has declared or paid a dividend, distribution or returned any equity capital in cash to its stockholders, partners or members or authorized or made any other distribution, payment or delivery of property (other than common Equity Interests, or Equity Interests of the same class as the Equity Interests in respect of which such dividend or other distribution was paid, of such Person) or cash to its stockholders, partners or members in their capacity as such, or redeemed, retired, purchased or otherwise acquired, directly or indirectly, for a consideration (other than common Equity Interests, or Equity Interests of the same class as the Equity Interest in respect of which such dividend or other distribution was paid, of such Person) any shares of any class of its capital stock or any other Equity Interests outstanding on or after the Closing Date (or any options or warrants issued by such Person with respect to its capital stock or other Equity Interests), or set aside any funds for any of the foregoing purposes, or shall have permitted any of its Subsidiaries to purchase or otherwise acquire for a consideration any shares of any class of the capital stock or any other Equity Interests of such Person outstanding on or after the Closing Date (or any options or warrants issued by such Person with respect to its capital stock or other Equity Interests). For the avoidance of doubt, the purchase by the Borrower of its common Equity Interests owned by employees of the Borrower or any of its Subsidiaries in connection with stock option, stock compensation or similar plans, the proceeds of which purchase are used to pay taxes, shall not constitute “Dividends”.

“Dollars” or “\$” shall mean, unless otherwise qualified, dollars in lawful currency of the United States.

“Domestic Subsidiary” shall mean, as to any Person, any Subsidiary of such Person incorporated or organized in the United States or any State or territory thereof other than a FSHCO.

“EEA Financial Institution” shall mean (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial

institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

“EEA Member Country” shall mean any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

“EEA Resolution Authority” shall mean any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

“Electronic Signature” means an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a Person with the intent to sign, authenticate or accept such contract or record.

“Environmental Claims” shall mean any and all administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, written notices of non-compliance or violation, investigations or proceedings relating in any way to (i) any violation (or alleged violation) by the Borrower or any of its Subsidiaries of any Environmental Law; (ii) any permit issued to the Borrower or any of its Subsidiaries under any such law; or (iii) otherwise arising under Environmental Law, (hereafter “Claims”), including, without limitation, (a) any and all Claims by governmental or regulatory authorities for enforcement, cleanup, removal, response, remedial or other actions or damages pursuant to any applicable Environmental Law, and (b) any and all Claims by any third party seeking damages, contribution, indemnification, cost recovery, compensation or injunctive relief resulting from Hazardous Materials or arising from alleged injury or threat of injury to health, safety or the environment.

“Environmental Law” shall mean any federal, national, provincial, state or local policy having the force and effect of law, statute, law, rule, regulation, ordinance, code or rule of common law now or hereafter in effect and in each case as amended, and any judicial or administrative interpretation thereof, including any legally-binding judicial or administrative order, consent, decree or judgment (for purposes of this definition (collectively, “Laws”), relating to pollution or protection of the environment, or Hazardous Materials or health and safety to the extent such health and safety issues arise under the Occupational Safety and Health Act of 1970, as amended, or any such similar Laws.

“Equity Interests” of any Person shall mean any and all shares, interests, rights to purchase, warrants, options, participation or other equivalents of or interest in (however designated) equity of such Person, including any preferred stock, any limited or general partnership interest, any membership interest in a cooperative society and any limited liability company membership interest.

“ERISA” shall mean the Employee Retirement Income Security Act of 1974, as amended from time to time, and the rules and regulations promulgated thereunder from time to time.

“ERISA Affiliate” shall mean any trade or business (whether or not incorporated) that is treated as a single employer together with the Borrower or any of its Subsidiaries under Section 414 of the Code and for purposes of potential liability under Section 302 of ERISA and the Lien created under Section 303(k) of ERISA, under Section 414(m) or (o) of the Code.

“EU Bail-In Legislation Schedule” shall mean the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time.

“Event of Default” shall mean any of the events specified in Article IX.

“Exchange Act” shall mean the Securities Exchange Act of 1934, as amended.

“Excluded Taxes” shall mean any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office

located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Term Loan or Term Loan Commitment pursuant to a law in effect on the date on which (i) such Lender acquires such interest in the Term Loan or Term Loan Commitment (other than pursuant to an assignment request by the Borrower under Section 4.13(b)) or (ii) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 4.12, amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender became a party hereto or to such Lender immediately before it changed its lending office, (c) Taxes attributable to such Recipient's failure to comply with Section 4.12(e) and (d) any U.S. federal withholding Taxes imposed under FATCA.

“Existing Indebtedness Agreements” shall mean all agreements evidencing or relating to any Scheduled Existing Indebtedness of the Borrower or any of its Subsidiaries.

“Extensions of Credit” shall mean, as to any Lender at any time, the making of any Term Loan or the aggregate principal amount of the portion of the Term Loan made by such Lender then outstanding, as the context requires.

“Fair Market Value” shall mean, with respect to any asset, the price at which a willing buyer, not an Affiliate of the seller, and a willing seller who does not have to sell, would agree to purchase and sell such asset, as determined in good faith by the board of directors or other governing body or senior officer of such seller.

“FATCA” shall mean Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code and any intergovernmental agreements with respect thereto.

“Federal Funds Rate” shall mean, for any day, the rate calculated by the NYFRB based on such day's federal funds transactions by depository institutions (as determined in such manner as the NYFRB shall set forth on its public website from time to time) and published on the next succeeding Business Day by the NYFRB as the federal funds effective rate; provided that if the Federal Funds Effective Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

“Fee Letters” shall mean, collectively, the separate fee letter agreements dated as of even date herewith, among the Borrower, the applicable Joint Lead Arranger and the Administrative Agent, as applicable.

“Fiscal Quarter” shall mean for any Fiscal Year of the Borrower and its Subsidiaries, the fiscal quarters ending on each of March 31, June 30, September 30 and December 31.

“Fiscal Year” shall mean the fiscal year of the Borrower ending on December 31 of each calendar year. For purposes of this Agreement, any particular Fiscal Year shall be designated by reference to the calendar year in which such Fiscal Year ends (e.g., Fiscal Year 2017 shall be the fiscal year of the Borrower ended December 31, 2017).

“Fitch” shall mean Fitch Ratings, Inc., and any successor to its ratings agency business.

“Foreign Lender” shall mean any Lender that is organized under the laws of a jurisdiction other than that in which the Borrower is resident for tax purposes. For purposes of this definition, the United States, each State thereof and the District of Columbia shall be deemed to constitute a single jurisdiction.

“Foreign Subsidiary” shall mean any Subsidiary that is not a Domestic Subsidiary.

“FSHCO” shall mean any domestic Subsidiary that either (i) has no material liabilities and owns no material assets other than Equity Investments in one or more CFCs and immaterial assets incidental or related thereto, or (ii) is wholly owned for purposes of the Code by one or more CFCs.

“Fund” shall mean any Person (other than a natural person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its business.

“Funded Debt” shall mean all Indebtedness, whether or not evidenced by a bond, debenture, note or similar instrument or agreement, of any Person, for the repayment of borrowed money having a maturity of more than 12 months from the date of its creation or having a maturity of less than 12 months from the date of its creation but by its terms being renewable or extendible beyond 12 months from such date at the option of such Person. For the purpose of determining “Funded Debt” of any Person, there shall be excluded any particular Indebtedness if, on or prior to the maturity thereof, there shall have been deposited with the proper depository in trust the necessary funds for the payment, redemption or satisfaction of such Indebtedness.

“Governmental Authority” shall mean any federal (including the federal governments of the United States and Canada), national, provincial, state or local government (and any political subdivision thereof), and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

“Guaranteed Creditors” shall mean collectively, the Lenders, the Administrative Agent, any other holder from time to time of any of the Obligations and, in each case, their respective successors and permitted assigns.

“Hazardous Materials” shall mean (i) any petrochemical or petroleum products, radioactive materials, asbestos in any form that is or could become friable, urea formaldehyde foam insulation, transformers or other equipment that contain dielectric fluid containing levels of polychlorinated biphenyls, and radon gas; and (ii) any chemicals, materials, substances or mixtures regulated under Environmental Laws, including, without limitation, those defined as or included in the definition of “hazardous substances”, “hazardous wastes”, “hazardous materials”, “extremely hazardous substances”, “toxic substances”, “toxic pollutants”, “contaminants” or “pollutants”, or words of similar meaning and regulatory effect.

“Immaterial Subsidiaries” shall mean Wholly-Owned Domestic Subsidiaries of the Borrower which together account for less than five percent (5%) of each of Consolidated Net Tangible Assets and Consolidated Net Income of the Borrower and its Subsidiaries (with Consolidated Net Income being determined by the Borrower in good faith (and without regard to clauses (ii) and (iii) of the proviso of the definition thereof to the extent relating to the Consolidated Net Income attributable to any Wholly-Owned Domestic Subsidiary that is not a Subsidiary Guarantor) on a pro forma basis in the case of Subsidiaries acquired or created after the first day of the respective Test Period, and Subsidiaries which have received significant transfers of assets after the first day of the respective Test Period), in each case determined as of the end of, or for, as the case may be, the Test Period most recently ended for which financial statements have been or are required to have been delivered pursuant to Section 7.1(a) or (b), as applicable.

“Impacted Interest Period” shall have the meaning assigned to such term in the definition of “LIBOR”.

“Indebtedness” shall mean, as to any Person, without duplication, (i) all indebtedness of such Person for borrowed money or for the deferred purchase price of property or services, (ii) the maximum amount available to be drawn or paid under all letters of credit, bankers’ acceptances, bank guaranties, surety and appeal bonds and similar obligations issued for the account of such Person and all unpaid drawings and unreimbursed payments in respect of such letters of credit, bankers’ acceptances, bank guaranties, surety and appeal bonds and similar obligations, (iii) all indebtedness of the types described in clause (i), (ii), (iv), (v), (vi), (vii) or (viii) of this definition secured by any Lien on any property owned by such Person, whether or not such indebtedness has been assumed by such Person (provided that, if the Person has not assumed or otherwise become liable in respect of such indebtedness, such indebtedness shall be deemed to be in an amount equal to the lesser of (1) the Fair Market Value of the property to which such Lien relates as determined in good faith by such Person or (2) the amount of such Indebtedness), (iv) the aggregate amount of all Capitalized Lease Obligations of such Person, (v) all obligations of such Person to pay a specified purchase price for goods or services, whether or not delivered or accepted, i.e., take-or-pay and similar obligations (other than ordinary course trade accounts payable not overdue by more than 60 days), (vi) all Contingent Obligations of such Person, (vii) all obligations under any Interest Rate Protection Agreement, any Other Hedging Agreement or under any similar type of agreement determined on a marked-to-market basis and (viii) all Off-Balance Sheet Liabilities of such Person.

Notwithstanding the foregoing, Indebtedness shall not include the Warrant Obligation Amount, trade payables, accrued expenses, operating leases (which in no event shall constitute Capital Leases) and deferred tax and other credits incurred by any Person in accordance with customary practices and in the ordinary course of business of such Person.

“Indemnified Taxes” shall mean Taxes and Other Taxes other than Excluded Taxes.

“Indemnitee” shall have the meaning provided in Section 11.3(b).

“Intercompany Loan” shall have the meaning provided in Section 8.5(vii).

“Interest Expense Coverage Ratio” shall mean, for any period, the ratio of (i) Consolidated EBITDA for such period to (ii) Consolidated Interest Expense for such period.

“Interest Period” shall have the meaning provided in Section 4.1(b).

“Interest Rate Protection Agreement” shall mean any interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate hedging agreement, interest rate floor agreement or other similar agreement or arrangement.

“Interpolated Rate” shall mean, at any time, for any Interest Period, the rate per annum determined by the Administrative Agent (which determination shall be conclusive and binding absent manifest error) to be equal to the rate that results from interpolating on a linear basis between: (a) the LIBOR Screen Rate for the longest period (for which the LIBOR Screen Rate is available for the applicable currency) that is shorter than the Impacted Interest Period and (b) the LIBOR Screen Rate for the shortest period (for which the LIBOR Screen Rate is available for the applicable currency) that exceeds the Impacted Interest Period, in each case, at such time; provided that if any Interpolated Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Investment” shall have the meaning provided in the preamble to Section 8.5.

“Joint Lead Arrangers” shall mean the collective reference to JPMorgan Chase Bank, N.A., Citigroup Global Markets Inc. and Wells Fargo Securities, LLC, each in its capacity as joint lead arranger and joint bookrunner, and each of their successors.

“JPMorgan” shall mean JPMorgan Chase Bank, N.A., a national banking association, and its successors.

“Leasehold” shall mean, with respect to any Person, all of the right, title and interest of such Person as lessee or licensee in, to and under leases or licenses of land, improvements and/or fixtures.

“Lender” shall have the meaning provided in the introductory paragraph hereof.

“Lending Office” shall mean, with respect to any Lender, the office of such Lender maintaining such Lender’s Extensions of Credit.

“LIBOR” shall mean, with respect to any LIBOR Rate Loan for any applicable Interest Period, the London interbank offered rate as administered by ICE Benchmark Administration (or any other Person that takes over the administration of such rate) for Dollars for a period equal in length to such Interest Period as displayed on pages LIBOR01 or LIBOR02 of the Reuters screen that displays such rate or, in the event such rate does not appear on a Reuters page or screen, on any successor or substitute page on such screen that displays such rate, or on the appropriate page of such other information service that publishes such rate as shall be selected by the Administrative Agent from time to time in its reasonable discretion (in each case the “LIBOR Screen Rate”) at approximately 11:00 a.m., London time, two (2) Business Days prior to the commencement of such Interest Period; provided that, if the LIBOR Screen Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement; provided, further, that if a LIBOR Screen Rate shall not be available at such time for such Interest Period (the “Impacted Interest Period”), then LIBOR for such Interest Period shall be the Interpolated Rate; provided, that, if any Interpolated Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement. It is understood and agreed that (i) each

calculation of LIBOR shall be conclusive and binding for all purposes, absent manifest error and (ii) all of the terms and conditions of this definition of “LIBOR” shall be subject to [Section 4.8\(a\)](#).

“[LIBOR Rate](#)” shall mean a rate per annum (rounded upwards, if necessary, to the next higher 1/100th of 1%) equal to (a) LIBOR for such Interest Period multiplied by (b) the Statutory Reserve Rate.

“[LIBOR Rate Loan](#)” shall mean any Loan (other than a Base Rate Loan) bearing interest at a rate based upon the LIBOR Rate as provided in [Section 4.1\(a\)](#).

“[LIBOR Screen Rate](#)” shall have the meaning provided in the definition of “LIBOR”.

“[Lien](#)” shall mean any mortgage, pledge, hypothecation, assignment, deposit arrangement, security interest, encumbrance, lien (statutory or other), charge, preference, priority or other security agreement or arrangement of any kind or nature whatsoever (including any agreement to give any of the foregoing). For purposes of this Agreement, the Borrower or its respective Subsidiaries shall be deemed to own, subject to a Lien, any asset which it has acquired or holds subject to the interest of a vendor or lessor under any conditional sale agreement, capital lease or other similar title retention agreement relating to such asset, and sales of accounts receivable with recourse to the Borrower or any of its Subsidiaries shall be deemed to create a Lien on accounts receivable of the Borrower or the respective Subsidiary.

“[Loan Documents](#)” shall mean, collectively, this Agreement, each Term Loan Note, the Subsidiary Guaranty Agreement, each amendment of the foregoing, and each other document, instrument, certificate and agreement executed and delivered by the Credit Parties or any of their respective Subsidiaries in favor of or provided to the Administrative Agent or any Guaranteed Creditor pursuant to any of the foregoing, all as may be amended, restated, supplemented or otherwise modified from time to time.

“[Margin Stock](#)” shall have the meaning provided in Regulation U.

“[Material Adverse Effect](#)” shall mean (i) a material adverse effect on the business, assets, operations, properties, liabilities or financial condition of the Borrower and its Subsidiaries taken as a whole, or (ii) a material adverse effect (x) on the rights or remedies of the Lenders or the Administrative Agent hereunder or under the other Loan Documents, taken as a whole or (y) on the ability of the Credit Parties to perform their obligations to the Lenders or the Administrative Agent hereunder or under the other Loan Documents, taken as a whole.

“[Material Subsidiary](#)” shall mean, at any time, each Wholly-Owned Domestic Subsidiary of the Borrower that, taken together with all other Wholly-Owned Domestic Subsidiaries that are not Subsidiary Guarantors, would not be an Immaterial Subsidiary; provided that, if, as of any date of determination, all Wholly-Owned Domestic Subsidiaries of the Borrower that are not Subsidiary Guarantors fail to constitute Immaterial Subsidiaries (as determined in accordance with the requirements of the definition thereof and the relevant provisions of [Section 7.12](#)), then the Borrower shall determine which Wholly-Owned Domestic Subsidiary (or Wholly-Owned Domestic Subsidiaries) shall constitute Material Subsidiaries for purposes of compliance with the requirements of [Section 7.12](#).

“[Moody's](#)” shall mean Moody's Investors Service, Inc. and any successor thereto.

“[Multiemployer Plan](#)” shall mean (i) any plan, as defined in Section 4001(a)(3) of ERISA, which is maintained or contributed to (or to which there is an obligation to contribute to) by the Borrower or an ERISA Affiliate and that is subject to Title IV of ERISA, and (ii) each such plan for the five year period immediately following the latest date on which the Borrower or an ERISA Affiliate maintained, contributed to or had an obligation to contribute to such plan.

“[Net Sale Proceeds](#)” shall mean for any sale or other disposition of assets, the gross cash proceeds (including any cash received by way of deferred payment pursuant to a promissory note, receivable or otherwise, but only as and when received) received from such sale or other disposition of assets, net of (i) reasonable transaction costs (including, without limitation, any underwriting, brokerage or other customary selling commissions, reasonable legal, advisory and other fees and expenses (including title and recording expenses), associated therewith and sales, VAT and transfer taxes arising therefrom), (ii) payments of unassumed liabilities relating to the assets sold or otherwise disposed of at the time

of, or within 30 days after, the date of such sale or other disposition, (iii) the amount of such gross cash proceeds required to be used to permanently repay any Indebtedness (other than Indebtedness of the Lenders pursuant to this Agreement) which is secured by the respective assets which were sold or otherwise disposed of, and (iv) the estimated net marginal increase in income taxes which will be payable by the Borrower's consolidated group or any Subsidiary of the Borrower with respect to the Fiscal Year in which the sale or other disposition occurs as a result of such sale or other disposition; provided, however, that such gross proceeds shall not include any portion of such gross cash proceeds which the Borrower determines in good faith should be reserved for post-closing adjustments, it being understood and agreed that on the day that all such post-closing adjustments have been determined (which shall not be later than six months following the date of the respective asset sale), the amount (if any) by which the reserved amount in respect of such sale or disposition exceeds the actual post-closing adjustments payable by the Borrower or any of its Subsidiaries shall constitute Net Sale Proceeds on such date received by the Borrower and/or any of its Subsidiaries from such sale or other disposition.

“Net Worth” shall mean, as to any Person, the sum of its capital stock, capital in excess of par or stated value of shares of its capital stock, retained earnings and any other account which, in accordance with U.S. GAAP, constitutes stockholders equity, excluding any treasury stock.

“Non-Consenting Lender” shall mean any Lender that has not consented to any proposed amendment, modification, waiver or termination of any Loan Document which, pursuant to Section 11.2, requires the consent of all Lenders or all affected Lenders and with respect to which the Required Lenders shall have granted their consent.

“Non-Guarantor Subsidiaries” shall mean, at any time, the Subsidiaries of the Borrower that are not at such time Subsidiary Guarantors.

“Non-U.S. Plan” shall mean any plan, fund or other similar program that (i) is established or maintained outside the United States of America by the Borrower or any of its Subsidiaries primarily for the benefit of employees of the Borrower or one or more of its Subsidiaries residing outside the United States of America, which plan, fund or other similar program provides or results in, retirement income, a deferral of income in contemplation of retirement or payments to be made upon termination of employment, and (ii) is not subject to ERISA or the Code.

“Non-Wholly Owned Subsidiary” shall mean, as to any Person, each Subsidiary of such Person which is not a Wholly-Owned Subsidiary of such Person.

“Notice of Account Designation” shall have the meaning provided in Section 3.2.

“Notice of Borrowing” shall have the meaning provided in Section 3.2.

“Notice of Conversion/Continuation” shall have the meaning provided in Section 4.2.

“Notice of Prepayment” shall have the meaning provided in Section 3.4.

“NYFRB” shall mean the Federal Reserve Bank of New York.

“NYFRB Rate” shall mean, for any day, the greater of (a) the Federal Funds Effective Rate in effect on such day and (b) the Overnight Bank Funding Rate in effect on such day (or for any day that is not a Business Day, for the immediately preceding Business Day); provided that if none of such rates are published for any day that is a Business Day, the term “NYFRB Rate” means the rate for a federal funds transaction quoted at 11:00 a.m., New York City time, on such day received by the Administrative Agent from a Federal funds broker of recognized standing selected by it; provided, further, that if any of the aforesaid rates shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Obligations” shall mean, in each case, whether now in existence or hereafter arising: (i) the principal of and interest on (including interest accruing after the filing of any bankruptcy or similar petition) the Term Loans and (ii) all other fees and commissions (including reasonable and documented attorneys' fees), charges, indebtedness, loans, liabilities, financial accommodations, obligations, covenants and duties owing by the Credit Parties or any of their

respective Subsidiaries to the Guaranteed Creditors or the Administrative Agent, in each case under any Loan Document, with respect to the Term Loan, of every kind, nature and description, direct or indirect, absolute or contingent, due or to become due, contractual or tortious, liquidated or unliquidated, and whether or not evidenced by any note.

“OFAC” shall mean the U.S. Department of the Treasury’s Office of Foreign Assets Control.

“Off-Balance Sheet Liabilities” shall mean, with respect to any Person (i) any repurchase obligation or liability of such Person with respect to accounts or notes receivable sold by such Person or (ii) any obligation under a Synthetic Lease; provided that, lease payments with respect to leases of precious metal alloy (and obligations to return the precious metal alloy) owing by the Borrower and any of its Subsidiaries in connection with the ongoing business of such Person (or guarantees thereof) to the owners of such precious metal alloy and other Persons providing financing to such owners in respect of such precious metal alloy (in each case other than the Borrower and its Subsidiaries) shall in no event constitute “Off-Balance Sheet Liabilities”.

“Officer’s Compliance Certificate” shall mean a certificate of the chief financial officer or the treasurer of the Borrower substantially in the form attached as Exhibit F.

“Other Connection Taxes” shall mean, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

“Other Hedging Agreements” shall mean any foreign exchange contracts, currency swap agreements, commodity hedging agreements or other similar agreements or arrangements designed to protect against fluctuations in currency values or the prices of commodities used in the business of the Borrower and its Subsidiaries.

“Other Taxes” shall mean all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 4.13(b)).

“Overnight Bank Funding Rate” shall mean, for any day, the rate comprised of both overnight federal funds and overnight eurodollar borrowings by U.S.-managed banking offices of depository institutions, as such composite rate shall be determined by the NYFRB as set forth on its public website from time to time, and published on the next succeeding Business Day by the NYFRB as an overnight bank funding rate (from and after such date as the NYFRB shall commence to publish such composite rate).

“Paroc Acquisition” shall mean the acquisition by the Borrower or any of its subsidiaries of Parry1 Holding AB and, as appropriate, its subsidiaries.

“Participant” shall have the meaning provided in Section 11.9(d).

“Participant Register” shall have the meaning provided in Section 11.9(g).

“PBGC” shall mean the Pension Benefit Guaranty Corporation referred to and defined in ERISA or any successor thereto.

“Permitted Acquisition” shall have the meaning provided in Section 8.2(ix).

“Permitted Liens” shall have the meaning provided in Section 8.1.

“Person” shall mean any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, governmental authority or other entity.

“Plan” shall mean an “employee benefit plan” (as defined in Section 3(3) of ERISA) subject to Title IV of ERISA that is or, within the preceding five years, has been established or maintained, or to which contributions are or, within the preceding five years, have been made or required to be made, by the Borrower or any ERISA Affiliate or with respect to which the Borrower or any ERISA Affiliate may have any liability.

“Preferred Equity” shall mean, as applied to the Equity Interests of any Person, Equity Interests of such Person (other than common stock of such Person) of any class or classes (however designed) that ranks prior, as to the payment of dividends or as to the distribution of assets upon any voluntary or involuntary liquidation, dissolution or winding up of such Person, to Equity Interests of any other class of such Person.

“Prime Rate” shall mean, at any time, the rate of interest per annum publicly announced from time to time by JPMorgan as its prime rate. Each change in the Prime Rate shall be effective as of the opening of business on the day such change in such prime rate occurs. The parties hereto acknowledge that the rate announced publicly by JPMorgan as its prime rate is an index or base rate and shall not necessarily be its lowest or best rate charged to its customers or other banks.

“Pro Forma Basis” shall mean, in connection with any calculation of compliance with any financial covenant or financial term, the calculation thereof after giving effect on a pro forma basis to (x) the incurrence of any Indebtedness (other than revolving Indebtedness, except to the extent same is incurred to refinance other outstanding Indebtedness or to finance a Permitted Acquisition) after the first day of the relevant Test Period, as if such Indebtedness had been incurred (and the proceeds thereof applied) on the first day of such Test Period, (y) the permanent repayment of any Indebtedness (other than revolving Indebtedness, except to the extent accompanied by a corresponding permanent commitment reduction) after the first day of the relevant Test Period, as if such Indebtedness had been retired or repaid on the first day of such Test Period, and (z) any Permitted Acquisition or any Significant Asset Sale then being consummated as well as any other Permitted Acquisition or any other Significant Asset Sale if consummated after the first day of the relevant Test Period, and on or prior to the date of the respective Permitted Acquisition or Significant Asset Sale, as the case may be, then being effected, with the following rules to apply in connection therewith:

(i) all Indebtedness (x) (other than revolving Indebtedness, except to the extent same is incurred to refinance other outstanding Indebtedness or to finance Permitted Acquisitions) incurred or issued after the first day of the relevant Test Period (whether incurred to finance a Permitted Acquisition, to refinance Indebtedness or otherwise) shall be deemed to have been incurred or issued (and the proceeds thereof applied) on the first day of such Test Period, and remain outstanding through the date of determination and (y) (other than revolving Indebtedness, except to the extent accompanied by a corresponding permanent commitment reduction) permanently retired or redeemed after the first day of the relevant Test Period, shall be deemed to have been retired or redeemed on the first day of such Test Period and remain retired through the date of determination;

(ii) all Indebtedness assumed to be outstanding pursuant to preceding clause (i) shall be deemed to have borne interest at (x) the rate applicable thereto, in the case of fixed rate indebtedness, or (y) the rates which would have been applicable thereto during the respective period when same was deemed outstanding, in the case of floating rate Indebtedness (although interest expense with respect to any Indebtedness for periods while same was actually outstanding during the respective period shall be calculated using the actual rates applicable thereto while same was actually outstanding); provided that all Indebtedness (whether actually outstanding or deemed outstanding) bearing interest at a floating rate of interest shall be tested on the basis of the rates applicable at the time the determination is made pursuant to said provisions; and

(iii) in making any determination of Consolidated EBITDA on a Pro Forma Basis, proforma effect shall be given to any Permitted Acquisition or any Significant Asset Sale if effected during the respective Test Period as if same had occurred on the first day of the respective Test Period taking into account, in the case of any Permitted Acquisition, factually supportable and identifiable cost savings and expenses which would otherwise be accounted for as an adjustment pursuant to Article XI of Regulation S-X under the Securities Act, as if such cost savings or expenses were realized on the first day of the respective period but without taking into account any pro forma cost savings and expenses.

“ Property ” shall mean, with respect to any Person, any and all property, whether real, personal, tangible, intangible or mixed, of such Person, or other assets owned, leased, or operated by such Person.

“ Qualified Preferred Stock ” shall mean any Preferred Equity of the Borrower, the express terms of which shall provide that dividends thereon shall not be required to be paid at any time (and to the extent) that such payment would be prohibited by the terms of this Agreement or any other agreement of the Borrower or any of its Subsidiaries relating to outstanding indebtedness and which, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable), or upon the happening of any event (including any change of control event), cannot mature (excluding any maturity as the result of an optional redemption by the issuer thereof) and is not mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, and is not redeemable, or required to be repurchased, at the sole option of the holder thereof (including, without limitation, upon the occurrence of an change of control event), in whole or in part, on or prior to one year following the Term Loan Maturity Date then in effect.

“ Rating Agency ” shall mean S&P (for so long as no Rating Agency Disruption has occurred with respect thereto), Moody’s (for so long as no Rating Agency Disruption has occurred with respect thereto) and Fitch (for so long as no Rating Agency Disruption has occurred with respect thereto) and, following a Rating Agency Disruption, an Alternate Rating Agency named pursuant hereto, and “Rating Agencies” shall mean three of the foregoing.

“ Rating Agency Disruption ” shall mean any event or occurrence resulting in the failure of any current Rating Agency to provide debt ratings generally to corporate borrowers.

“ Real Property ” of any Person shall mean all of the right, title and interest of such Person in and to land, improvements and fixtures, including Leaseholds.

“ Recipient ” shall mean (a) the Administrative Agent and (b) any Lender.

“ Register ” shall have the meaning provided in Section 11.9(c).

“ Related Parties ” shall mean, with respect to any Person, such Person’s Affiliates and the partners, directors, officers, employees, agents and advisors of such Person and of such Person’s Affiliates.

“ Release ” shall have the meaning set forth in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (“ CERCLA ”) (42 U.S.C. Section 9601 et seq.).

“ Reportable Event ” shall mean an event described in Section 4043(c) of ERISA with respect to a Plan that is subject to Title IV of ERISA other than those events as to which the 30-day notice period under ERISA has been waived under subsection .22, .23, .25, .27, or .28 of PBGC Regulation Section 4043.

“ Required Lenders ” shall mean, at any date, any combination of Lenders holding more than fifty percent (50%) of the aggregate amount of the Term Loan Commitment or, if the Term Loan Commitment has been terminated, of the outstanding principal amount of the Term Loan; provided that the Term Loan Commitment of, and the portion of the Term Loan, as applicable, held by, any Defaulting Lender shall be excluded for purposes of making a determination of Required Lenders.

“ Responsible Officer ” shall mean, as to any Person, the chief executive officer, president, chief financial officer, treasurer, assistant treasurer, secretary or assistant secretary of such Person or any other officer of such Person reasonably acceptable to the Administrative Agent. Any document delivered hereunder or under any other Loan Document that is signed by a Responsible Officer of a Person shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Person and such Responsible Officer shall be conclusively presumed to have acted on behalf of such Person.

“ Returns ” shall have the meaning provided in Section 6.9.

“Revolving Credit Agreement” shall mean the Amended and Restated Credit Agreement, dated as of November 13, 2015, as amended by the First Amendment thereto dated as of March 22, 2016, as further amended by the Second Amendment thereto dated as of May 27, 2016, among the Borrower, certain subsidiaries of the Borrower party thereto as borrowers, the lenders from time to time party thereto and Wells Fargo Bank, National Association, as administrative agent, as amended, restated, supplemented, modified, replaced or refinanced from time to time.

“S&P” shall mean Standard & Poor’s Financial Services LLC, and any successor to its ratings agency business.

“Sanctioned Country” shall mean a country, region or territory which is itself the subject or target of any Sanctions Laws including, those countries subject to a sanctions program identified on the list maintained by OFAC and currently available at <http://www.treas.gov/offices/enforcement/ofac/programs>, or as otherwise published from time to time, for which the sanctions program takes the form of a comprehensive trade embargo, including as of the Closing Date Crimea, Cuba, Iran, North Korea, Sudan and Syria.

“Sanctioned Person” shall mean, any of the following currently or in the future: (i) an entity, vessel, or individual named on the list of Specially Designated Nationals or Blocked Persons maintained by OFAC currently available at <http://www.treasury.gov/resource-center/sanctions/SDNList/Pages/default.aspx> or on the consolidated list of persons, groups, and entities subject to EU financial sanctions currently available at http://eeas.europa.eu/cfsp/sanctions/consolist_en.htm; or (ii) anyone more than 50-percent owned by an entity or individual described in (i) above; or (iii) (A) an agency or instrumentality of, or an entity owned or controlled by, the government of a Sanctioned Country, (B) an entity located in a Sanctioned Country, or (C) an individual who is a citizen or resident of, or located in, a Sanctioned Country; or (iv) an entity or individual engaged in activities sanctionable under CISADA (as defined under Sanctions Laws), ITRA (as defined under Sanctions Laws), IFCA (as defined under Sanctions Laws below), or any other Sanctions Laws as amended from time to time.

“Sanctions Laws” shall mean the laws, regulations, and rules promulgated or administered by OFAC to implement U.S. sanctions programs, including any enabling legislation or Executive Order related thereto, as amended from time to time; the US Comprehensive Iran Sanctions, Accountability, and Divestment Act and the regulations and rules promulgated thereunder (“CISADA”), as amended from time to time; the US Iran Threat Reduction and Syria Human Rights Act and the regulations and rules promulgated thereunder (“ITRA”), as amended from time to time; the US Iran Freedom and Counter-Proliferation Act and the regulations and rules promulgated thereunder (“IFCA”); the sanctions and other restrictive measures applied by the European Union in pursuit of the Common Foreign and Security Policy objectives set out in the Treaty on European Union; and any similar sanctions laws as may be enacted from time to time in the future by the U.S., Canada, the European Union (and its Member States), or the Security Council or any other legislative body of the United Nations; and any corresponding laws of jurisdictions in which the Borrower or any of its Affiliates operates or in which the proceeds of any Term Loan will be used or from which funds used to repay any Obligation will be derived.

“Scheduled Existing Indebtedness” shall mean the Indebtedness listed on Schedule 6.18 on the Closing Date.

“SEC” shall mean the Securities and Exchange Commission, or any Governmental Authority succeeding to any of its principal functions.

“Senior Notes Documents” shall mean, collectively, (i) that certain Indenture dated as of June 2, 2009 (and each supplemental indenture thereto) by and among the Borrower, certain of the Borrower’s subsidiaries and Wells Fargo Bank, National Association, as trustee pursuant to which senior notes were issued by the Borrower and each other agreement, document or instrument relating to the issuance of such senior notes, as the same may be amended, restated, modified and/or supplemented from time to time in accordance with the terms hereof and thereof, and (ii) that certain Indenture dated as of October 31, 2006 (and each supplemental indenture thereto) by and among the Borrower, each of the guarantors named therein and Wells Fargo Bank, National Association, as trustee pursuant to which senior notes were issued by the Borrower and each other agreement, document or instrument relating to the issuance of such senior notes, as the same may be amended, restated, modified and/or supplemented from time to time in accordance with the terms hereof and thereof.

“Significant Asset Sale” shall mean each Asset Sale which generates Net Sale Proceeds of at least \$100,000,000.

“SPV” shall have the meaning provided in the definition of Asset Securitization.

“Standard Securitization Undertakings” shall mean, with respect to an Asset Securitization, representations, warranties, covenants and indemnities entered into by the Borrower or any Subsidiary thereof in connection with such Asset Securitization, which are reasonably customary in asset securitizations for the types of assets subject to the respective Asset Securitization.

“Statutory Reserve Rate” shall mean a fraction (expressed as a decimal), the numerator of which is the number one and the denominator of which is the number one minus the aggregate of the maximum reserve percentages (including any marginal, special, emergency or supplemental reserves) expressed as a decimal established by the Board to which the Administrative Agent is subject for eurocurrency funding (currently referred to as “Eurocurrency Liabilities” in Regulation D of the Board). Such reserve percentages shall include those imposed pursuant to such Regulation D of the Board. LIBOR Rate Loans shall be deemed to constitute eurocurrency funding and to be subject to such reserve requirements without benefit of or credit for proration, exemptions or offsets that may be available from time to time to any Lender under such Regulation D of the Board or any comparable regulation. The Statutory Reserve Rate shall be adjusted automatically on and as of the effective date of any change in any reserve percentage.

“Subsidiary” shall mean, with respect to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock of each class or other interests having ordinary voting power (other than stock or other interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such entity are at the time owned, or management of which is otherwise controlled: (a) by such Person, (b) by one or more Subsidiaries of such Person or (c) by such Person and one or more Subsidiaries of such Person.

“Subsidiary Guarantor” shall mean each Subsidiary of the Borrower which has executed and delivered the Subsidiary Guaranty Agreement, unless and until such time as the respective Subsidiary is released from all of its obligations under the Subsidiary Guaranty Agreement in accordance with the terms and provisions thereof.

“Subsidiary Guaranty Agreement” shall mean the unconditional guaranty agreement of even date herewith executed by the Subsidiary Guarantors in favor of the Administrative Agent, for the ratable benefit of the Guaranteed Creditors, substantially in the form attached as Exhibit H, as amended, restated, supplemented or otherwise modified from time to time.

“Synthetic Lease” shall mean a lease transaction under which the parties intend that (i) the lease will be treated as an “operating lease” by the lessee and for financial reporting purposes but (ii) the lessee will be entitled to various tax and other benefits ordinarily available to owners (as opposed to lessees) of like property.

“Taxes” shall mean all present or future taxes, levies, imposts, duties, deductions, withholdings, assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“Term Loan” shall mean a term loan made, or to be made, to the Borrower pursuant to Section 3.1 or all such term loans collectively, as the context requires.

“Term Loan Amount” shall mean the aggregate principal amount of the Term Loan made by the Lenders on the Term Loan Funding Date.

“Term Loan Commitment” shall mean (i) as to any Lender, the obligation of such Lender to make a portion of the Term Loan to the account of the Borrower hereunder pursuant to Section 3.1 on the Term Loan Funding Date in the principal amount set forth opposite such Lender’s name on Schedule 1.1, or (ii) as to all Lenders, the aggregate of the commitments of all such Lenders to make their respective portion of the Term Loan pursuant to Section 3.1. The aggregate Term Loan Commitment of the Lenders on the Closing Date shall be \$600,000,000.

“Term Loan Facility” shall mean the term loan facility established pursuant to Article III.

“Term Loan Funding Date” shall mean the date of the funding of the Term Loan, which date shall occur after the Closing Date but not later than April 27, 2018.

“Term Loan Maturity Date” shall mean the earlier of (a) the date that is the thirty-six (36) month anniversary of the Term Loan Funding Date or (b) the date of acceleration of the Term Loan pursuant to Section 9.2(a).

“Term Loan Note” shall mean a promissory note made by the Borrower in favor of a Lender evidencing the portion of the Term Loan made by such Lender, substantially in the form attached as Exhibit A, and any amendments, supplements and modifications thereto, any substitutes therefor, and any replacements, restatements, renewals or extension thereof, in whole or in part.

“Term Loan Percentage” shall mean, as to any Lender, the ratio of (a) the amount of the undrawn Term Loan Commitment of such Lender (or, if the Term Loan Commitment has been terminated, the outstanding principal balance of the Term Loan of such Lender) to (b) the amount of the aggregate undrawn Term Loan Commitments of all Lenders (or, if the Term Loan Commitment has been terminated, the aggregate outstanding principal balance of the Term Loan of all Lenders).

“Test Period” shall mean each period of four consecutive Fiscal Quarters then last ended in each case taken as one accounting period.

“364-Day Term Loan Agreement” shall mean the 364-Day Term Loan Agreement, dated as of even date herewith, among the Borrower, the lenders from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent, as amended, restated, supplemented, modified, replaced or refinanced from time to time.

“Ticking Fee” shall have the meaning provided in Section 4.3(a).

“Transaction” shall mean, collectively, (i) the entering into of the Loan Documents and the incurrence of the Term Loan on the Term Loan Funding Date and (ii) the payment of fees and expenses in connection with the foregoing.

“U.S.” or “United States” shall mean the United States of America.

“U.S. GAAP” shall mean generally accepted accounting principles in the United States of America as in effect from time to time; provided that determinations in accordance with U.S. GAAP for purposes of Article VIII, including defined terms as used therein, are subject (to the extent provided therein) to Section 1.3(b).

“U.S. Tax Compliance Certificate” shall have the meaning provided in Section 4.12(e)(i)(B)(iii).

“Wholly-Owned Domestic Subsidiary” shall mean, as to any Person, any Wholly-Owned Subsidiary of such Person which is a Domestic Subsidiary. Notwithstanding the foregoing, no SPV that is a party to an Asset Securitization permitted hereunder shall be deemed to constitute a “Wholly-Owned Domestic Subsidiary” for purposes of (i) the definitions of “Immaterial Subsidiary” and “Material Subsidiary” set forth herein and (ii) Section 7.12 hereof.

“Wholly-Owned Subsidiary” shall mean, as to any Person, (i) any corporation 100% of whose capital stock (other than director’s qualifying shares and/or other nominal amounts of shares required by applicable law to be held by Persons other than such Person) is at the time owned by such Person and/or one or more Wholly-Owned Subsidiaries of such Person and (ii) any partnership, limited liability company, association, joint venture or other entity in which such Person and/or one or more Wholly-Owned Subsidiaries of such Person has a 100% Equity Interest at such time; provided that any Foreign Subsidiary of such Person at least 90% of whose capital stock or other Equity Interests are owned by such Person and/or one or more Wholly-Owned Subsidiaries (determined after giving effect to this proviso) of such Person at such time shall be deemed to be a Wholly-Owned Subsidiary of such Person.

“Write-Down and Conversion Powers” shall mean, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the

applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

SECTION 1.2 Other Definitions and Provisions. With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document: (a) the definitions of terms herein shall apply equally to the singular and plural forms of the terms defined, (b) whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms, (c) the words “include”, “includes” and “including” shall be deemed to be followed by the phrase “without limitation”, (d) the word “will” shall be construed to have the same meaning and effect as the word “shall”, (e) any reference herein to any Person shall be construed to include such Person’s successors and assigns, (f) the words “herein”, “hereof” and “hereunder”, and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (g) all references herein to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, this Agreement, (h) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights, (i) the term “documents” includes any and all instruments, documents, agreements, certificates, notices, reports, financial statements and other writings, however evidenced, whether in physical or electronic form, (j) in the computation of periods of time from a specified date to a later specified date, the word “from” means “from and including;” the words “to” and “until” each mean “to but excluding;” and the word “through” means “to and including” and (k) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

SECTION 1.3 Accounting Terms.

- (a) All accounting terms not specifically or completely defined herein shall be construed in conformity with, and all financial data and financial statements (including financial ratios and other financial calculations) required to be submitted pursuant to this Agreement shall be prepared in conformity with U.S. GAAP, applied on a consistent basis, as in effect from time to time and consistent with those used in preparing the audited financial statements required by Section 7.1(b), provided, that (i) if, at any time any change in U.S. GAAP would affect the computation of any financial ratio or requirement set forth in any Loan Document, and either the Borrower or the Required Lenders shall so request, the Administrative Agent, the Lenders and the Borrower shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in U.S. GAAP (subject to the approval of the Required Lenders); provided, that, until so amended (A) such ratio or requirement shall continue to be computed in accordance with U.S. GAAP prior to such change therein and (B) the Borrower shall provide to the Administrative Agent and the Lenders financial statements and other documents required under this Agreement or as reasonably requested hereunder setting forth a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in U.S. GAAP, (ii) to the extent expressly required pursuant to the provisions of this Agreement, certain calculations shall be made on a Pro Forma Basis, and (iii) for purposes of determining compliance with any incurrence or expenditure tests set forth in Articles VII and/or VIII (excluding Section 8.7 or 8.8), any amounts so incurred or expended (to the extent incurred or expended in a currency other than Dollars) shall be converted into Dollars on the basis of the exchange rates (as shown on the Reuters World Currency Page for such currency or, if the same does not provide such exchange rate, by reference to such other publicly available service for displaying exchange rates as may be reasonably selected by the Administrative Agent or, in the event no such service is selected, on such other basis as is reasonably satisfactory to the Administrative Agent) as in effect on the date of such incurrence or expenditure under any provision of any such Section that has an aggregate Dollar limitation provided for therein (and to the extent the respective incurrence or expenditure test regulates the aggregate amount outstanding at any time and it is expressed in terms of Dollars, all outstanding amounts originally incurred or spent in currencies other than Dollars shall be converted into Dollars on the basis of the exchange rates (as shown on the Reuters World Currency Page for such currency or, if the same does not provide such exchange rate, by reference to such other publicly available service for displaying exchange rates as may be reasonably selected by the Administrative Agent or, in the event no such
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service is selected, on such other basis as is reasonably satisfactory to the Administrative Agent) as in effect on the date of any new incurrence or expenditures made under any provision of any such Section that regulates the Dollar amount outstanding at any time). Notwithstanding the foregoing, all financial statements delivered hereunder shall be prepared, and all financial covenants contained herein shall be calculated, without giving effect to any election under the Statement of Financial Accounting Standards No. 159 (or any similar accounting principle) permitting a Person to value its financial liabilities or Indebtedness at the fair value thereof. Notwithstanding anything to the contrary in this Agreement or any other Loan Document, for purposes of calculations made pursuant to the terms of this Agreement or any other Loan Document, U.S. GAAP will be deemed to treat leases that would have been classified as operating leases in accordance with generally accepted accounting principles in the United States as in effect on December 31, 2015 in a manner consistent with the treatment of such leases under generally accepted accounting principles in the United States as in effect on December 31, 2015, notwithstanding any modifications or interpretive changes thereto that may occur thereafter.

SECTION 1.4 Rounding. Any financial ratios required to be maintained by the Borrower pursuant to this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio or percentage is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

SECTION 1.5 References to Agreement and Laws. Unless otherwise expressly provided herein, (a) references to formation documents, governing documents, agreements (including the Loan Documents) and other contractual instruments shall be deemed to include all subsequent amendments, restatements, extensions, supplements and other modifications thereto, but only to the extent that such amendments, restatements, extensions, supplements and other modifications are not prohibited by any Loan Document; and (b) references to any Applicable Law shall include all statutory and regulatory provisions consolidating, amending, replacing, supplementing or interpreting such Applicable Law.

SECTION 1.6 Times of Day. Unless otherwise specified, all references herein to times of day shall be references to Eastern time (daylight or standard, as applicable).

ARTICLE II

[RESERVED]

ARTICLE III

TERM LOAN FACILITY

SECTION 3.1 The Term Loan. Subject to the terms and conditions of this Agreement, and in reliance upon the representations and warranties set forth herein, each Lender severally agrees to make a portion of the Term Loan to the Borrower in Dollars on the Term Loan Funding Date in a single drawing in an aggregate principal amount not to exceed such Lender's Term Loan Commitment; provided, however, that the aggregate amount of the Term Loan made on the Term Loan Funding Date shall not exceed \$600,000,000. Upon the making of a portion of the Term Loan by a Lender, its Term Loan Commitment shall automatically be terminated in its entirety (i.e., reduced to zero). In addition, any then existing Term Loan Commitment shall expire and terminate (i.e., be reduced to zero) upon the close of business on April 27, 2018. Each Lender's portion of the Term Loan shall be in a principal amount equal to its Term Loan Percentage of the aggregate Term Loan made on the Term Loan Funding Date. The Borrower may not reborrow any portion of the Term Loan which is repaid.

SECTION 3.2 Procedure for Advance of the Term Loan. The Borrower shall give the Administrative Agent an irrevocable prior written notice substantially in the form of Exhibit B (a "Notice of Borrowing") prior to 1:00 p.m. on the Term Loan Funding Date requesting that the Lenders make the Term Loan on such date (provided that the Borrower shall give such irrevocable Notice of Borrowing no later than three (3) Business Days prior to the Term

Loan Funding Date if the Borrower requests that the Term Loan be a LIBOR Rate Loan), specifying (A) the date of such borrowing, which shall be a Business Day, (B) the amount of such borrowing (which shall not exceed the amount of the Term Loan Commitment, as then in effect), (C) whether the Term Loan is to be a LIBOR Rate Loan or Base Rate Loan, and (D) if it is to be a LIBOR Rate Loan, the duration of the first Interest Period applicable thereto. A Notice of Borrowing received after the time set forth herein shall be deemed received on the next Business Day. Upon receipt of such Notice of Borrowing from the Borrower, the Administrative Agent shall promptly notify each Lender thereof. Not later than 3:00 p.m. Eastern time on the Term Loan Funding Date, each Lender will make available to the Administrative Agent for the account of the Borrower, at the Administrative Agent's Office in immediately available funds, the amount of such Term Loan to be made by such Lender on the Term Loan Funding Date. The Borrower hereby irrevocably authorizes the Administrative Agent to disburse the proceeds of the Term Loan in immediately available funds by wire transfer to the account of the Borrower designated in the most recent notice substantially in the form attached as Exhibit C (a "Notice of Account Designation") delivered by the Borrower to the Administrative Agent.

SECTION 3.3 Repayment of the Term Loan. The Borrower shall repay the Term Loan on the dates and in the installments as follows: on the last date of the first full fiscal quarter ending after the Term Loan Funding Date and on the last date of each fiscal quarter thereafter, 2.50% of the Term Loan Amount, except as the amounts of individual installments may be adjusted pursuant to Section 3.4. If not sooner paid, the Borrower shall repay the aggregate outstanding principal balance of the Term Loan in full, together with accrued interest thereon, on the Term Loan Maturity Date.

SECTION 3.4 Optional Prepayment of the Term Loan. The Borrower may at any time and from time to time prepay the Term Loan, in whole or in part, with irrevocable prior written notice to the Administrative Agent in substantially in the form attached as Exhibit D (a "Notice of Prepayment") given not later than 1:00 p.m. (i) on the same Business Day as prepayment of the portion of the Term Loan which is a Base Rate Loan and (ii) at least three (3) Business Days before prepayment of the portion of Term Loan which is a LIBOR Rate Loan specifying (A) the date and amount of prepayment and (B) whether the repayment is of Term Loans which are LIBOR Rate Loans, Term Loans which are Base Rate Loans, or a combination thereof, and, if of a combination thereof, the amount allocable to each. Upon receipt of such notice, the Administrative Agent shall promptly notify each Lender thereof. If any such Notice of Prepayment is given, the amount specified in such notice shall be due and payable on the date set forth in such notice. Partial prepayments shall be in an aggregate amount of (i) \$3,000,000 or a whole multiple of \$1,000,000 in excess thereof with respect to Base Rate Loans or any lesser amount outstanding, (ii) \$5,000,000 or a whole multiple of \$1,000,000 in excess thereof with respect to LIBOR Rate Loans or any lesser amount outstanding. A Notice of Prepayment received after 1:00 p.m. shall be deemed received on the next Business Day. Each such prepayment shall be accompanied by any amount required to be paid pursuant to Section 4.9 hereof. Optional prepayments of the Term Loan shall be applied to the remaining principal installments (including principal payments to be made on the maturity date thereof) of the Term Loan as the Borrower may direct the Administrative Agent in writing.

SECTION 3.5 Permanent Reduction of the Term Loan Commitment. The Borrower shall have the right at any time and from time to time, upon at least two (2) Business Days prior written notice to the Administrative Agent, to permanently reduce, without premium or penalty, (i) the entire Term Loan Commitment at any time or (ii) portions of the Term Loan Commitment, from time to time, in an aggregate principal amount not less than \$10,000,000 or any whole multiple of \$5,000,000 in excess thereof. Any reduction of the Term Loan Commitment shall be applied to the Term Loan Commitment of each Lender according to its Term Loan Percentage. All Ticking Fees accrued with respect to any portion of the Term Loan Commitment terminated pursuant to this Section 3.5 shall be paid on the effective date of such termination.

SECTION 3.6 Mandatory Prepayments of the Term Loan. In the event the Borrower fails to consummate the Paroc Acquisition on or prior to the thirtieth (30th) day after the Term Loan Funding Date, the Borrower shall prepay the aggregate outstanding principal balance of the Term Loan in full, together with accrued interest thereon, on the first Business Day following such thirtieth (30th) day.

ARTICLE IV

GENERAL LOAN PROVISIONS

SECTION 4.1 Interest.

(a) Interest Rate Options. Subject to the provisions of this Section, at the election of the Borrower, Term Loans shall bear interest at (A) the Base Rate plus the Applicable Margin or (B) the LIBOR Rate plus the Applicable Margin (provided that the LIBOR Rate shall not be available until the second Business Day after the Closing Date unless the Borrower has delivered to the Administrative Agent a letter in form and substance reasonably satisfactory to the Administrative Agent indemnifying the Lenders in the manner set forth in Section 4.9 of this Agreement). The Borrower shall select the rate of interest and Interest Period, if any, applicable to any Loan at the time a Notice of Borrowing is given or at the time a Notice of Conversion/Continuation is given pursuant to Section 4.2. Any Term Loan or any portion of either as to which the Borrower has not duly specified an interest rate as provided herein shall be deemed a Base Rate Loan and any LIBOR Rate Loan or any portion thereof as to which the Borrower has not duly specified an Interest Period as provided herein shall be deemed a LIBOR Rate Loan for a one (1) month Interest Period.

(b) Interest Periods. In connection with each LIBOR Rate Loan, the Borrower, by giving notice at the times described in Section 3.2 or 4.2, as applicable, shall elect an interest period (each, an “Interest Period”) to be applicable to such Term Loan, which Interest Period shall be a period of one (1), two (2), three (3), or six (6) months; provided that:

(i) the Interest Period shall commence on the date of advance of or conversion to any LIBOR Rate Loan and, in the case of immediately successive Interest Periods, each successive Interest Period shall commence on the date on which the immediately preceding Interest Period expires;

(ii) if any Interest Period would otherwise expire on a day that is not a Business Day, such Interest Period shall expire on the next succeeding Business Day; provided, that if any Interest Period would otherwise expire on a day that is not a Business Day but is a day of the month after which no further Business Day occurs in such month, such Interest Period shall expire on the immediately preceding Business Day;

(iii) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of the relevant calendar month at the end of such Interest Period;

(iv) no Interest Period shall extend beyond the Term Loan Maturity Date without payment of any amounts pursuant to Section 4.9; and

(v) there shall be no more than eight (8) Interest Periods in effect at any time.

(c) Default Rate. Subject to Section 9.2, (i) immediately upon the occurrence and during the continuance of an Event of Default under Section 9.1(a), or 9.1(e), or (ii) at the election of the Required Lenders, upon the occurrence and during the continuance of any other Event of Default:

(i) the Borrower shall no longer have the option to request LIBOR Rate Loans;

(ii) all outstanding LIBOR Rate Loans shall bear interest at a rate per annum of two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to LIBOR Rate Loans until the end of the applicable Interest Period and thereafter at a rate equal to two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to Base Rate Loans;

(iii) all outstanding Base Rate Loans shall bear interest at a rate per annum equal to two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to Base Rate Loans; and

(iv) all other Obligations arising hereunder or under any other Loan Document shall bear interest at a rate per annum equal to two percent (2%) in excess of the rate (including the Applicable Margin) applicable to such other Obligation (provided, that if no rate for such other Obligation is set forth herein or in such other Loan Document, then such Obligation shall bear interest at a rate per annum equal to two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to Base Rate Loans).

Interest shall continue to accrue on the Obligations after the filing by or against the Borrower of any petition seeking any relief in bankruptcy or under any act or law pertaining to insolvency or debtor relief, whether state, federal or foreign.

(d) Interest Payment and Computation. Interest on each Base Rate Loan shall be due and payable in arrears on the last Business Day of each calendar quarter commencing on the last Business Day of the first full fiscal quarter that ends following the Term Loan Funding Date; and interest on each LIBOR Rate Loan shall be due and payable on the last day of each Interest Period applicable thereto, and if such Interest Period extends over three (3) months, at the end of each three (3) month interval during such Interest Period; provided, that accrued and unpaid interest on past due amounts (including interest on past due interest) shall be due and payable upon demand. All computations of interest for Base Rate Loans based on the Prime Rate shall be made on the basis of a year of 365 or 366 days, as the case may be, and actual days elapsed. All other computations of fees and interest provided hereunder shall be made on the basis of a 360-day year and actual days elapsed (which results in more fees or interest, as applicable, being paid than if computed on the basis of a 365/366-day year).

(e) Maximum Rate. Notwithstanding anything herein to the contrary, if at any time the interest rate applicable to any Term Loan, together with all fees, charges and other amounts which are treated as interest on such Term Loan under applicable law (collectively the "Charges"), shall exceed the maximum lawful rate (the "Maximum Rate") which may be contracted for, charged, taken, received or reserved by the Lender holding such Term Loan in accordance with Applicable Law, the rate of interest payable in respect of such Term Loan hereunder, together with all Charges payable in respect thereof, shall be limited to the Maximum Rate and, to the extent lawful, the interest and Charges that would have been payable in respect of such Term Loan but were not payable as a result of the operation of this Section shall be cumulated and the interest and Charges payable to such Lender in respect of other Term Loans or periods shall be increased (but not above the Maximum Rate therefor) until such cumulated amount, together with interest thereon at the Federal Funds Rate to the date of repayment, shall have been received by such Lender. It is the intent hereof that the Borrower not pay or contract to pay, and that neither the Administrative Agent nor any Lender receive or contract to receive, directly or indirectly in any manner whatsoever, interest in excess of that which may be paid by the Borrower under Applicable Law.

SECTION 4.2 Notice and Manner of Conversion or Continuation of Term Loans. Provided that (i) no Event of Default has occurred and is then continuing and (ii) the Administrative Agent, at the request of the Required Lenders, shall not have notified the Borrower to the contrary, the Borrower shall have the option to:

(a) convert at any time on or after the second Business Day after the Closing Date all or any portion of any outstanding Base Rate Loans in a principal amount equal to \$3,000,000 or any whole multiple of \$1,000,000 in excess thereof into one or more LIBOR Rate Loans; and

(b) upon the expiration of any Interest Period with respect to any LIBOR Rate Loans, (i) convert any part of its outstanding LIBOR Rate Loans in a principal amount equal to \$5,000,000 or a whole multiple of \$1,000,000 in excess thereof into Base Rate Loans or the entire remaining amount thereof or (ii) continue such LIBOR Rate Loans as LIBOR Rate Loans.

Whenever the Borrower desires to convert or continue Term Loans as provided above, the Borrower shall give the Administrative Agent irrevocable prior written notice in the form attached as Exhibit E (a "Notice of Conversion/Continuation") not later than 1:00 p.m. three (3) Business Days before the day on which a proposed conversion or continuation of such Term Loan is to be effective specifying:

- (A) the Term Loans to be converted or continued, and, in the case of any LIBOR Rate Loan to be converted or continued, the last day of the Interest Period therefor;
- (B) the effective date of such conversion or continuation (which shall be a Business Day);
- (C) the principal amount of such Term Loans to be converted or continued; and
- (D) the Interest Period to be applicable to such converted or continued LIBOR Rate Loan.

The Administrative Agent shall promptly notify the affected Lenders of such Notice of Conversion/Continuation.

SECTION 4.3 Fees.

(a) Ticking Fee. Subject to Section 4.15(f), the Borrower shall pay to the Administrative Agent, for the account of each Lender, a ticking fee (the "Ticking Fee"), which shall accrue at the Applicable Margin on the daily actual amount of the Term Loan Commitment of such Lender during the period from and including the date hereof to but excluding the date on which the Term Loan Commitment terminates. Accrued Ticking Fees shall be payable in arrears on the last Business Day of each calendar quarter of each year and on the date on which the Term Loan Commitment terminate, commencing on the first such date to occur after the date hereof.

(b) Other Fees. The Borrower shall pay to the Administrative Agent for its own account fees in the amounts and at the times specified in the applicable Fee Letter with the Administrative Agent.

SECTION 4.4 Manner of Payment. Each payment by the Borrower on account of the principal of or interest on any Loan or of any fee, commission or other amounts payable to the Lenders under this Agreement (or any of them) shall be made not later than 1:00 p.m. on the date specified for payment under this Agreement to the Administrative Agent at the Administrative Agent's Office for the account of the Lenders entitled to such payment in Dollars, in immediately available funds and shall be made without any set off, counterclaim or deduction whatsoever. Any payment received after such time but before 2:00 p.m. on such day shall be deemed a payment on such date for the purposes of Section 9.1(a), but for all other purposes shall be deemed to have been made on the next succeeding Business Day. Any payment received after 2:00 p.m. shall be deemed to have been made on the next succeeding Business Day for all purposes. Upon receipt by the Administrative Agent of each such payment, the Administrative Agent (i) shall distribute to each such Lender at its address for notices set forth herein its pro rata share of such payment in accordance with the amounts then due and payable to such Lenders (except as specified below) and (ii) shall wire advice of the amount of such credit to each Lender. Each payment to the Administrative Agent of Administrative Agent's fees or expenses shall be made for the account of the Administrative Agent and any amount payable to any Lender under Sections 4.9, 4.10, 4.12 or 11.3 shall be paid to the Administrative Agent for the account of the applicable Lender. Subject to Section 4.1(b)(ii) and (iii), if any payment under this Agreement shall be specified to be made upon a day which is not a Business Day, it shall be made on the next succeeding day which is a Business Day and such extension of time shall in such case be included in computing any interest payable along with such payment.

SECTION 4.5 Evidence of Indebtedness. The Extensions of Credit made by each Lender shall be evidenced by one or more accounts or records maintained by such Lender and by the Administrative Agent in the ordinary course of business. The accounts or records maintained by the Administrative Agent and each Lender shall be conclusive absent manifest error of the amount of the Extensions of Credit made by the Lenders to the Borrower and the interest and payments thereon. Any failure to so record or any error in doing so shall not, however, limit or otherwise affect the obligation of the Borrower hereunder to pay any amount owing with respect to the Obligations. In the event of any conflict between the accounts and records maintained by any Lender and the accounts and records of the Administrative Agent in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error. Upon the request of any Lender made through the Administrative Agent, the Borrower shall execute and deliver to such Lender (through the Administrative Agent) a Term Loan Note, which shall evidence such Lender's Term Loans, in addition to such accounts or records. Each Lender may attach schedules to its Term Loan Note and endorse thereon the date, amount and maturity of its Loans and payments with respect thereto.

SECTION 4.6 Adjustments. If any Lender shall, by exercising any right of setoff or counterclaim or otherwise, obtain payment in respect of any principal of or interest on any of its Term Loans or other obligations hereunder resulting in such Lender's receiving payment of a proportion of the aggregate amount of its Term Loans and accrued interest thereon or other such obligations (other than pursuant to Sections 4.9, 4.10, 4.12 or 11.3.) greater than its pro rata share thereof as provided herein, then the Lender receiving such greater proportion shall (a) notify the Administrative Agent of such fact, and (b) purchase (for cash at face value) participations in the Term Loans and such other obligations of the other Lenders, or make such other adjustments as shall be equitable, so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of principal of and accrued interest on their respective Term Loans and other amounts owing them; provided that

(i) if any such participations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations shall be rescinded and the purchase price restored to the extent of such recovery, without interest, and

(ii) the provisions of this paragraph shall not be construed to apply to (A) any payment made by the Borrower pursuant to and in accordance with the express terms of this Agreement or (B) any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Term Loans to any assignee or participant, other than to the Borrower or any Subsidiary or Affiliate thereof (as to which the provisions of this paragraph shall apply).

Each Credit Party consents to the foregoing and agrees, to the extent it may effectively do so under Applicable Law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against each Credit Party rights of setoff and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of each Credit Party in the amount of such participation.

SECTION 4.7 Obligations of Lenders.

(a) Funding by Lenders; Presumption by Administrative Agent. Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any borrowing that such Lender will not make available to the Administrative Agent such Lender's share of such borrowing, the Administrative Agent may assume that such Lender has made such share in Dollars available on such date in accordance with Section 3.2 and may, in reliance upon such assumption, make available to the Borrower a corresponding amount in Dollars. In such event, if a Lender has not in fact made its share of the applicable borrowing available to the Administrative Agent in Dollars, then the applicable Lender and the Borrower severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount with interest thereon, for each day from and including the date such amount is made available to the Borrower to but excluding the date of payment to the Administrative Agent, at;

(i) in the case of a payment to be made by such Lender, the greater of (1) the daily average Federal Funds Rate and (2) a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation; and

(ii) in the case of a payment to be made by the Borrower, the interest rate otherwise applicable to such Term Loan.

If the Borrower and such Lender shall pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Borrower the amount of such interest paid by the Borrower for such period. If such Lender pays its share of the applicable borrowing to the Administrative Agent, then the amount so paid shall constitute such Lender's Loan included in such borrowing. Any payment by the Borrower shall be without prejudice to any claim the Borrower may have against a Lender that shall have failed to make such payment to the Administrative Agent.

(b) Nature of Obligations of Lenders Regarding Extensions of Credit. The obligations of the Lenders under this Agreement to make the Term Loans are several and are not joint or joint and several. The failure of any Lender to make available its Term Loan Percentage of any Term Loan requested by the Borrower shall not relieve it or any other Lender of its obligation, if any, hereunder to make its Term Loan Percentage of such Term Loan available on the borrowing date, but no Lender shall be responsible for the failure of any other Lender to make its Term Loan Percentage of such Term Loan available on the borrowing date.

SECTION 4.8 Changed Circumstances.

(a) Circumstances Affecting LIBOR Rate Availability.

(i) If prior to the commencement of any Interest Period for a LIBOR Rate Loan: (A) the Administrative Agent determines (which determination shall be conclusive and binding absent manifest error) that adequate and reasonable means do not exist for ascertaining LIBOR or the LIBOR Rate, as applicable (including, without limitation, because the LIBOR Screen Rate is not available or published on a current basis), for such Interest Period; or (B) the Administrative Agent is advised by the Required Lenders that LIBOR or the LIBOR Rate, as applicable, for such Interest Period will not adequately and fairly reflect the cost to such Lenders of making or maintaining their Term Loans included in such LIBOR Rate Loan for such Interest Period, then the Administrative Agent shall give notice thereof to the Borrower and the Lenders by telephone or telecopy as promptly as practicable thereafter and, until the Administrative Agent notifies the Borrower and the Lenders that the circumstances giving rise to such notice no longer exist, (1) any Notice of Conversion/Continuation that requests the conversion of any Term Loan to, or continuation of any Term Loan as, a LIBOR Rate Loan shall be ineffective and any such Term Loan shall be converted to a Base Rate Loan on the last day of the then current Interest Period applicable thereto and (2) if any Notice of Borrowing requests a LIBOR Rate Loan, such Term Loan shall be made as Base Rate Loan.

(ii) Notwithstanding the foregoing, if at any time the Administrative Agent determines (which determination shall be conclusive absent manifest error) that (A) the circumstances set forth in Section 4.8(a)(i) have arisen and such circumstances are unlikely to be temporary or (B) the circumstances set forth in Section 4.8(a)(i) have not arisen but the supervisor for the administrator of the LIBOR Screen Rate or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which the LIBOR Screen Rate shall no longer be used for determining interest rates for loans, then the Administrative Agent and the Borrower shall endeavor to establish an alternate rate of interest to the LIBOR that gives due consideration to the then prevailing market convention for determining a rate of interest for syndicated loans in the United States at such time, and shall enter into an amendment to this Agreement to reflect such alternate rate of interest and such other related changes to this Agreement as may be applicable. Notwithstanding anything to the contrary in Section 11.2, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Administrative Agent shall not have received, within five (5) Business Days of the date notice of such alternate rate of interest is provided to the Lenders, a written notice from the Required Lenders stating that such Required Lenders object to such amendment. Until an alternate rate of interest shall be determined in accordance with this Section 4.8(a)(ii) (but, in the case of the circumstances described in clause (B) of the first sentence of this Section 4.8(a)(ii), only to the extent the LIBOR Screen Rate for such Interest Period is not available or published at such time on a current basis), (1) any Notice of Conversion/Continuation that requests the conversion of any Term Loan to, or continuation of any Loan as, a LIBOR Rate Loan shall be ineffective and (2) if any Notice of Borrowing requests a LIBOR Rate Loan, such Term Loan shall be made as Base Rate Loan.

(b) Laws Affecting LIBOR Rate Availability. If, after the date hereof, the introduction of, or any change in, any Applicable Law or any change in the interpretation or administration thereof by any Governmental Authority, central bank or comparable agency charged with the interpretation or administration thereof, or compliance by any of the Lenders (or any of their respective Lending Offices) with any request or directive (whether or not having the force of law) of any such Governmental Authority, central bank or comparable agency, shall make it unlawful or impossible for any of the Lenders (or any of their respective Lending Offices) to honor its obligations to make or maintain any LIBOR Rate Loan, such Lender shall promptly give notice thereof to the Administrative Agent and the Administrative Agent shall promptly give notice to the Borrower and the other Lenders. Thereafter, until the Administrative Agent notifies the Borrower that such circumstances no longer exist, (i) the obligations of the Lenders to make LIBOR Rate Loans and the right of the Borrower to convert any Term Loan or continue any Term Loan as a LIBOR Rate Loan shall be suspended and thereafter the Borrower may select only Base Rate Loans and (ii) if any of the Lenders may not lawfully continue to

maintain a LIBOR Rate Loan to the end of the then current Interest Period applicable thereto, the applicable Loan shall immediately be converted to a Base Rate Loan for the remainder of such Interest Period; provided that if the Borrower elects to make such conversion, the Borrower shall pay to the Administrative Agent and the Lenders any and all costs, fees and other expenses incurred by the Administrative Agent and the Lenders in effecting such conversion.

SECTION 4.9 Indemnity. The Borrower hereby indemnifies each of the Lenders against any loss or expense (including, without limitation, any foreign exchange costs but, excluding any loss of anticipated profit) which may arise or be attributable to each Lender's obtaining, liquidating or employing deposits or other funds acquired to effect, fund or maintain any Term Loan (a) as a consequence of any failure by the Borrower to make any payment when due of any amount due hereunder in connection with a LIBOR Rate Loan, (b) due to any failure of the Borrower to borrow, continue or convert on a date specified therefor in a Notice of Borrowing or Notice of Conversion/Continuation or (c) due to any payment, prepayment or conversion of any LIBOR Rate Loan on a date other than the last day of the Interest Period therefor. The amount of such loss or expense shall be determined, in the applicable Lender's sole discretion, based upon the assumption that such Lender funded its Term Loan in the applicable interbank market and using any reasonable attribution or averaging methods which such Lender deems appropriate and practical. A certificate of such Lender setting forth the basis for determining such amount or amounts necessary to compensate such Lender shall be forwarded to the Borrower through the Administrative Agent and shall be conclusively presumed to be correct save for manifest error.

SECTION 4.10 Increased Costs.

(a) Increased Costs Generally. If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or advances, loans or other credit extended or participated in by, any Lender (except any reserve requirement reflected in the LIBOR Rate);

(ii) subject any Lender to any Taxes (other than (A) Indemnified Taxes addressed in Section 4.12 and (B) Excluded Taxes) on its loans, loan principal, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto; or

(iii) impose on any Lender or the London interbank or other applicable market any other condition, cost or expense affecting this Agreement or LIBOR Rate Loans made by such Lender or participation therein;

and the result of any of the foregoing shall be to increase the cost to such Lender of making, converting into or maintaining any LIBOR Rate Loan (or of maintaining its obligation to make any such Loan), or to reduce the amount of any sum received or receivable by such Lender hereunder (whether of principal, interest or any other amount) then, upon written request of such Lender, the Borrower shall promptly pay to any such Lender such additional amount or amounts as will compensate such Lender for such additional costs incurred or reduction suffered, as reasonably determined by such Lender (which determination shall be made in good faith (and not on an arbitrary or capricious basis) and generally consistent with similarly situated customers of such Lender under agreements having provisions similar to this Section 4.10(a), after consideration of such factors as such Lender then reasonably determines to be relevant).

(b) Capital Requirements. If any Lender determines that any Change in Law affecting such Lender or any lending office of such Lender or such Lender's holding company, if any, regarding capital or liquidity requirements has or would have the effect of reducing the rate of return on such Lender's capital or on the capital of such Lender's holding company, if any, as a consequence of this Agreement, the Term Loan Commitment of such Lender or the Term Loans made by such Lender to a level below that which such Lender or such Lender's holding company could have achieved but for such Change in Law (taking into consideration such Lender's policies and the policies of such Lender's holding company with respect to capital adequacy or liquidity), then from time to time upon written request of such Lender the Borrower shall promptly pay to such Lender such additional amount or amounts as will compensate such Lender or such Lender's holding company for any such reduction suffered, as reasonably determined by such Lender (which determination shall be made

in good faith (and not on an arbitrary or capricious basis) and generally consistent with similarly situated customers of such Lender under agreements having provisions similar to this Section 4.10(b), after consideration of such factors as such Lender then reasonably determines to be relevant).

(c) Certificates for Reimbursement. A certificate of a Lender setting forth the amount or amounts necessary to compensate such Lender or its holding company, as the case may be, as specified in paragraph (a) or (b) of this Section (including, to the extent such information is not deemed by such Lender to be confidential or proprietary to such Lender, reasonable details on the calculations performed by such Lender or its holding company in determining such amount or amounts) and delivered to the Borrower shall be conclusive absent manifest error. The Borrower shall pay such Lender the amount shown as due on any such certificate within ten (10) days after receipt thereof.

(d) [Reserved].

(e) Delay in Requests. Failure or delay on the part of any Lender to demand compensation pursuant to this Section shall not constitute a waiver of such Lender's right to demand such compensation; provided that the Borrower shall not be required to compensate a Lender pursuant to this Section for any increased costs incurred or reductions suffered more than one hundred eighty (180) days prior to the date that such Lender notifies the Borrower of the Change in Law or other events or conditions giving rise to such increased costs or reductions and of such Lender's intention to claim compensation therefor (except that if the Change in Law giving rise to such increased costs or reductions is retroactive, then the one hundred eighty day period referred to above shall be extended to include the period of retroactive effect thereof).

SECTION 4.11 Regulatory Limitation; Further Assurances. In the event that for any reason, the obligation of any of the Lenders to make a Term Loan (in each case taking into account the amount of the Obligations and all other indebtedness required to be aggregated under 12 U.S.C.A. §84, as amended, the regulations promulgated thereunder and any other Applicable Law) is determined by such Lender to exceed its then applicable legal lending limit under 12 U.S.C.A. §84, as amended, and the regulations promulgated thereunder, or any other Applicable Law, the amount of any Extension of Credit such Lender shall be obligated to make hereunder shall immediately be reduced to the maximum amount which such Lender may legally advance (as determined by such Lender), the obligation of each of the remaining Lenders hereunder shall be proportionately reduced, based on their applicable Term Loan Percentages and, to the extent necessary under such laws and regulations (as determined by each of the Lenders, with respect to the applicability of such laws and regulations to itself), and the Borrower shall reduce, or cause to be reduced, complying to the extent practicable with the remaining provisions hereof, the Obligations outstanding hereunder by an amount sufficient to comply with such maximum amounts.

SECTION 4.12 Taxes.

(a) Payments Free of Taxes. Any and all payments by or on account of any obligation of the Credit Parties hereunder or under any other Loan Document shall be made free and clear of and without reduction or withholding for any Indemnified Taxes or Other Taxes; provided that if any Credit Party or the Administrative Agent shall be required by Applicable Law to deduct any Indemnified Taxes (including any Other Taxes) from such payments, then (i) the sum payable by the applicable Credit Party shall be increased as necessary so that after making all required deductions (including deductions applicable to additional sums payable under this Section) the Administrative Agent or the applicable Lender, as the case may be, receives an amount equal to the sum it would have received had no such deductions been made, (ii) the Borrower shall make such deductions and (iii) the Borrower shall timely pay the full amount deducted to the relevant Governmental Authority in accordance with Applicable Law.

(b) Payment of Other Taxes by the Borrower. Without limiting the provisions of paragraph (a) above, the Borrower shall timely pay any Other Taxes to the relevant Governmental Authority in accordance with Applicable Law.

(c) Indemnification by the Borrower. The Borrower shall indemnify the Administrative Agent and each Lender, within ten (10) days after demand therefor, for the full amount of any Indemnified Taxes or Other Taxes (including Indemnified Taxes or Other Taxes imposed or asserted on or attributable to amounts payable under this Section) that are paid by (or required to be withheld or deducted on payments to) the Administrative Agent or such Lender, as the case may be, and any penalties, interest and reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes or Other Taxes were correctly or legally imposed or asserted by the relevant Governmental

Authority. A certificate as to the amount of such payment or liability delivered to the Borrower by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(d) Evidence of Payments. As soon as practicable after any payment of Taxes by the Borrower to a Governmental Authority pursuant to this Section 4.12, the Borrower shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(e) Status of Lenders. (i) Any Foreign Lender that is entitled to an exemption from or reduction of withholding tax with respect to payments hereunder or under any other Loan Document shall deliver to the Borrower (with a copy to the Administrative Agent), at the time or times reasonably requested by the Borrower or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Borrower or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Borrower or the Administrative Agent, shall deliver such other documentation prescribed by Applicable Law or reasonably requested by the Borrower or the Administrative Agent as will enable the Borrower or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Sections 4.12(e)(ii)(A), (ii)(B) and (ii)(D) below) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender:

(ii) Without limiting the generality of the foregoing, in the event that the Borrower is a "United States person" (within the meaning of Section 7701(a)(30) of the Code),

(A) any Lender that is a U.S. Person shall deliver to the Borrower and the Administrative Agent on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed originals of IRS Form W-9 certifying that such Lender is exempt from U.S. federal backup withholding tax;

(B) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), whichever of the following is applicable:

(i) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, duly completed copies of IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(ii) duly completed copies of IRS Form W-8ECI;

(iii) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit J-1 to the effect that such Foreign Lender is not (A) a "bank" within the meaning of Section 881(c)(3)(A) of the Code, (B) a "10 percent shareholder" of the Borrower within the meaning of Section 881(c)(3)(B) of the Code, or (C) a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code (a "U.S. Tax Compliance Certificate") and (y) duly completed copies of IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable;

or

(iv) to the extent a Foreign Lender is not the beneficial owner, executed originals of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN, IRS Form W-8BEN-E, a U.S. Tax Compliance Certificate substantially in the form of Exhibit J-2 or Exhibit J-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit J-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed originals of any other form prescribed by Applicable Law as a basis for claiming exemption from or a reduction in United States federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by Applicable Law to permit the Borrower or the Administrative Agent to determine the withholding or deduction required to be made; and

(D) if a payment made to a Lender under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Borrower and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Borrower or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower or the Administrative Agent as may be necessary for the Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Borrower and the Administrative Agent in writing of its legal inability to do so.

(f) Treatment of Certain Refunds . If the Administrative Agent or a Lender determines, in its sole discretion, that it has received a refund of any Taxes or Other Taxes as to which it has been indemnified by the Borrower or with respect to which the Borrower has paid additional amounts pursuant to this Section, it shall pay to the Borrower an amount equal to such refund within thirty (30) days of such determination (but only to the extent of indemnity payments made, or additional amounts paid, by the Borrower under this Section with respect to the Taxes or Other Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of the Administrative Agent or such Lender, as the case may be, and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund); provided that the Borrower, upon the request of the Administrative Agent or such Lender, agrees to repay the amount paid over to the Borrower (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) to the Administrative Agent or such Lender in the event the Administrative Agent or such Lender is required to repay such refund to such Governmental Authority. This paragraph shall not be construed to require the Administrative Agent or any Lender to make available its tax returns (or any other information relating to its taxes which it deems confidential) to the Borrower or any other Person.

(g) Survival. Without prejudice to the survival of any other agreement of the Credit Parties hereunder, the agreements and obligations of the Credit Parties contained in this Section shall survive the payment in full of the Obligations and the termination of the Term Loan Commitment.

(h) Each Lender shall severally indemnify the Administrative Agent within ten (10) days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that any Credit Party has not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of the Credit Parties to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 11.9(g) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under any Loan Document or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this paragraph (h). The agreements in this paragraph (h) shall survive the resignation and/or replacement of the Administrative Agent.

SECTION 4.13 Mitigation Obligations; Replacement of Lenders.

(a) Designation of a Different Lending Office. If any Lender delivers notice to the Administrative Agent pursuant to Section 4.8(b), or requests compensation under Section 4.10, or requires the Borrower to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 4.12, then, upon the request of the Borrower, such Lender shall use reasonable efforts to designate a different lending office for funding or booking its Term Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender, such designation or assignment (i) would make it lawful or possible, as the case may be, to honor its obligations to make or maintain LIBOR Rate Loans hereunder or would eliminate or reduce amounts payable pursuant to Section 4.10 or Section 4.12, as the case may be, in the future and (ii) would not subject such Lender to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender. The Borrower hereby agrees to pay all reasonable costs and expenses incurred by any Lender in connection with any such designation or assignment.

(b) Replacement of Lenders. If any Lender becomes unable to make or maintain LIBOR Rate Loans under Section 4.8(b), requests compensation under Section 4.10, or if the Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 4.12, or if any Lender is a Defaulting Lender hereunder or becomes a Non-Consenting Lender, or if any Lender is unable, on the date required by Section 11.21(a) or (b) to make any declaration or representation required therein, then the Borrower may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in, and consents required by, Section 11.9), all of its interests, rights and obligations under this Agreement and the related Loan Documents to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment); provided that:

- (i) the Borrower shall have paid to the Administrative Agent the assignment fee specified in Section 11.9;
 - (ii) such Lender shall have received payment of an amount equal to the outstanding principal of its Term Loans, accrued interest thereon, accrued fees and all other amounts payable to it hereunder and under the other Loan Documents (including any amounts under Section 4.9) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower (in the case of all other amounts);
 - (iii) in the case of any such assignment resulting from a claim for compensation under Section 4.10 or payments required to be made pursuant to Section 4.12, such assignment will result in a reduction in such compensation or payments thereafter;
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- (iv) such assignment does not conflict with Applicable Law; and
- (v) in the case of any such assignment with respect to a Non-Consenting Lender pursuant to Section 4.13(b), (A) such assignment shall be permitted hereunder only if no Event of Default has occurred and is continuing at the time of such proposed assignment and (B) each assignee shall consent, at the time of such assignment, to each matter in respect of which such assignor Lender was a Non-Consenting Lender.

A Lender shall not be required to make any such assignment or delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Borrower to require such assignment and delegation cease to apply.

SECTION 4.14 [Reserved].

SECTION 4.15 Defaulting Lenders. Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by Applicable Law:

- (a) Waivers and Amendments. That Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in Section 11.2.
- (b) [Reserved].
- (c) [Reserved].
- (d) [Reserved].
- (e) [Reserved].
- (f) Certain Fees. For any period during which that Lender is a Defaulting Lender, that Defaulting Lender shall not be entitled to receive any Ticking Fee pursuant to Section 4.3 for any period during which that Lender is a Defaulting Lender (and the Borrower shall not be required to pay any such fee that otherwise would have been required to have been paid to such Defaulting Lender).
- (g) Defaulting Lender Cure. If the Borrower and the Administrative Agent agree in writing in their sole discretion that a Defaulting Lender should no longer be deemed to be a Defaulting Lender, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any cash collateral), that Lender will, to the extent applicable, purchase at par that portion of outstanding Term Loans of the other Lenders or take such other actions as the Administrative Agent may determine to be necessary to cause the Term Loans to be held on a pro rata basis by the Lenders in accordance with their Term Loan Percentages, whereupon that Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrower while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender's having been a Defaulting Lender.

ARTICLE V

CONDITIONS OF EFFECTIVENESS AND BORROWING

SECTION 5.1 Conditions to Effectiveness. The effectiveness of this Agreement is subject to the satisfaction of each of the following conditions:

- (a) Executed Loan Documents. This Agreement and the Subsidiary Guaranty Agreement, together with any other applicable Loan Documents, shall have been duly authorized, executed and delivered to the Administrative Agent by the parties thereto and shall be in full force and effect.
 - (b) Closing Certificates; Etc. The Administrative Agent shall have received each of the following in form and substance reasonably satisfactory to the Administrative Agent:
 - (i) Officer's Certificate. A certificate from a Responsible Officer of the Borrower to the effect that all representations and warranties of such Person contained in this Agreement and the other Loan Documents are true and correct in all material respects except for any representation and warranty made as of an earlier date, which representation and warranty shall remain true and correct in all material
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respects as of such earlier date; that none of the Credit Parties is in violation of any of the covenants contained in this Agreement and the other Loan Documents applicable to it.

(ii) Certificate of Secretary of each Credit Party. A certificate of the secretary, assistant secretary, director, officer or other authorized person, as the case may be, of each Credit Party certifying as to the incumbency and genuineness of the signature of each officer of such Credit Party or other authorized person executing Loan Documents to which it is a party and certifying that attached thereto is a true, correct and complete copy of (A) the articles or certificate of incorporation or formation of such Credit Party and all amendments thereto, certified as of a recent date by the appropriate Governmental Authority in its jurisdiction of incorporation or formation, (B) the bylaws or other governing document of such Credit Party as in effect on the Closing Date, and (C) resolutions duly adopted by the board of directors (or other governing body) of such Credit Party authorizing the transactions contemplated hereunder and the execution, delivery and performance of this Agreement and the other Loan Documents to which it is a party.

(iii) Certificates of Good Standing. Certificates as of a recent date of the good standing (or the equivalent thereof, if any) of each Credit Party under the laws of its jurisdiction of organization and, to the extent requested by the Administrative Agent, each other jurisdiction where such Credit Party is qualified to do business.

(iv) Opinions of Counsel. Favorable opinions of external and internal United States counsel to the Borrower addressed to the Administrative Agent and the Lenders with respect to the Credit Parties, the Loan Documents and such other matters as the Administrative Agent shall request and which opinion shall permit reliance by successors and permitted assigns of each of the Administrative Agent and the Lenders.

(c) Governmental and Third Party Approvals. The Credit Parties shall have received all material governmental, shareholder and third party consents and approvals necessary (or any other material consents as determined in the reasonable discretion of the Administrative Agent) in connection with the transactions contemplated by this Agreement and the other Loan Documents and the other transactions contemplated hereby and no action shall have been taken by any Person that could reasonably be expected to restrain, prevent or impose any material adverse conditions on any of the Credit Parties or such other transactions or that could seek or threaten any of the foregoing, and no law or regulation shall be applicable which in the reasonable judgment of the Administrative Agent could reasonably be expected to have such effect.

(d) Financial Matters.

(i) Financial Statements. The Joint Lead Arrangers shall have received (A) the audited Consolidated balance sheet of the Borrower and its Subsidiaries for the three fiscal years most recently ended for which financial statements are available and the related audited statements of income and retained earnings and cash flows for such Fiscal Years and (B) unaudited Consolidated balance sheet of the Borrower and its Subsidiaries for each quarterly period ended after June 30, 2017 for which financial statements are publicly available and related unaudited interim statements of income and retained earnings.

(ii) Payment at Closing. The Borrower shall have paid (A) to the Administrative Agent and the Joint Lead Arrangers all fees and other amounts due and payable on or prior to the Closing Date and (B) all fees, charges and disbursements of counsel to the Administrative Agent to the extent accrued and unpaid prior to or on the Closing Date and for which a detailed invoice has been delivered to the Borrower.

(e) Miscellaneous.

i. Patriot Act. The Borrower and each of the Subsidiary Guarantors shall have provided to the Administrative Agent and the Lenders the documentation and other information requested by the Administrative Agent in order to comply with requirements of the Act.

ii. Other Documents. All opinions, certificates and other instruments and all proceedings in connection with the transactions contemplated by this Agreement shall be satisfactory in form and substance to the Administrative Agent. The Administrative Agent shall have received copies of all other documents, certificates and instruments reasonably requested thereby, with respect to the transactions contemplated by this Agreement.

SECTION 5.2 Conditions to Extension of the Term Loan. The obligations of the Lenders to make the Term Loan on the Term Loan Funding Date are subject to the satisfaction of the following conditions precedent on the relevant borrowing, issuance or extension date:

(a) Continuation of Representations and Warranties. The representations and warranties contained in Article VI shall be true and correct in all material respects on and as of such borrowing, issuance or extension date with the same effect as if made on and as of such date, except for any representation and warranty made as of an earlier date, which representation and warranty shall remain true and correct in all material respects as of such earlier date; provided, that (x) if a representation and warranty is qualified as to materiality, the materiality qualifier set forth above shall be disregarded with respect to such representation and warranty for purposes of this condition and (y) this clause (a) shall not apply to the representations and warranties contained in Section 6.5(e) with respect to any Extension of Credit occurring after the Closing Date.

(b) No Existing Default. No Default or Event of Default shall have occurred and be continuing on the borrowing date with respect to the Term Loans or after giving effect to the Term Loans to be made on such date.

(c) Notices. The Administrative Agent shall have received a Notice of Borrowing accordance with Section 3.2.

(d) Officer's Certificate. The Administrative Agent (or its counsel) shall have received a certificate of a Responsible Officer of the Borrower dated the Term Loan Funding Date, certifying that (A) the representations and warranties contained in Article VI (other than Section 6.5(e)) are true and correct in all material respects on and as of the Term Loan Funding Date (both before and after giving effect to the making of the Term Loan) with the same effect as if made on and as of such date, except for any representation and warranty made as of an earlier date, which representation and warranty is true and correct in all material respects as of such earlier date; provided, that if a representation and warranty is qualified as to materiality, the materiality qualifier set forth above shall be disregarded with respect to such representation and warranty for purposes of this certification and (B) no Default or Event of Default has occurred and is continuing on the Term Loan Funding Date (either before or after giving effect to the making of the Term Loan).

(e) Solvency Certificate. The Borrower shall have delivered to the Administrative Agent a certificate, in form and substance satisfactory to the Administrative Agent, and certified as accurate by the chief financial officer (or other similar officer) of the Borrower, that the representations and warranties set forth in Section 6.5(b) are true and correct on the Term Loan Funding Date.

ARTICLE VI

REPRESENTATIONS AND WARRANTIES OF THE CREDIT PARTIES

In order to induce the Lenders to enter into this Agreement and to make the Term Loans, the Borrower makes the following representations, warranties and agreements, all of which shall survive the execution and delivery of this Agreement and the Term Loan Notes and the making of the Term Loans.

SECTION 6.1 Company Status. Each of the Borrower and each of its Subsidiaries (i) is a duly organized and validly existing Company in good standing (or the local equivalent) under the laws of the jurisdiction of its organization, (ii) has the Company power and authority to own its property and assets and to transact the business in which it is engaged and presently proposes to engage and (iii) is duly qualified and is authorized to do business and is in good standing in each jurisdiction where the ownership, leasing or operation of its property or the conduct of its business requires such qualifications; except for failures of Subsidiaries of the Borrower that are not Credit Parties under clauses (i) and (ii) above, and failures of the Borrower and its Subsidiaries under clause (iii) above, which, either individually or in the aggregate for all such failures under preceding clauses (i), (ii) and (iii), could not reasonably be expected to have a Material Adverse Effect; provided that nothing in this Section 6.1 shall prevent the dissolution, merger, sale, transfer or other disposition of any Subsidiary of the Borrower or any other transactions by the Borrower or any of its Subsidiaries permitted pursuant to Section 8.2.

SECTION 6.2 Power and Authority. Each Credit Party has the Company power and authority to execute, deliver and perform the terms and provisions of each of the Loan Documents to which it is party and has taken all necessary Company action to authorize the execution, delivery and performance by it of each of such Loan Documents.

Each Credit Party has duly executed and delivered each of the Loan Documents to which it is party, and each of such Loan Documents constitutes its legal, valid and binding obligation enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws generally affecting creditors' rights and by equitable principles (regardless of whether enforcement is sought in equity or at law).

SECTION 6.3 No Violation. Neither the execution, delivery or performance by any Credit Party of the Loan Documents to which it is a party, nor compliance by it with the terms and provisions thereof, (i) will contravene any provision of any law, statute, rule or regulation or any order, writ, injunction or decree of any court or Governmental Authority binding on the Borrower and its Subsidiaries, (ii) will result in any breach of any of the terms, covenants, conditions or provisions of, or constitute a default under, or result in the creation or imposition of (or the obligation to create or impose) any Lien upon any of the property or assets of any Credit Party or any of its Subsidiaries pursuant to the terms of any indenture, mortgage, deed of trust, credit agreement or loan agreement, or any other material agreement, contract or instrument, in each case to which any Credit Party or any of its Subsidiaries is a party or by which it or any its property or assets is bound or to which it may be subject (including, without limitation, the Existing Indebtedness Agreements) other than any agreement, contract or instrument terminated, discharged or replaced as of the Closing Date, or (iii) will violate any provision of the certificate or articles of incorporation, certificate of formation, limited liability company agreement or by-laws (or equivalent organizational documents), as applicable, of any Credit Party or any of its Subsidiaries.

SECTION 6.4 Approvals. No order, consent, approval, license, authorization or validation of, or filing, recording or registration with (except for those that have otherwise been obtained or made on or prior to the Closing Date), or exemption by, any Governmental Authority is required to be obtained or made by, or on behalf of, any Credit Party to authorize, or is required to be obtained or made by, or on behalf of, any Credit Party in connection with, (i) the execution, delivery and performance of any Loan Document or (ii) the legality, validity, binding effect or enforceability of any such Loan Document.

SECTION 6.5 Financial Statements; Financial Condition; Undisclosed Liabilities.

(a) The audited consolidated balance sheet of the Borrower and its Subsidiaries at December 31, 2016 and the related consolidated statements of income and cash flows and changes in shareholders' equity of the Borrower and its Subsidiaries for the fiscal year of the Borrower ended on such date and the unaudited consolidated balance sheets of the Borrower and its Subsidiaries at the end of the Quarter ended September 30, 2017 and the related consolidated statements of income and cash flows and changes in shareholders' equity of the Borrower and its Subsidiaries for the Fiscal Quarter then ended, in each case furnished to the Lenders prior to the Closing Date, present fairly in all material respects the consolidated financial position of the Borrower and its Subsidiaries at the date of said financial statements and the results for the respective periods covered thereby. All such financial statements have been prepared in accordance with U.S. GAAP consistently applied except to the extent provided in the notes to said financial statements and subject, in the case of the unaudited financial statements, to normal year-end audit adjustments (all of which are of a recurring nature and none of which, individually or in the aggregate, would be material) and the absence of footnotes.

(b) On and as of the Closing Date, and on the Term Loan Funding Date, after giving effect to the funding of Term Loans hereunder and the funding of the initial loans under the 364-Day Term Loan Agreement, (i) the sum of the assets, at a fair valuation, of the Borrower (on a stand-alone basis) and of the Borrower and its Subsidiaries (taken as a whole) will exceed its or their respective debts, (ii) the Borrower (on a stand-alone basis) and the Borrower and its Subsidiaries (taken as a whole) has or have not incurred and does or do not intend to incur, and does or do not believe that it or they will incur, debts beyond its or their respective ability to pay such debts as such debts mature, and (iii) the Borrower (on a stand-alone basis) and the Borrower and its Subsidiaries (taken as a whole) will have sufficient capital with which to conduct its or their respective businesses. For purposes of this Section 6.5(b), "debt" means any liability on a claim, and "claim" means (a) right to payment, whether or not such a right is reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed, legal, equitable, secured, or unsecured or (b) right to an equitable remedy for breach of performance if such breach gives rise to a payment, whether or not such right to an equitable

remedy is reduced to judgment, fixed, contingent, matured, unmatured, disputed, undisputed, secured or unsecured. The amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability.

(c) Except as fully disclosed in the financial statements delivered pursuant to Section 6.5(a), and except for the Indebtedness incurred under this Agreement, there were as of the Closing Date no liabilities or obligations with respect to the Borrower or any of its Subsidiaries of any nature whatsoever (whether absolute, accrued, contingent or otherwise and whether or not due) which, either individually or in the aggregate, could reasonably be expected to be material to the Borrower and its Subsidiaries. As of the Closing Date, the Borrower does not know of any basis for the assertion against it or any of its Subsidiaries of any liability or obligation of any nature whatsoever that is not fully disclosed in the financial statements delivered pursuant to Section 6.5(a) or referred to in the immediately preceding sentence which, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

(d) [Reserved].

(e) On and as of the Closing Date, since December 31, 2016, nothing has occurred (singly or in aggregate with all other occurrences) that has had, or could reasonably be expected to have, a Material Adverse Effect; provided that no Extension of Credit shall constitute a representation and warranty that the matters set forth in this Section 6.5(e) are true and correct.

SECTION 6.6 Litigation. There are no actions, suits, proceedings, grievances or investigations pending or, to the knowledge of the Borrower, threatened (i) with respect to this Agreement or any Loan Document or (ii) that have had, or could reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect or a material adverse effect on the Transaction.

SECTION 6.7 True and Complete Disclosure. All factual information (taken as a whole) furnished by or on behalf of the Borrower and each of its Subsidiaries in writing to the Administrative Agent or any Lender for purposes of or in connection with this Agreement or the other Loan Documents, or any transaction contemplated herein or therein, is, and all other such factual information (taken as a whole) hereafter furnished by or on behalf of the Borrower and each of its Subsidiaries in writing to the Administrative Agent or any Lender will be, true and accurate in all material respects on the date as of which such information is dated or certified and not incomplete by omitting to state any fact necessary to make such information (taken as a whole) not misleading in any material respect at such time in light of the circumstances under which such information was provided, it being understood and agreed that for purposes of this Section 6.7, such factual information shall not include any pro forma financial information.

SECTION 1. Use of Proceeds; Margin Regulations.

(a) All proceeds of the Term Loans will be used to finance a portion of the Paroc Acquisition and for other working capital and general corporate purposes of the Borrower and its Subsidiaries.

(b) At the time of each Extension of Credit, the value of the Margin Stock at any time owned by the Borrower and its Subsidiaries does not exceed 25% of the value of the assets of the Borrower and its Subsidiaries taken as a whole. Neither the making of any Loan nor the use of the proceeds thereof nor the occurrence of any other Extension of Credit will violate or be inconsistent with the provisions of Regulation T, U or X of the Board of Governors of the Federal Reserve System.

SECTION 6.9 Tax Returns and Payments. Each of the Borrower and each of its Subsidiaries has timely filed or caused to be timely filed with the appropriate taxing authority all material returns, statements, forms and reports for Taxes (the "Returns") required to be filed by, or with respect to the Borrower and/or any of its Subsidiaries. The Returns accurately reflect in all material respects all liability for Taxes of the Borrower and its Subsidiaries, as applicable, for the periods covered thereby. Each of the Borrower and each of its Subsidiaries has paid all federal and state income Taxes and all other material Taxes and assessments shown on such Returns to be payable by it which have become due, other than those that are being contested in good faith and adequately disclosed and fully provided for on the financial statements of the Borrower and its Subsidiaries in accordance with U.S. GAAP. On the Closing Date, there is no material action, suit, proceeding, investigation, audit or claim now pending or, to the best knowledge of the Borrower or any of its Subsidiaries, threatened by any authority regarding any Taxes relating to the Borrower or any of its Subsidiaries. As of the Closing Date, except as set forth on Schedule 6.9, neither the Borrower nor any

of its Subsidiaries has entered into an agreement or waiver or been requested to enter into an agreement or waiver extending any statute of limitations relating to the payment or collection of Taxes of the Borrower or any of its Subsidiaries, or is aware of any circumstances that would cause the taxable years or other taxable periods of the Borrower or any of its Subsidiaries not to be subject to the normally applicable statute of limitations. Neither the Borrower nor any of its Subsidiaries has incurred, nor will any of them incur, any material tax liability in connection with the Transaction or any other transactions contemplated hereby (it being understood that the representation contained in this sentence does not cover any future tax liabilities of the Borrower or any of its Subsidiaries arising as a result of the operation of their businesses in the ordinary course of business).

SECTION 6.10 Compliance with ERISA; Non-U.S. Plans.

(a) The Borrower and each ERISA Affiliate have operated and administered each Plan in compliance with all applicable laws except for such instances of noncompliance as have not resulted in and could not reasonably be expected to result in a Material Adverse Effect. Neither the Borrower nor any ERISA Affiliate has incurred any liability pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans (as defined in Section 3 of ERISA), and no event, transaction or condition has occurred or exists that could reasonably be expected to result in the incurrence of any such liability by the Borrower or any ERISA Affiliate, or in the imposition of any Lien on any of the rights, properties or assets of the Borrower or any ERISA Affiliate, in either case pursuant to Title I or IV of ERISA or to such penalty or excise tax provisions or to section 412 of the Code, other than, in any case, such liabilities or Liens as could not reasonably be expected to result, individually or in the aggregate, in the occurrence of a Material Adverse Effect.

(b) Neither the Borrower nor any ERISA Affiliate has incurred (i) withdrawal liabilities (or are subject to contingent withdrawal liabilities) under section 4201 or 4204 of ERISA in respect of Multiemployer Plans that could reasonably be expected to result, either individually or in the aggregate, in the occurrence of a Material Adverse Effect or (ii) any obligation in connection with the termination or withdrawal from any Non-U.S. Plan that could reasonably be expected to result, either individually or in the aggregate, in the occurrence of a Material Adverse Effect.

(c) The expected postretirement benefit obligation (determined as of the last day of the Borrower's most recently ended fiscal year in accordance with Financial Accounting Standards Board Statement No. 106, without regard to liabilities attributable to continuation coverage mandated by section 4980B of the Code) of the Borrower could not reasonably be expected to result in the occurrence of a Material Adverse Effect.

(d) All Non-U.S. Plans have been registered, established, operated, administered and maintained in compliance with all laws, regulations and orders applicable thereto, except where failure so to comply could not be reasonably expected to have a Material Adverse Effect. All premiums, contributions and any other amounts required by applicable Non-U.S. Plan documents or applicable laws to be paid or accrued by the Borrower and each of its Subsidiaries have been paid or accrued as required and all obligations of the Borrower and each of its Subsidiaries under each applicable Non-U.S. Plan Document have been performed by the Borrower and each of its Subsidiaries, except where failure so to pay or accrue such amounts or to perform such obligations, as the case may be, could not be reasonably expected to have a Material Adverse Effect.

SECTION 6.11 [Reserved].

SECTION 6.12 Subsidiaries. On and as of the Closing Date, the Borrower has no Subsidiaries other than those Subsidiaries listed on Schedule 6.12 (with each Subsidiary that is (x) a Subsidiary Guarantor or (y) an Immaterial Subsidiary on the Closing Date identified as such).

SECTION 6.13 Compliance with Statutes, etc. The Borrower and each of its Subsidiaries is in compliance with all applicable statutes, regulations and orders of, and all applicable restrictions imposed by, all Governmental Authorities in respect of the conduct of its business and the ownership of its property (including, without limitation, applicable statutes, regulations, orders and restrictions relating to environmental standards and controls), except such non-compliances as could not reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect.

SECTION 6.14 Investment Company Act. The Borrower is not an “investment company” or a company “controlled” by an “investment company,” within the meaning of the Investment Company Act of 1940, as amended.

SECTION 6.15 Environmental Matters.

(a) Subject to Section 6.15(c), each of the Borrower and each of its Subsidiaries is in compliance with all applicable Environmental Laws and the requirements of any permits issued under such Environmental Laws. The Borrower and each of its Subsidiaries have obtained all of the permits and approvals required of them under Environmental Laws for the operation of their respective businesses. There are no pending or, to the knowledge of the Borrower, threatened Environmental Claims against the Borrower or any of its Subsidiaries or any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries (including any such claim arising out of the ownership, lease or operation by the Borrower or any of its Subsidiaries of any Real Property formerly owned, leased or operated by the Borrower or any of its Subsidiaries but no longer owned, leased or operated by the Borrower or any of its Subsidiaries). There are no facts, circumstances, conditions or occurrences with respect to the business or operations of the Borrower or any of its Subsidiaries, or any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries (including any Real Property formerly owned, leased or operated by the Borrower or any of its Subsidiaries but no longer owned, leased or operated by the Borrower or any of its Subsidiaries) or, to the knowledge of the Borrower, any property adjoining or adjacent to any such Real Property that could be reasonably expected (i) to form the basis of an Environmental Claim against the Borrower or any of its Subsidiaries or any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries or (ii) to cause any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries to be subject to any restrictions on the ownership, lease, occupancy or transferability of such Real Property by the Borrower or any of its Subsidiaries under any applicable Environmental Law.

(b) Subject to Section 6.15(c), other than in the ordinary course of business and in compliance with all applicable Environmental Laws, Hazardous Materials have not at any time been generated, used, treated or stored on, or transported to or from, or Released on or from, any Real Property by the Borrower or any of its Subsidiaries at any time that such Real Property was or has been owned, leased or operated by the Borrower or any of its Subsidiaries.

(c) Notwithstanding anything to the contrary in this Section 6.15, the representations and warranties made in this Section 6.15 shall be untrue only if the effect of any or all conditions, violations, claims, restrictions, failures and noncompliances of the types described above could, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

SECTION 6.16 Employment and Labor Relations. On the Closing Date, there are (i) no material strikes, lockouts, stoppages or slowdowns or any other material labor disputes against the Borrower or any of its Subsidiaries pending or, to the knowledge of the Borrower or any its Subsidiaries, threatened or planned and (ii) no union representation questions with respect to the Borrower or any of its Subsidiaries.

SECTION 6.17 Intellectual Property, etc. The Borrower and each of its Subsidiaries owns, or is licensed to use, all trademarks, tradenames, copyrights, patents and other intellectual property necessary for the present and ongoing conduct of its business, and the use thereof by the Borrower and each of its Subsidiaries does not infringe upon the rights of any other Person, except for any such infringements or the failure to own or have or continue to own or have which, as the case may be, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

SECTION 6.18 Indebtedness. Schedule 6.18 sets forth a list of all Indebtedness which would be included in Consolidated Total Indebtedness (including Contingent Obligations that would be included therein) with a principal amount outstanding in excess of \$10,000,000 of the Borrower and its Subsidiaries as of the Closing Date (excluding the Term Loans), in each case showing the aggregate principal amount thereof and the name of the respective borrower and the Borrower or any of its Subsidiaries which directly or indirectly guarantees such debt. In addition, the aggregate amount of Indebtedness which would be included in Consolidated Total Indebtedness (including Contingent Obligations that would be included therein) of the Borrower and its Subsidiaries as of the Closing Date and which is to remain outstanding after the Closing Date not so listed on Schedule 6.18 does not exceed \$50,000,000.

SECTION 6.19 [Reserved].

SECTION 6.20 Sanctions, Anti-Money Laundering and Anti-Corruption Laws. Neither the Borrower nor any of its Subsidiaries nor, to the knowledge of the Borrower, any of the officers, directors, employees or agents of itself or its Subsidiaries: (i) is, or is owned or controlled by, a Sanctioned Person; or (ii) is located, incorporated, organized, or resident in a Sanctioned Country. No proceeds from any Loan will be used, directly or indirectly, to lend, contribute, provide, or have otherwise been or will be made available to fund, any activity or business with any Sanctioned Person or Sanctioned Country, or in any other manner that will result in any violation or breach by Borrower, any of its Subsidiaries or any party hereto of Sanctions Laws or Anti-Corruption Laws. Borrower and its Subsidiaries have implemented and maintain in effect policies and procedures designed to ensure compliance by Borrower, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Money Laundering Laws, Anti-Corruption Laws and Sanctions Laws, and Borrower, its Subsidiaries and their respective officers and employees and to the knowledge of the Borrower, its and its Subsidiaries' directors, employees and agents, are in compliance with Anti-Money Laundering Laws, Anti-Corruption Laws and Sanctions Laws in all material respects.

SECTION 6.21 EEA Financial Institutions. No Credit Party is an EEA Financial Institution.

ARTICLE VII

AFFIRMATIVE COVENANTS

The Borrower hereby covenants and agrees that on and after the Closing Date and until the Term Loan Commitment has been terminated and all Obligations (other than contingent indemnification obligations not then due) have been paid and satisfied in full in cash:

SECTION 7.1 Information Covenants. The Borrower will furnish to the Administrative Agent (who shall furnish to each Lender):

(a) Quarterly Financial Statements. Within 45 days after the close of each of the first three Fiscal Quarters in each Fiscal Year of the Borrower commencing with the Fiscal Quarter ended September 30, 2017, (i) the consolidated balance sheet of the Borrower and its Subsidiaries as at the end of such Fiscal Quarter and the related consolidated statements of income and retained earnings and statement of cash flows for such Fiscal Quarter and for the elapsed portion of the Fiscal Year ended with the last day of such Fiscal Quarter, in each case setting forth comparative figures for the corresponding Fiscal Quarter in the prior Fiscal Year, all of which shall be certified by the chief financial officer, the treasurer or any financial officer (including a controller) of the Borrower that they fairly present in all material respects in accordance with U.S. GAAP the financial condition of the Borrower and its Subsidiaries as of the dates indicated and the results of their operations for the periods indicated, subject to normal year-end audit adjustments and the absence of footnotes, and (ii) management's discussion and analysis of the important operational and financial developments during such Fiscal Quarter.

(b) Annual Financial Statements. Within 90 days after the close of each Fiscal Year of the Borrower, the consolidated balance sheet of the Borrower and its Subsidiaries as at the end of such Fiscal Year and the related consolidated statements of income and retained earnings and statement of cash flows for such Fiscal Year setting forth comparative figures for the preceding Fiscal Year, all reported on by independent public accountants of recognized national standing (without a "going concern" or like qualification or exception and without any qualification or exception as to the scope of such audit) to the effect that such consolidated financial statements present fairly in all material respects the financial condition and results of operations of the Borrower and its Subsidiaries on a consolidated basis in accordance with U.S. GAAP consistently applied.

(c) Management Letters. Promptly after receipt by the Borrower, a copy of any "management letter" received from the certified public accountants auditing the consolidated financial statements of the Borrower and its Subsidiaries, on a group basis, and management's response thereto.

(d) Officer's Certificates. At the time of the delivery of the financial statements provided for in Sections 7.1(a) and (b), an Officer's Compliance Certificate from the chief financial officer, treasurer or other financial officer (including a controller) of the Borrower substantially in the form of Exhibit F certifying on

behalf of the Borrower that, to the best of such officer's knowledge, no Default or Event of Default has occurred and is continuing or, if any Default or Event of Default has occurred and is continuing, specifying the nature and extent thereof, which certificate shall set forth in reasonable detail the calculations required to establish whether the Borrower and its Subsidiaries were in compliance with the provisions of Sections 8.7 and 8.8 at the end of such Fiscal Quarter or Fiscal Year, as the case may be.

(e) Notice of Default, Litigation and Material Adverse Effect. Promptly, and in any event within five Business Days after any executive or senior managing officer of the Borrower obtains knowledge thereof, notice of (i) the occurrence of any event which constitutes a Default or an Event of Default, (ii) any litigation or governmental investigation or proceeding pending against the Borrower or any of its Subsidiaries with respect to any Loan Document, or (iii) any other event, change or circumstance that has had, or could reasonably be expected to have, a Material Adverse Effect.

(f) Other Reports and Filings. Promptly (but in any event within ten days) after the filing or delivery thereof, copies of all financial information, proxy materials and reports, if any, which the Borrower or any of its Subsidiaries shall publicly file with the SEC or deliver to holders (or any trustee, agent or other representative therefor) of any of its material Indebtedness pursuant to the terms of the documentation governing the same, provided that any financial information, proxy statements or other material required to be delivered pursuant to this Section 7.1(f) shall be deemed to have been furnished to each of the Administrative Agent and the Lenders on the date that such report, proxy statement or other material is posted on the Securities and Exchange Commission's website at www.sec.gov; provided further, that such information (other than any Form 10-K, Form 10-Q or proxy materials) shall be deemed to have been delivered when posted only upon notification by the Borrower to the Administrative Agent of such posting.

(g) Environmental Matters. Promptly after any officer of the Borrower or any of its Subsidiaries obtains knowledge thereof, notice of any Environmental Claim that results in, or could reasonably be expected to result in a Material Adverse Effect which notice shall describe in reasonable detail the nature of the claim, investigation, condition, occurrence or removal or remedial action and the Borrower's or such Subsidiary's response thereto.

(h) Rating Information. Promptly after any officer of the Borrower or any of its Subsidiaries obtains knowledge thereof, notice of any change in the corporate credit ratings of the Borrower by any Rating Agency (including, without limitation, a change in the outlook with respect to any such ratings), any notice from a Rating Agency indicating its intent to effect such a change in such ratings or its cessation of, or its intent to cease, providing such ratings of the Borrower, or any notice from a Rating Agency indicating its intent to place the Borrower on a "CreditWatch" or "WatchList" or any similar list, in each case with negative implications.

(i) Other Information. From time to time, such other information or documents (financial or otherwise) with respect to the Borrower or any of its Subsidiaries as the Administrative Agent or any Lender (through the Administrative Agent) may reasonably request.

SECTION 7.2 Books, Records and Inspections; Annual Meetings. The Borrower will, and will cause each of its Subsidiaries to, keep proper books of record and accounts in conformity with U.S. GAAP and all requirements of applicable law or, with respect to the books of record and accounts of a Subsidiary located outside the United States, in accordance with the applicable accounting standards and legal requirements of its local jurisdiction. The Borrower will, and will cause each of its Subsidiaries to, permit officers and designated representatives of the Administrative Agent or any Lender to visit and inspect, under guidance of officers of the Borrower or such Subsidiary, any of the properties of the Borrower or such Subsidiary, and to examine the books of accounts of the Borrower or such Subsidiary and discuss the affairs, finances and accounts of the Borrower or such Subsidiary with, and be advised as to the same by, its and their officers and independent accountants, all upon reasonable prior notice and at such reasonable times and intervals (not to exceed once per calendar year unless a Default or Event of Default shall have occurred and be continuing) and to such reasonable extent as the Administrative Agent or any such Lender may reasonably request.

SECTION 7.3 Maintenance of Property; Insurance. The Borrower will, and will cause each of its Subsidiaries to, (i) keep all property necessary to the business of the Borrower and its Subsidiaries in good working order and condition, ordinary wear and tear excepted and subject to the occurrence of casualty events, (ii) maintain with financially sound and reputable insurance companies insurance on all such property and against all such risks as is consistent and in accordance with industry practice for companies similarly situated owning similar properties and

engaged in similar businesses as the Borrower and its Subsidiaries, and (iii) furnish to the Administrative Agent, upon its request therefor, full information as to the insurance carried; provided that the Borrower and each of its Subsidiaries may self-insure to the extent it reasonably determines that such self-insurance is consistent with prudent business practice.

SECTION 7.4 Existence; Franchises. The Borrower will, and will cause each of its Subsidiaries to, do or cause to be done, all things necessary to preserve and keep in full force and effect its existence and its material rights, franchises, licenses, permits, copyrights, trademarks and patents; provided, however, that nothing in this Section 7.4 shall prevent (i) sales of assets and other transactions by the Borrower or any of its Subsidiaries in accordance with Section 8.2 or (ii) the withdrawal by the Borrower or any of its Subsidiaries of its qualification as a foreign Company in any jurisdiction if such withdrawal could not, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

SECTION 7.5 Compliance with Statutes, etc. The Borrower will, and will cause each of its Subsidiaries to, comply with all applicable statutes, regulations and orders of, and all applicable restrictions imposed by, all Governmental Authorities in respect of the conduct of its business and the ownership of its property (including applicable statutes, regulations, orders and restrictions relating to environmental standards and controls), except such non-compliances as could not, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

SECTION 7.6 Compliance with Environmental Laws. The Borrower will comply, and will cause each of its Subsidiaries to comply, with all Environmental Laws and permits applicable to, or required by, the ownership, lease or use of its Real Property now or hereafter owned, leased or operated by the Borrower or any of its Subsidiaries, except such noncompliances as could not, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, and will promptly pay or cause to be paid all costs and expenses incurred in connection with such compliance. Neither the Borrower nor any of its Subsidiaries will generate, use, treat, store, Release or dispose of, or permit the generation, use, treatment, storage, Release or disposal of Hazardous Materials on any Real Property now or hereafter owned, leased or operated by the Borrower or any of its Subsidiaries, or transport or permit the transportation of Hazardous Materials to or from any such Real Property, except for Hazardous Materials generated, used, treated, stored, Released or disposed of at any such Real Properties in compliance in all material respects with all applicable Environmental Laws and as required in connection with the normal operation, use and maintenance of the business or operations of the Borrower or any of its Subsidiaries.

SECTION 7.7 ERISA Reporting Covenant; Employee Benefits Matters. The Borrower will deliver promptly to the Administrative Agent, within ten days of the Borrower knowing or having reason to know of any of the following, a written notice setting forth the nature thereof and the action, if any, that the Borrower, its Subsidiaries, or ERISA Affiliates, as applicable, propose to take with respect thereto:

- (i) with respect to any Plan, any reportable event, as defined in section 4043(b) of ERISA and the regulations thereunder, for which notice thereof has not been waived pursuant to such regulations; or
 - (ii) the taking by the PBGC of steps to institute, or the threatening by the PBGC of the institution of, proceedings under section 4042 of ERISA for the termination of, or the appointment of a trustee to administer, any Plan, or the receipt by the Borrower or any ERISA Affiliate, of a notice from a Multiemployer Plan that such action has been taken by the PBGC with respect to such Multiemployer Plan; or
 - (iii) any event, transaction or condition that could reasonably be expected to result in the incurrence of any liability by the Borrower or any ERISA Affiliate pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans, or in the imposition of any Lien on any of the rights, properties or assets of the Borrower or any of its Subsidiaries or any ERISA Affiliate, pursuant to Title I or IV of ERISA or such penalty or excise tax provisions, if such liability or Lien, taken together with any other such liabilities or Liens then existing, could reasonably be expected to have a Material Adverse Effect; or
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(iv) receipt of notice of the imposition of a material financial penalty (which for this purpose shall mean any tax, penalty or other liability, whether by way of indemnity or otherwise) with respect to one or more Non-U.S. Plans that, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

SECTION 7.8 End of Fiscal Years; Fiscal Quarters. The Borrower will cause (i) its fiscal years to end on December 31 of each calendar year and (ii) its fiscal quarters to end on March 31, June 30, September 30 and December 31 of each calendar year.

SECTION 7.9 Payment of Taxes. The Borrower will pay and discharge, and will cause each of its Subsidiaries to pay and discharge, all (other than de minimis) federal and state income Taxes and all other material Taxes, assessments and governmental charges or levies imposed upon it or upon its income or profits or upon any properties belonging to it, prior to the date on which penalties attach thereto, and all material lawful claims which, if unpaid, might become a Lien or charge upon any properties of the Borrower or any of its Subsidiaries not otherwise permitted under Section 8.1(i); provided that neither the Borrower nor any of its Subsidiaries shall be required to pay any such tax, assessment, charge, levy or claim which is being contested in good faith and by proper proceedings if it has maintained adequate reserves with respect thereto in accordance with U.S. GAAP.

SECTION 7.10 Use of Proceeds. The Borrower will use the proceeds of the Term Loans only as provided in Section 6.8. The Borrower will not permit the proceeds from any Loan to be used, directly or indirectly, to lend, contribute, provide, or have otherwise been or will be made available to fund, any activity or business with any Sanctioned Person or Sanctioned Country, or in any other manner that will result in any violation or breach by the Borrower, any of its Subsidiaries or any party hereto of Sanctions Laws.

SECTION 7.11 Ratings. The Borrower will use commercially reasonable efforts to cause each of the Rating Agencies to continuously provide corporate credit ratings of the Borrower.

SECTION 7.12 Additional Subsidiary Guarantors.

(a) If at any time any Wholly-Owned Domestic Subsidiary of the Borrower is created, established or acquired and such Wholly Owned Domestic Subsidiary is (or would have been if at such time it had been a Wholly Owned Domestic Subsidiary of the Borrower), on the last day of the most recently ended Test Period for which financial statements have been or are required to have been delivered pursuant to Section 7.1(a) or (b), as applicable, a Material Subsidiary (with the “Immaterial Subsidiaries” tests being recalculated on a pro forma basis after giving effect to such creation, establishment or acquisition), the Borrower will, within 10 Business Days after such Wholly-Owned Domestic Subsidiary is created, established, acquired, notify the Administrative Agent thereof and, will as promptly as practicable, and in any event within sixty days, cause such Wholly-Owned Domestic Subsidiary to take all actions required for such Wholly-Owned Domestic Subsidiary to become a party to the Subsidiary Guaranty Agreement in accordance with the terms of the Subsidiary Guaranty Agreement and take all action in connection therewith as would otherwise have been required to be taken pursuant to Section 5.1 if such Wholly-Owned Domestic Subsidiary had been a Subsidiary Guarantor on the Closing Date; provided that if the Borrower determines in good faith, (before such Wholly-Owned Domestic Subsidiary has complied with the requirements of this Section 7.12(a)), that such Wholly-Owned Domestic Subsidiary will not remain a Material Subsidiary for more than sixty days after the date of the creation, establishment or acquisition thereof, because of contemplated transfers of assets permitted under Section 8.2 by such Wholly-Owned Domestic Subsidiary (with the “Immaterial Subsidiary” tests being recalculated on a pro forma basis after giving effect to such transfers of assets), then so long as the Borrower notifies the Administrative Agent thereof within the sixty day period referenced above, such Wholly Owned Domestic Subsidiary shall not be required to become a Subsidiary Guarantor (unless the respective transfer of assets does not occur within such sixty day period or unless and until it is subsequently required to become a Subsidiary Guarantor pursuant to the provisions of Section 7.12(b)); provided, further that if the preceding proviso is applicable, the Borrower shall determine in good faith whether any of the transfers of assets contemplated by the preceding proviso would result in one or more other Wholly-Owned Domestic Subsidiaries

of the Borrower which are not Subsidiary Guarantors and which previously constituted Immaterial Subsidiaries no longer constituting same (with determinations to be made in good faith on a pro forma basis to give effect to the respective transfers of assets), and if the Borrower determines in good faith that the result described above in this proviso would occur, then in such case within the sixty-day period described above the Borrower shall cause such Wholly-Owned Domestic Subsidiaries (which will not continue to constitute Immaterial Subsidiaries) to become Subsidiary Guarantors and to comply with the provisions of this Section 7.12(a) as if the respective transferee were a newly created, established or acquired Wholly-Owned Domestic Subsidiary. It is hereby understood and agreed that upon any Subsidiary being released as a “Subsidiary Guarantor” and being released from its obligations under the “Subsidiary Guaranty” in each case under (and as defined in) the Revolving Credit Agreement, such Subsidiary shall be concurrently and automatically be released as a Subsidiary Guarantor hereunder and be released from its obligations under the Subsidiary Guaranty. Without limiting the foregoing and notwithstanding the foregoing, the Borrower shall at all times cause each Subsidiary which is then a “Subsidiary Guarantor” (as defined in either of the Revolving Credit Agreement or the 364-Day Term Loan Agreement) to be a Subsidiary Guarantor hereunder.

(b) If, on the date of delivery by the Borrower of each of the financial statements required to be delivered pursuant to Sections 7.1(a) or (b), as applicable, any of the Wholly-Owned Domestic Subsidiaries of the Borrower that is not a Subsidiary Guarantor at such time would, as of the last day of the fiscal quarter or fiscal year for which such financial statements are required to be delivered, qualify as a Material Subsidiary, then the Borrower will, within 10 Business Days notify the Administrative Agent thereof and, as promptly as practicable, and in any event within sixty days after the date of delivery (or required date of delivery, if earlier) of the respective financial statements, cause each Wholly Owned Domestic Subsidiary of the Borrower (other than such Wholly-Owned Domestic Subsidiaries as will not constitute Material Subsidiaries after the taking of the actions required by this Section 7.12(b)) to take all actions required for such Wholly-Owned Domestic Subsidiary to become a party to the Subsidiary Guaranty Agreement in accordance with the terms of the Subsidiary Guaranty Agreement and take all action in connection therewith as would otherwise have been required to be taken pursuant to Section 5.1 if such Wholly-Owned Domestic Subsidiary had been a Subsidiary Guarantor on the Closing Date; provided that if the Borrower determines in good faith (before the respective Wholly-Owned Domestic Subsidiary has complied with the requirements of this Section 7.12(b)), that such Wholly-Owned Domestic Subsidiary will not remain a Material Subsidiary for more than sixty days after the date of delivery (or required date of delivery, if earlier) of the respective financial statements, because of contemplated transfers of assets permitted under Section 8.2 by such Wholly-Owned Domestic Subsidiary (with the “Immaterial Subsidiary” tests being recalculated on a pro forma basis after giving effect to such transfers of assets), then so long as the Borrower notifies the Administrative Agent thereof within the sixty day period referenced above, such Wholly-Owned Domestic Subsidiary shall not be required to become a Subsidiary Guarantor (unless the respective transfer of assets does not occur within such sixty day period or unless and until it is subsequently required to become a Subsidiary Guarantor pursuant to the provisions of this Section 7.12(b)); provided, further that if the preceding proviso is applicable, the Borrower shall determine in good faith whether any of the transfers of assets contemplated by the preceding proviso would result in one or more other Wholly-Owned Domestic Subsidiaries of the Borrower which are not Subsidiary Guarantors and which previously constituted Immaterial Subsidiaries no longer constituting same (with determinations to be made in good faith on a pro forma basis to give effect to the respective transfers of assets), and if the Borrower determines in good faith that the result described above in this proviso would occur, then in such case within the sixty-day period described above the Borrower shall cause such Wholly-Owned Domestic Subsidiaries (which will not continue to constitute Immaterial Subsidiaries) to become Subsidiary Guarantors and to comply with the provisions of this Section 7.12(b) as if the respective transferee were a Material Subsidiary on the last day of the respective fiscal quarter or fiscal year for which financial statements are acquired to be delivered pursuant to Section 7.1(a) or (b), as applicable.

SECTION 7.13 Maintenance of Company Separateness. The Borrower will, and the Borrower will cause each of its Material Subsidiaries and each SPV to, satisfy in all material respects customary Company formalities, including the holding of regular board of directors’ and shareholders’ meetings or action by directors or shareholders without a meeting and the maintenance of Company records. In addition, neither the Borrower nor any of its Subsidiaries shall take any action, or conduct its affairs in a manner, which is likely to result in the Company existence of the

Borrower, any other Credit Party or any Non-Guarantor Subsidiaries being ignored, or in the assets and liabilities of the Borrower or any other Credit Party being substantively consolidated with those of any other such Person or any Non-Guarantor Subsidiary in a bankruptcy, reorganization or other insolvency proceeding.

SECTION 7.14 Sanctions and Anti-Money Laundering Laws. The Borrower will use commercially reasonable efforts to ensure that no Term Loan or other funds used to repay any Obligation (i) constitute the property of, or are beneficially owned, directly or indirectly, by any Sanctioned Person; or (ii) are derived from any transactions or business with any Sanctioned Person or Sanctioned Country. The Borrower shall take reasonable measures designed to ensure compliance with Sanctions Laws, Anti-Corruption Laws and Anti-Money Laundering Laws. No Credit Party shall become a Sanctioned Person.

ARTICLE VIII

NEGATIVE COVENANTS

The Borrower hereby covenants and agrees that on and after the Closing Date and until the Term Loan Commitment has been terminated and all Obligations (other than contingent indemnification obligations not then due) have been paid and satisfied in full in cash:

SECTION 8.1 Liens. The Borrower will not, and will not permit any of its Subsidiaries to, create, incur, assume or suffer to exist any Lien upon or with respect to any property or assets (real or personal, tangible or intangible) of the Borrower or any of its Subsidiaries, whether now owned or hereafter acquired; provided that the provisions of this Section 8.1 shall not prevent the creation, incurrence, assumption or existence of the following (Liens described below are herein referred to as "Permitted Liens"):

(i) inchoate Liens for taxes, assessments or governmental charges or levies not yet due or Liens for taxes, assessments or governmental charges or levies being contested in good faith and by appropriate proceedings for which adequate reserves have been established in accordance with U.S. GAAP;

(ii) Liens in respect of property or assets of the Borrower or any of its Subsidiaries imposed by law, which were incurred in the ordinary course of business and do not secure Indebtedness for borrowed money, such as carriers', warehousemen's, materialmen's and mechanics' liens and other similar Liens arising in the ordinary course of business, and (x) which do not in the aggregate materially detract from the value of the Borrower's or such Subsidiary's property or assets or materially impair the use thereof in the operation of the business of the Borrower or such Subsidiary or (y) which are being contested in good faith by appropriate proceedings, which proceedings have the effect of preventing the forfeiture or sale of the property or assets subject to any such Lien;

(iii) Liens in existence on the Closing Date which are listed in Schedule 8.1, plus renewals, replacements and extensions of such Liens to the extent set forth on such Schedule 8.1, provided that any such renewal, replacement or extension does not encumber any additional assets or properties of the Borrower or any of its Subsidiaries except to the extent that Liens or such additional assets or properties are permitted under another provision of this Section 8.1;

(iv) Liens created by or pursuant to this Agreement and the other Loan Documents;

(v) (x) licenses, sublicenses, leases or subleases granted by the Borrower or any of its Subsidiaries to other Persons not materially interfering with the conduct of the business of the Borrower or any of its Subsidiaries and (y) any interest or title of a lessor, sublessor or licensor under any operating lease or license agreement not prohibited by this Agreement to which the Borrower or any of its Subsidiaries is a party (including, without limitation, a Lien on the Borrower's license of the "Pink Panther" trademark and any proceeds thereof in favor of the licensor thereof);

(vi) Liens upon assets of the Borrower or any of its Subsidiaries subject to Capitalized Lease Obligations to the extent such Capitalized Lease Obligations are permitted by Section 8.4(iv), provided that (x) such Liens only serve to secure the payment of Indebtedness arising under such Capitalized Lease Obligation and (y) the Lien encumbering the asset giving rise to the Capitalized Lease Obligation does not encumber any other asset of the Borrower or any Subsidiary of the Borrower;

(vii) Liens placed upon equipment or machinery used in the ordinary course of business of the Borrower or any of its Subsidiaries and placed at the time of the acquisition thereof by the Borrower or such Subsidiary or within 180 days thereafter to secure Indebtedness incurred to pay all or a portion of the purchase price thereof or to secure Indebtedness incurred solely for the purpose of financing the acquisition of any such equipment or machinery or extensions, renewals or replacements of any of the foregoing for the same or a lesser amount, provided that (x) the Indebtedness secured by such Liens is permitted by Section 8.4 and (y) in all events, the Lien encumbering the equipment or machinery so acquired does not encumber any other asset of the Borrower or such Subsidiary;

(viii) easements, rights-of-way, restrictions, encroachments and other similar charges or encumbrances, and minor title deficiencies, in each case not securing Indebtedness and not materially interfering with the conduct of the business of the Borrower or any of its Subsidiaries;

(ix) Liens arising from precautionary Uniform Commercial Code financing statement filings regarding operating leases entered into in the ordinary course of business;

(x) Liens arising out of the existence of judgments or decrees (but excluding consensual Liens granted by the Borrower or any of its Subsidiaries on any of their assets) that do not constitute an Event of Default under Section 9.1(g);

(xi) statutory and common law landlords' liens under leases to which the Borrower or any of its Subsidiaries is a party;

(xii) Liens (other than Liens imposed under ERISA) incurred in the ordinary course of business in connection with workers compensation claims, unemployment insurance and social security benefits and Liens securing the performance of bids, tenders, leases and contracts in the ordinary course of business, statutory obligations, surety bonds, performance, completion and guarantee bonds and other obligations of a like nature incurred in the ordinary course of business and consistent with past practice (exclusive of obligations in respect of the payment for borrowed money);

(xiii) Liens on property or assets acquired by the Borrower or any of its Subsidiaries in existence at the time such property or asset is acquired by the Borrower or such Subsidiary (including by the merger or acquisition of any Person), provided that (x) any Indebtedness that is secured by such Liens is permitted to exist under Section 8.4, and (y) such Liens are not incurred in connection with, or in contemplation or anticipation of, such merger or acquisition and do not attach to any other asset of the Borrower or any of its Subsidiaries;

(xiv) Liens arising out of any conditional sale, title retention, consignment or other similar arrangements for the sale of goods entered into by the Borrower or any of its Subsidiaries in the ordinary course of business to the extent such Liens do not attach to any assets other than the goods subject to such arrangements;

(xv) Liens (x) incurred in the ordinary course of business in connection with the purchase or shipping of goods or assets (or the related assets and proceeds thereof), which Liens are in favor of the seller or shipper of such goods or assets and only attach to such goods or assets, (y) incurred in the ordinary course of business in connection with property owned by third parties installed to provide energy or oxygen at the facilities of the Borrower and its Subsidiaries pursuant to any supply arrangement or operating lease (but not pursuant to a Capital Lease) and (z) in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;

(xvi) bankers' Liens, rights of setoff and other similar Liens existing solely with respect to cash and Cash Equivalents on deposit in one or more accounts maintained by the Borrower or any Subsidiary, in each case granted in the ordinary course of business in favor of the bank or banks with which such accounts are maintained, securing amounts owing to such bank or banks with respect to cash management and operating account arrangements;

(xvii) Liens created on assets transferred to an SPV pursuant to Asset Securitizations (which assets shall be of the types described in the definition of Asset Securitization contained herein), securing Attributable Securitization Indebtedness permitted to be outstanding pursuant to Section 8.4(v); and

(xviii) additional Liens of the Borrower or any Subsidiary of the Borrower not otherwise permitted by this Section 8.1, so long as the aggregate amount (exclusive of regularly accruing interest or similar amounts which are paid on a current basis) of obligations secured by Liens permitted pursuant to this Section 8.1(xviii) does not exceed \$300,000,000 at any time.

SECTION 8.2 Consolidation, Merger, Purchase or Sale of Assets, etc. . The Borrower will not, and will not permit any of its Subsidiaries to, wind up, liquidate or dissolve its affairs or enter into any transaction of merger or consolidation, or convey, sell, lease or otherwise dispose of all or any part of its property or assets (other than sales of inventory, raw materials, supplies and used or surplus equipment, in each case in the ordinary course of business), or enter into any sale-leaseback transactions, or purchase or otherwise acquire (in one or a series of related transactions) all or substantially all of the Equity Interests in or assets of any Person (each such purchase or acquisition, an “Acquisition”) (or agree to do any of the foregoing at any future time), except that:

(i) each of the Borrower and any of its Subsidiaries may liquidate or otherwise dispose of obsolete or worn-out property in the ordinary course of business, and may dissolve, liquidate or merge out of existence a Subsidiary, the continued existence of which is no longer materially advantageous to the Borrower or its Subsidiaries;

(ii) each of the Borrower and any of its Subsidiaries may sell assets including pursuant to a transaction of merger or consolidation, including the Equity Interests of a Subsidiary of the Borrower so long as (x) no Default or Event of Default then exists or would result therefrom, (y) in the case of the sale of the Equity Interests of any Credit Party, all of the Equity Interests of such Credit Party and its other Subsidiaries are sold pursuant to such sale and (z) the Fair Market Value of such assets when added to the Fair Market Value of all assets sold pursuant to this clause (ii) of the Borrower and its Subsidiaries previously sold pursuant to this Section 8.2(ii), does not exceed \$350,000,000 in any Fiscal Year;

(iii) each of the Borrower and any of its Subsidiaries may sell or discount, in each case without recourse and in the ordinary course of business, accounts receivable arising in the ordinary course of business, but only in connection with the compromise or collection thereof and, subject to Section 8.2(vii), not as part of any financing transaction;

(iv) each of the Borrower and any of its Subsidiaries may grant licenses, sublicenses, leases or subleases to other Persons not materially interfering with the conduct of the business of the Borrower or any of its Subsidiaries;

(v) each of the Borrower and any of its Subsidiaries may convey, lease, rent, sell or otherwise transfer all or any part of its business, properties and assets to the Borrower or to any other Subsidiary of the Borrower;

(vi) each of the Borrower and any of its Subsidiaries may merge or consolidate with and into, be dissolved or liquidated into, or amalgamate with any other Person, so long as (i) in the case of any such merger, consolidation, dissolution, liquidation or amalgamation involving the Borrower, the Borrower is the surviving or continuing entity of any such merger, consolidation, dissolution, liquidation or amalgamation and such entity is a U.S. Person and (ii) in all other cases, the surviving or continuing corporation of any such merger, consolidation, dissolution, liquidation or amalgamation is a Subsidiary of the Borrower;

(vii) each of the Borrower and any of its Subsidiaries party to an Asset Securitization may sell accounts and related general intangibles, chattel paper, instruments, security and collections with respect thereto pursuant to such Asset Securitization (after the execution thereof), so long as (x) each such sale is in an arm’s-length transaction and on terms consistent with prevailing market conditions for similar transactions at such time and (y) the aggregate Attributable Securitization Indebtedness shall not exceed \$400,000,000 at any time outstanding;

(viii) each of the Borrower and any of its Subsidiaries may liquidate or otherwise dispose of Cash Equivalents in the ordinary course of business;

(ix) each of the Borrower and any of its Subsidiaries may consummate an Acquisition, so long as no Default or Event of Default shall have occurred and be continuing at the time of the consummation of the proposed Acquisition or immediately after giving effect thereto (each such Acquisition, a “Permitted Acquisition”);

(x) each of the Borrower and any of its Subsidiaries may transfer and dispose of inventory, raw materials, equipment, Real Property and other tangible assets in exchange for consideration comprised of inventory, raw materials, supplies, used or surplus equipment, Real Property and other tangible assets or some combination thereof, in each case in the ordinary course of business, so long as (x) no Default or Event of Default then exists or would result therefrom and (y) the book value of such assets at the time of the consummation

of such sale, when added to the book value of all assets of the Borrower and its Subsidiaries previously sold pursuant to this Section 8.2(x), does not exceed \$250,000,000 at any time; and

(xi) each of the Borrower and any of its Subsidiaries may sell, transfer or convey raw materials, equipment, Real Property and other tangible assets to the extent that the Net Sale Proceeds therefrom are used to acquire replacement raw materials, equipment, real property and other tangible assets within 270 days after receipt of such Net Sale Proceeds (and in the case of any contractual commitment to so apply such Net Sale Proceeds entered into within such 270 day period, within 360 days after receipt of such Net Sale Proceeds).

SECTION 8.3 Dividends. The Borrower will not, and will not permit any of its Subsidiaries to, authorize, declare or pay any Dividends with respect to the Borrower or any of its Subsidiaries, except that:

(i) (x) any Subsidiary of the Borrower may pay Dividends to the Borrower or to any Wholly-Owned Subsidiary of the Borrower and (y) any Non-Wholly Owned Subsidiary of the Borrower may pay cash dividends to its shareholders generally so long as the Borrower or its respective Subsidiary which owns the Equity Interests in the Subsidiary paying such Dividends receives at least its proportionate share thereof (based upon its relative holding of the Equity Interests in the Subsidiary paying such Dividends and taking into account the relative preferences, if any, of the various classes of Equity Interests of such Subsidiary); and

(ii) the Borrower and its Subsidiaries may authorize, declare and pay any other cash Dividend so long as (x) no Default or Event of Default exists at the time of such authorization, declaration or payment or would exist immediately after giving effect thereto and (y) such authorization, declaration or payment will not violate (I) any provision of the certificate or articles of incorporation, certificate of formation, limited liability company agreement or by-laws (or equivalent organizational documents), as applicable, of such Person or (II) any material agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to such Person.

SECTION 8.4 Indebtedness. The Borrower will not, and will not permit any of its Subsidiaries to contract, create, incur, assume or suffer to exist any Indebtedness, except:

(i) unsecured Indebtedness of the Credit Parties so long as, on the date of the respective incurrence thereof, no Default or Event of Default then exists or would result therefrom;

(ii) unsecured Indebtedness of the Non-Guarantor Subsidiaries so long as (x) on the date of the respective incurrence thereof, no Default or Event of Default then exists or would result therefrom and (y) the aggregate principal amount of all such outstanding Indebtedness, (I) does not exceed \$400,000,000 at any time and (II) when added to the aggregate principal amount of all outstanding Indebtedness incurred by the Borrower and its Subsidiaries pursuant to Section 8.4(iii), does not exceed \$600,000,000 at any time;

(iii) secured Indebtedness of the Borrower and its Subsidiaries so long as (x) on the date of the respective incurrence thereof no Default or Event of Default then exists or would result therefrom and (y) the aggregate principal amount of all such outstanding Indebtedness, (I) does not exceed \$300,000,000 at any time and (II) when added to the aggregate principal amount of all outstanding Indebtedness incurred by the Non-Guarantor Subsidiaries pursuant to Section 8.4(ii), does not exceed \$600,000,000 at any time;

(iv) Indebtedness of the Borrower and its Subsidiaries incurred to finance fixed or capital assets or evidenced by Capitalized Lease Obligations and purchase money Indebtedness described in Section 8.1(vi) or (vii), provided that in no event shall the sum of the aggregate principal amount of all such Indebtedness permitted by this Section 8.4(iv) (as measured on the date of each incurrence pursuant to this Section 8.4(iv)) exceed 5% of Consolidated Net Tangible Assets of the Borrower and its Subsidiaries as of the last day of the last Fiscal Year for which financial statements have been delivered pursuant to Section 7.1(b);

(v) Attributable Securitization Indebtedness incurred under or in connection with any Asset Securitization in an aggregate principal amount not to exceed \$400,000,000 at any time outstanding;

(vi) Indebtedness constituting Intercompany Loans, to the extent permitted pursuant to Section 8.5 (and subject to the requirements, if applicable, of Section 8.11);

(vii) Indebtedness consisting of guaranties or Contingent Obligations by the Borrower and its Subsidiaries of each other's Indebtedness and lease and other obligations permitted under this Agreement; provided that no Non-Guarantor Subsidiaries shall be permitted to furnish a guarantee (except to the extent such guarantee is permitted pursuant to Section 8.4(ii)) or Contingent Obligation in respect, or in support, of any Indebtedness or lease or other obligations of the Borrower or any other Credit Party;

(viii) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business, so long as such Indebtedness is extinguished within four Business Days of its incurrence;

(ix) Indebtedness of the Borrower and its Subsidiaries with respect to performance bonds, surety bonds, completion bonds, guaranty bonds, appeal bonds or customs bonds required in the ordinary course of business or in connection with the enforcement of rights or claims of the Borrower or any of its Subsidiaries or in connection with judgments that do not result in a Default or an Event of Default;

(x) Indebtedness of the Borrower or any of its Subsidiaries which may be deemed to exist in connection with agreements providing for indemnification, purchase price adjustments and similar obligations in connection with the acquisition or disposition of assets in accordance with the requirements of this Agreement, so long as any such obligations are those of the Person making the respective acquisition or sale, and are not guaranteed by any other Person except as permitted by Section 8.4(vii);

(xi) Indebtedness of the Borrower and its Subsidiaries existing on the Closing Date (but excluding the Obligations) and extensions, renewals, replacements and refinancings of any such Indebtedness that do not (I) increase the outstanding principal amount thereof (except by the amount of any premium or fee paid or payable in connection with such extension, renewal or replacement) unless otherwise permitted pursuant to another provision of this Section 8.4, (II) have any additional obligors or guarantors with respect thereto unless otherwise permitted pursuant to another provision of this Section 8.4 or (III) have any additional Liens to secure such Indebtedness; and

(xii) Indebtedness of the Borrower and its Subsidiaries in respect of letters of credit obtained or deposits made in order to provide security for workers' compensation claims or pension plans, payment obligations in connection with self-insurance or pursuant to statutory obligations, in each case in the ordinary course of business.

SECTION 8.5 Advances, Investments and Loans. The Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, lend money or credit or make advances to any Person, or purchase or acquire any stock, obligations or securities of, or any other Equity Interest in, or make any capital contribution to, any other Person, or enter into any partnership or joint venture, or purchase or own a futures contract or otherwise become liable for the purchase or sale of currency or other commodities at a future date in the nature of a futures contract (each of the foregoing an "Investment"), except that the following shall be permitted:

(i) the Borrower and its Subsidiaries may acquire and hold accounts receivables owing to any of them, if created or acquired in the ordinary course of business and payable or dischargeable in accordance with customary trade terms of the Borrower or such Subsidiary;

(ii) the Borrower and its Subsidiaries may hold the Investments held by them on the Closing Date, provided that any additional Investments made with respect thereto shall be permitted only if permitted under the other provisions of this Section 8.5;

(iii) the Borrower and its Subsidiaries may acquire and own investments (including debt obligations) received in connection with the bankruptcy or reorganization of suppliers and customers and in good faith settlement of delinquent obligations of, and other disputes with, customers and suppliers arising in the ordinary course of business;

(iv) the Borrower and its Subsidiaries may make loans and advances to their officers and employees for moving, relocation and travel expenses and other similar expenditures, in each case in the ordinary course of business;

(v) the Borrower and its Subsidiaries may acquire and hold obligations of their officers and employees in connection with such officers' and employees' acquisition of shares of Borrower Common Stock (so long as no cash is actually advanced by the Borrower or any of its Subsidiaries in connection with the acquisition of such obligations);

(vi) the Borrower and its Subsidiaries may enter into (x) Interest Rate Protection Agreements entered into with respect to other Indebtedness permitted under Section 8.4 and (y) Other Hedging Agreements entered into in the ordinary course of business and providing protection to the Borrower and its Subsidiaries against fluctuations in currency values or commodity prices in connection with the Borrower or any of its Subsidiaries' operations, in either case so long as the entering into of such Interest Rate Protection Agreements or Other Hedging Agreements are bona fide hedging activities and are not for speculative purposes;

(vii) the Borrower, the other Credit Parties and their respective Subsidiaries may make intercompany loans and advances to each other (such intercompany loans and advances, collectively, the "Intercompany Loans");

(viii) (I) the Borrower and the other Credit Parties may make capital contributions to, or acquire Equity Interests of, any other Credit Party, (II) the Borrower and the other Credit Parties may make capital contributions to, or acquire Equity Interests of, Non-Guarantor Subsidiaries and Persons that are not Subsidiaries of the Borrower, and may capitalize or forgive any Indebtedness owed to them by any Non-Guarantor Subsidiary and outstanding under Section 8.5(vii), and (III) any Non-Wholly-Owned Subsidiary may make capital contributions to, or acquire Equity Interests of, any other Non-Guarantor Subsidiary, and may capitalize or forgive any Indebtedness owed to it by a Non-Guarantor Subsidiary; provided that no contribution, capitalization or forgiveness may be made pursuant to preceding subclause (II) at any time that a Default or an Event of Default has occurred and is continuing;

(ix) Contingent Obligations permitted by Section 8.4, to the extent constituting Investments;

(x) Permitted Acquisitions shall be permitted in accordance with the requirements of Section 8.2;

(xi) the Borrower and its Subsidiaries may receive and hold promissory notes and other non-cash consideration received in connection with any asset sale permitted by Section 8.2(ii);

(xii) the Borrower and its Subsidiaries may make advances in the form of a prepayment of expenses to vendors, suppliers and trade creditors consistent with their past practices, so long as such expenses were incurred in the ordinary course of business of the Borrower or such Subsidiary;

(xiii) the Borrower and its Subsidiaries may make and hold Investments in Cash Equivalents; and

(xiv) the Borrower and its Subsidiaries may make, hold and enter into additional Investments so long as, at the time of making such Investment, no Default or Event of Default then exists or would result therefrom.

SECTION 8.6 Transactions with Affiliates. The Borrower will not, and will not permit any of its Subsidiaries to, enter into any transaction or series of related transactions with any Affiliate of the Borrower or any of its Subsidiaries (other than the Borrower and its Subsidiaries and any Person that is an Affiliate solely as a result of the ownership by the Borrower or any of its Subsidiaries of the Equity Interests of such Person) other than in the ordinary course of business and on terms and conditions substantially as favorable or more favorable to the Borrower or such Subsidiary as would reasonably be obtained by the Borrower or such Subsidiary at that time in a comparable arm's-length transaction with a Person other than an Affiliate, except that the following in any event shall be permitted:

(i) customary fees, indemnities and reimbursements may be paid to non-officer directors of the Borrower and its Subsidiaries and loans and advances permitted by Section 8.5(iv);

(ii) the Borrower may issue Borrower Common Stock and Qualified Preferred Stock; and

(iii) the Borrower and its Subsidiaries may enter into, and may make payments under, employment agreements, employee benefits plans, stock option plans, indemnification provisions and other similar compensatory arrangements with officers, employees and directors of the Borrower and its Subsidiaries in the ordinary course of business.

SECTION 8.7 Interest Expense Coverage Ratio. The Borrower will not permit the Interest Expense Coverage Ratio for any Test Period ending on the last day of a Fiscal Quarter to be less than 2.25:1.00; provided that compliance with this Section 8.7 for each Test Period shall be determined on the earlier to occur of (x) the date upon which the Borrower delivers financial statements for the last Fiscal Quarter of such Test Period pursuant to Section 7.1(a) or (b) (in which case such compliance shall be determined based upon such delivered financial statements) and (y) the thirtieth (30th) day after the last day of the last Fiscal Quarter of such Test Period (in which case such compliance shall be determined based upon internally prepared financial statements of the Borrower and its Subsidiaries on such date and shall then also be determined on the date described in preceding clause (x) based upon the delivered financial statements described in preceding clause (x)); provided further, that if at any time subsequent to the delivery of any such financial statements described above with respect to any Test Period, there are subsequent adjustments thereto (or to the financial results described therein), such subsequent adjustments shall be given full force and effect.

SECTION 8.8 Leverage Ratio. The Borrower will not permit the ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization at any time to exceed 0.60:1.00; provided that for determining compliance with this Section 8.8 at any time, (x) in calculating Consolidated Total Capitalization, Consolidated Net Worth shall be determined based upon the financial statements most recently delivered to the Administrative Agent pursuant to Section 7.1(a) or (b), unless the Borrower has not delivered such financial statements within 30 days of the last day of the most recently ended Fiscal Quarter, in which case Consolidated Net Worth shall be determined based upon internally prepared financial statements of the Borrower and its Subsidiaries until such time as the Borrower delivers financial statements for such Fiscal Quarter to the Administrative Agent pursuant to Section 7.1(a) or (b) for such Fiscal Quarter (at which time Consolidated Net Worth shall be determined based upon such delivered financial statements), provided that if at any time subsequent to the delivery of any such financial statements described above, there are subsequent adjustments thereto (or to the financial results described therein), such subsequent adjustments shall be given full force and effect and (y) Consolidated Total Indebtedness shall be the actual Consolidated Total Indebtedness at such time. In determining the ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization at any time, actual Consolidated Total Indebtedness on the respective date of determination shall be used, with Consolidated Net Worth to be determined based on the last available calculation of Consolidated Net Worth as calculated pursuant to the proviso to the immediately preceding sentence; provided, further, that such Consolidated Net Worth shall be adjusted for any issuance of Equity Interests of the Borrower and for any Dividends actually paid by the Borrower and/or its respective Subsidiaries (to Persons other than the Borrower and Subsidiaries thereof), after the date of the respective calculation of Consolidated Net Worth and on or prior to the date of the next determination of Consolidated Net Worth as described above.

SECTION 8.9 Modifications of Certain Agreements. The Borrower will not, and will not permit any of its Subsidiaries to amend or modify, or permit the amendment or modification of, any provision of any Senior Notes Document in a manner materially adverse to the interests of the Lenders (in their capacity as Lenders).

SECTION 8.10 Limitation on Certain Restrictions on Subsidiaries. The Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, create or otherwise cause or suffer to exist or become effective any encumbrance or restriction on the ability of any such Subsidiary to (a) pay dividends or make any other distributions on its capital stock or any other Equity Interest or participation in its profits owned by the Borrower or any of its Subsidiaries, or pay any Indebtedness owed to the Borrower or any of its Subsidiaries, (b) [reserved] or (c) transfer any of its properties or assets to the Borrower or any of its Subsidiaries, except for such encumbrances or restrictions existing under or by reason of (i) applicable law, (ii) this Agreement and the other Loan Documents, (iii) the Senior Notes Documents, (iv) customary provisions restricting subletting or assignment of any lease governing any leasehold interest of the Borrower or any of its Subsidiaries, (v) customary provisions restricting assignment of any licensing agreement (in which the Borrower or any of its Subsidiaries is the licensee) or other contract entered into by the Borrower or any of its Subsidiaries in the ordinary course of business, (vi) restrictions on the transfer of any asset pending the close of the sale of such asset, (vii) restrictions on the transfer of any asset subject to a Lien permitted by Section 8.1(iii), (vi), (vii), (xi), (xii), (xiii), (xiv), (xv), (xvi), (xvii) or (xviii); or (viii) with respect to any Non-Wholly Owned Subsidiary, any agreement requiring the consent of each Person holding Equity Interests in such Non-Wholly Owned Subsidiary for such Non-Wholly Owned Subsidiary to pay dividends or make any other distributions on its capital stock or any other Equity Interests.

ARTICLE IX

DEFAULT AND REMEDIES

SECTION 9.1 Events of Default. Each of the following specified events shall constitute an “Event of Default”:

(a) Payments. The Borrower shall default in the payment when due (whether at maturity, by reason of acceleration or otherwise) of (a) principal of any Term Loan or any Term Loan Note or (b) any interest on any Term Loan or any Term Loan Note, any fees or any other amounts owing hereunder or under any other Loan Documents and such default described in this clause (b) shall continue unremedied for five or more Business Days; or

(b) Representations, etc. Any representation, warranty or statement made or deemed made by any Credit Party herein or in any other Loan Document or in any certificate delivered to the Administrative Agent or any Lender pursuant hereto or thereto shall prove to be untrue in any material respect on the date as of which made or deemed made; or

(c) Covenants. The Borrower or any of its Subsidiaries shall (i) default in the due performance or observance by it of any term, covenant or agreement contained in Section 7.1(e)(i), 7.4 (with respect to the existence of the Borrower), 7.8 or 7.10 or Article VIII or (ii) default in the due performance or observance by it of any other term, covenant or agreement contained in this Agreement (other than those set forth in Sections 9.1(a) and 9.1(b)) or any other Loan Document and such default shall continue unremedied for a period of 30 days after written notice thereof to the defaulting party by the Administrative Agent or any Lender; or

(d) Default Under Other Agreements. (i) The Borrower or any of its Subsidiaries shall (x) default in any payment of any Indebtedness (other than the Obligations) beyond the period of grace, if any, provided in an instrument or agreement under which such Indebtedness was created or (y) default in the observance or performance of any agreement or condition relating to any Indebtedness (other than the Obligations) or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event shall occur or condition exist, the effect of which default or other event or condition is to cause, or to permit the holder or holders of such Indebtedness (or a trustee or agent on behalf of such holder or holders) to cause (determined without regard to whether any notice is required, but after giving effect to any applicable grace periods), any such Indebtedness to become due prior to its stated maturity, or (ii) any Indebtedness (other than the Obligations) of the Borrower or any of its Subsidiaries shall be declared to be (or shall become) due and payable, or required to be prepaid other than by a regularly scheduled required prepayment, prior to the stated maturity thereof, provided that it shall not be a Default or an Event of Default under this Section 9.1(d) unless (A) the aggregate principal amount of all Indebtedness as described in preceding clauses (i) and (ii) is at least \$75,000,000 or (B) the Indebtedness described in preceding clauses (i) and (ii) arises under the Revolving Credit Agreement or the 364-Day Term Loan Agreement; or

(e) Bankruptcy, etc. The Borrower or any other Credit Party shall commence a voluntary case concerning itself under Title 11 of the United States Code entitled “Bankruptcy,” as now or hereafter in effect, or any successor thereto (the “Bankruptcy Code”); or an involuntary case is commenced against the Borrower or any other Credit Party, and the petition is not dismissed within sixty days after the filing thereof, provided, however, that during the pendency of such period, each Lender shall be relieved of its obligation to extend credit hereunder; or a custodian (as defined in the Bankruptcy Code) is appointed for, or takes charge of, all or substantially all of the property of the Borrower or other Credit Party, to operate all or any substantial portion of the business of the Borrower or any other Credit Party, or the Borrower or any other Credit Party commences any other proceeding under any reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency or liquidation or similar law of any jurisdiction whether now or hereafter in effect relating to the Borrower or any other Credit Party, or there is commenced against the Borrower or any other Credit Party any such proceeding which remains undismissed for a period of sixty days after the filing thereof, or the Borrower or any other Credit Party is adjudicated insolvent or bankrupt; or any order of relief or other order approving any such case or proceeding is entered; or the Borrower or any other Credit Party makes a general assignment for the benefit of creditors; or any Company action is taken by the Borrower or any other Credit Party for the purpose of effecting any of the foregoing; or

(f) ERISA. If (i) any Plan shall fail to satisfy the minimum funding standards of Section 302 of ERISA or Section 412 of the Code for any plan year or part thereof or a waiver of such standards or extension of any amortization period is sought or granted under section 412 of the Code, (ii) a notice of intent to terminate any Plan shall have been or is reasonably expected to be filed with the PBGC or the PBGC shall have instituted proceedings under ERISA section 4042 to terminate or appoint a trustee to administer any Plan or the PBGC shall have notified the Borrower or any ERISA Affiliate that a Plan may become a subject of any such proceedings, (iii) there is an “amount of unfunded benefit liabilities” (within the meaning of section 4001(a)(18) of ERISA) under any Plan, determined in accordance with Title IV of ERISA, or an amount (if any) by which the present value of accrued benefit liabilities under any Non-U.S. Plan exceeds the aggregate current value of the assets of such Non-U.S. Plan allocable to such liabilities, (iv) the Borrower or any ERISA Affiliate shall have incurred or is reasonably expected to incur any liability pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans, (v) the Borrower or any ERISA Affiliate withdraws from any Multiemployer Plan, (vi) the Borrower or any ERISA Affiliate establishes or amends any employee welfare benefit plan that provides post-employment welfare benefits in a manner that would increase the liability of the Borrower, or (vii) the Borrower fails to administer or maintain a Plan or Non-U.S. Plan in compliance with the requirements of any and all applicable laws, statutes, rules, regulations or court orders or any Plan or Non-U.S. Plan is involuntarily terminated or wound up, or (viii) the Borrower, any of its Subsidiaries, or any ERISA Affiliate becomes subject to the imposition of a financial penalty (which for this purpose shall mean any tax, penalty, or other liability, whether by way of indemnity or otherwise) with respect to one or more Plan or Non-U.S. Plan; and any such event or events described in clauses (i) through (viii) above, either individually or together with any other such event or events, could reasonably be expected to have a Material Adverse Effect. As used in Section 9.1(f), the terms “employee benefit plan” and “employee welfare benefit plan” shall have the respective meanings assigned to such terms in Section 3 of ERISA, the term “benefit liabilities” has the meaning specified in Section 4001 of ERISA; or

(g) Judgments. One or more judgments or decrees shall be entered against the Borrower or any Subsidiary of the Borrower involving in the aggregate for the Borrower and its Subsidiaries a liability (not paid or to the extent not covered by a reputable and solvent insurance company) and such judgments and decrees either shall be final and non-appealable or shall not be vacated, discharged or stayed or bonded pending appeal for any period of 30 consecutive days, and the aggregate amount of all such judgments equals or exceeds \$75,000,000; or

(h) Change of Control. A Change of Control shall occur; or

(i) Subsidiary Guaranty Agreement. The Subsidiary Guaranty Agreement shall cease to be in full force or effect (except in accordance with the terms thereof) as to the relevant Subsidiary Guarantor, or any Subsidiary Guarantor or Person acting by or on behalf of such Subsidiary Guarantor shall deny or disaffirm such Subsidiary Guarantor’s obligations under the Subsidiary Guaranty Agreement.

SECTION 9.2 Remedies. Upon the occurrence of an Event of Default, with the consent of the Required Lenders, the Administrative Agent may, or upon the request of the Required Lenders, the Administrative Agent shall, by notice to the Borrower:

(a) Acceleration; Termination of Term Loan Facility.

(i) Terminate the Term Loan Commitments and declare the principal of and interest on the Term Loans at the time outstanding, and all other amounts owed to the Lenders and to the Administrative Agent under this Agreement or any of the other Loan Documents and all other Obligations, to be forthwith due and payable, whereupon the same shall immediately become due and payable without presentment, demand, protest or other notice of any kind, all of which are expressly waived by each Credit Party, anything in this Agreement or the other Loan Documents to the contrary notwithstanding, and terminate the Term Loan Facility; provided, that upon the occurrence of an Event of Default specified in Section 9.1(e), the Term Loan Facility shall be automatically terminated and all Obligations shall automatically become due and payable without presentment, demand, protest or other notice of any kind, all of which are expressly waived by each Credit Party, anything in this Agreement or in any other Loan Document to the contrary notwithstanding; and

(ii) exercise on behalf of the Guaranteed Creditors all of its other rights and remedies under this Agreement, the other Loan Documents and Applicable Law, in order to satisfy all of the Obligations.

(b) [Reserved].

(c) Rights of Collection. Exercise on behalf of the Lenders all of its other rights and remedies under this Agreement, the other Loan Documents and Applicable Law, in order to satisfy all of the Borrower's Obligations.

SECTION 9.3 Rights and Remedies Cumulative; Non-Waiver; etc. The enumeration of the rights and remedies of the Administrative Agent and the Lenders set forth in this Agreement is not intended to be exhaustive and the exercise by the Administrative Agent and the Lenders of any right or remedy shall not preclude the exercise of any other rights or remedies, all of which shall be cumulative, and shall be in addition to any other right or remedy given hereunder or under the other Loan Documents or that may now or hereafter exist at law or in equity or by suit or otherwise. No delay or failure to take action on the part of the Administrative Agent or any Lender in exercising any right, power or privilege shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power or privilege preclude any other or further exercise thereof or the exercise of any other right, power or privilege or shall be construed to be a waiver of any Event of Default. No course of dealing between the Borrower, the Administrative Agent and the Lenders or their respective agents or employees shall be effective to change, modify or discharge any provision of this Agreement or any of the other Loan Documents or to constitute a waiver of any Event of Default.

SECTION 9.4 Crediting of Payments and Proceeds. In the event that the Obligations have been accelerated pursuant to Section 9.2 or the Administrative Agent or any Lender has exercised any remedy set forth in this Agreement or any other Loan Document, all payments received by the Lenders upon the Obligations and all net proceeds from the enforcement of the Obligations shall be applied:

First, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (other than principal and interest), including reasonable and documented attorney's fees, payable to the Administrative Agent in its capacity as such;

Second, to payment of that portion of the Obligations constituting fees, indemnities and other amounts (other than principal and interest) payable to the Lenders under the Loan Documents, including reasonable and documented attorney's fees (ratably among the Lenders in proportion to the respective amounts described in this clause Second payable to them);

Third, to payment of that portion of the Obligations constituting accrued and unpaid interest on the Term Loans (ratably among the Lenders in proportion to the respective amounts described in this clause Third payable to them);

Fourth, to payment of that portion of the Obligations constituting unpaid principal of the Term Loans; and

Last, the balance, if any, after all of the Obligations have been indefeasibly paid in full, to the Borrower or as otherwise required by Applicable Law.

SECTION 9.5 Administrative Agent May File Proofs of Claim. During any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to any Credit Party, the Administrative Agent (irrespective of whether the principal of any Term Loan shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Borrower) shall be entitled and empowered, by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Term Loans and all other Obligations arising under the Loan Documents that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders and the Administrative Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders and the Administrative Agent and their respective agents and counsel

and all other amounts due the Lenders and the Administrative Agent under Sections 4.3 and 11.3) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Lenders, to pay to the Administrative Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Administrative Agent and its agents and counsel, and any other amounts due the Administrative Agent under Sections 4.3 and 11.3.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Lender any plan of reorganization, arrangement, adjustment or composition affecting the Obligations or the rights of any Lender or to authorize the Administrative Agent to vote in respect of the claim of any Lender in any such proceeding.

ARTICLE X

THE ADMINISTRATIVE AGENT

SECTION 10.1 Appointment and Authority. Each of the Lenders hereby irrevocably designates and appoints JPMorgan to act on its behalf as the Administrative Agent hereunder and under the other Loan Documents and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this Article are solely for the benefit of the Administrative Agent and the Lenders, and neither the Borrower nor any Subsidiary thereof shall have rights as a third party beneficiary of any of such provisions.

SECTION 10. Rights as a Lender. The Person serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent and the term "Lender" or "Lenders" shall, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as the Administrative Agent hereunder in its individual capacity. Such Person and its Affiliates may accept deposits from, lend money to, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Borrower or any Subsidiary or other Affiliate thereof as if such Person were not the Administrative Agent hereunder and without any duty to account therefor to the Lenders.

SECTION 10.3 Exculpatory Provisions. The Administrative Agent shall not have any duties or obligations except those expressly set forth herein and in the other Loan Documents. Without limiting the generality of the foregoing, the Administrative Agent:

(a) shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;

(b) shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that the Administrative Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be expressly provided for herein or in the other Loan Documents), provided that the Administrative Agent shall not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Administrative Agent to liability or that is contrary to any Loan Document or Applicable Law; and

(c) shall not, except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to the Borrower or any

of its Affiliates that is communicated to or obtained by the Person serving as the Administrative Agent or any of its Affiliates in any capacity.

The Administrative Agent shall not be liable for any action taken or not taken by it (i) with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Section 11.2) or (ii) in the absence of its own gross negligence or willful misconduct as determined by a court of competent jurisdiction by final nonappealable judgment. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until written notice describing such Default is given to the Administrative Agent by the Borrower or a Lender.

The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document or (v) the satisfaction of any condition set forth in Article V or elsewhere herein, other than (A) to confirm receipt of items expressly required to be delivered to the Administrative Agent and (B) with respect to any condition set forth in Article V, the satisfaction of which requires that an item be satisfactory to the Administrative Agent, to confirm whether such item is satisfactory to it.

SECTION 10.4 Reliance by the Administrative Agent. The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Term Loan that by its terms must be fulfilled to the satisfaction of a Lender, the Administrative Agent may presume that such condition is satisfactory to such Lender unless the Administrative Agent shall have received notice to the contrary from such Lender prior to the making of such Term Loan. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrower), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

SECTION 10.5 Delegation of Duties. The Administrative Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub agents appointed by the Administrative Agent. The Administrative Agent and any such sub agent may perform any and all of its duties and exercise its rights and powers by or through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub agent and to the Related Parties of the Administrative Agent and any such sub agent, and shall apply to their respective activities in connection with the syndication of the Facilities as well as activities as Administrative Agent.

SECTION 10.6 Resignation of Administrative Agent. Subject to the appointment and acceptance of a successor Administrative Agent as provided in this Section, the Administrative Agent may resign at any time by notifying the Lenders and the Borrower. Upon receipt of any such notice of resignation, the Required Lenders shall have the right, with the consent of the Borrower (which consent shall not be unreasonably withheld or delayed; provided, that the Borrower's consent shall not be required if an Event of Default under Section 9.1(a) or 9.1(e) then exists) to appoint a successor. If no such successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation, then the retiring Administrative Agent may on behalf of the Lenders, and with the consent of the Borrower (which consent shall not be unreasonably withheld or delayed; provided, that the Borrower's consent shall not be required if an Event of Default under Section 9.1(a) or 9.1(e) then exists), appoint a successor Administrative Agent which shall be a bank with an office in New York, New York, or an Affiliate of such bank. Upon the acceptance of a successor's appointment as

Administrative Agent hereunder, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Administrative Agent, and the retiring Administrative Agent shall be discharged from all of its duties and obligations hereunder or under the other Loan Documents (if not already discharged therefrom as provided above in this paragraph). The fees payable by the Borrower to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Borrower and such successor. After the retiring Administrative Agent's resignation hereunder and under the other Loan Documents, the provisions of this Article and Section 11.3 shall continue in effect for the benefit of such retiring Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while the retiring Administrative Agent was acting as Administrative Agent.

SECTION 10.7 Non-Reliance on Administrative Agent and Other Lenders. Each Lender acknowledges and agrees that the extensions of credit made hereunder are commercial loans and not investments in a business enterprise or securities. Each Lender further represents that it is engaged in making, acquiring or holding commercial loans in the ordinary course of its business and has, independently and without reliance upon the Administrative Agent, any arranger of the credit facilities evidenced by this Agreement or any other Lender and their respective Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement as a Lender, and to make, acquire or hold Term Loans hereunder. Each Lender shall, independently and without reliance upon the Administrative Agent, any arranger of the credit facilities evidenced by this Agreement or any amendment thereof or any other Lender and their respective Related Parties and based on such documents and information (which may contain material, non-public information within the meaning of the United States securities laws concerning the Borrower and its Affiliates) as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any related agreement or any document furnished hereunder or thereunder and in deciding whether or to the extent to which it will continue as a Lender or assign or otherwise transfer its rights, interests and obligations hereunder.

SECTION 10.8 No Other Duties, etc. Anything herein to the contrary notwithstanding, none of the syndication agents, documentation agents, co-agents, book manager, lead manager, arranger, lead arranger or co-arranger listed on the cover page or signature pages hereof shall have any powers, duties or responsibilities under this Agreement or any of the other Loan Documents, except in its capacity, as applicable, as the Administrative Agent or a Lender hereunder.

SECTION 10.9 Guaranty Matters. The Lenders irrevocably authorize the Administrative Agent, at its option and in its discretion to release any Subsidiary Guarantor from its obligations under the Subsidiary Guaranty Agreement and any other Loan Documents if such Person ceases to be a Subsidiary as a result of a transaction permitted hereunder or as otherwise permitted by the Subsidiary Guaranty Agreement. Upon request by the Administrative Agent at any time, the Required Lenders will confirm in writing the Administrative Agent's authority to release any Subsidiary Guarantor from its obligations under the Subsidiary Guaranty Agreement pursuant to this Section.

ARTICLE XI

MISCELLANEOUS

SECTION 11.1 Notices.

(a) Notices Generally. Except in the case of notices and other communications expressly permitted to be given by telephone (and except as provided in paragraph (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopier as follows:

If to the Borrower: Owens Corning
One Owens Corning Parkway
Toledo, Ohio 43659
Attention: Treasurer
Telephone No.: (419) 248-5482
Telecopy No.: (419) 325-1101

with copies to: Attention: Assistant Treasurer
Telephone No.: (419) 248-7380
Telecopy No.: (419) 325-3380

with copies to: Attention: General Counsel
Telephone No.: (419) 248-6350
Telecopy No.: (419) 248-6352

If to JPMorgan as
Administrative Agent: JPMorgan Chase Bank, N.A.
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

With copies to: JPMorgan Chase Bank, N.A.
383 Madison Avenue, FL 24
New York, New York 10179
Attention of: Katie Hurley
Telephone No.: (212) 270-7919
Telecopy No.: (212) 270-5100

If to any Lender: To the address set forth on the Register

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by telecopier shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through electronic communications to the extent provided in paragraph (b) below, shall be effective as provided in said paragraph (b).

(b) Electronic Communications. Notices and other communications to the Lenders hereunder may be delivered or furnished by electronic communication (including e-mail and Internet or intranet websites) pursuant to procedures approved by the Administrative Agent, provided that the foregoing shall not apply to notices to any Lender pursuant to Article II if such Lender has notified the Administrative Agent that it is incapable of receiving notices under such Article by electronic communication. The Administrative Agent or the Borrower may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it, provided that approval of such procedures may be limited to particular notices or communications.

Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), provided that if such notice or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient, and (ii) notices or communications posted to an Internet or

intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor.

(c) Administrative Agent's Office. The Administrative Agent hereby designates its office located at the address set forth above, or any subsequent office which shall have been specified for such purpose by written notice to the Borrower and Lenders, as the Administrative Agent's Office referred to herein, to which payments due are to be made and at which Term Loans will be disbursed.

(d) Change of Address, Etc. Any party hereto may change its address or telecopier number for notices and other communications hereunder by notice to the other parties hereto.

SECTION 11.2 Amendments, Waivers and Consents. Except as set forth below or as provided in Section 4.8(a)(ii) or as specifically provided in any Loan Document, any term, covenant, agreement or condition of this Agreement or any of the other Loan Documents may be amended, consented to or waived if, but only if, such amendment, consent or waiver is in writing and is signed by the Borrower and the Required Lenders (or by the Borrower and the Administrative Agent with the consent of the Required Lenders) and delivered to the Administrative Agent; provided, that no amendment, waiver or consent shall:

(a) increase the Term Loan Commitment of any Lender (or reinstate any Term Loan Commitment terminated pursuant to Section 9.2) or the amount of Term Loans of any Lender, in any case, without the written consent of such Lender;

(b) postpone any date fixed by this Agreement or any other Loan Document for any payment of principal, interest, fees or other amounts due to the Lenders (or any of them) hereunder or under any other Loan Document, without the written consent of each Lender directly and adversely affected thereby;

(c) reduce the principal of, or the rate of interest specified herein on, any Term Loan or (subject to clause (ii) of the second proviso to this Section) any fees or other amounts payable hereunder or under any other Loan Document without the written consent of each Lender directly and adversely affected thereby; provided that (i) only the consent of the Required Lenders shall be necessary to waive any obligation of the Borrower to pay interest at the rate set forth in Section 4.1(c) during the continuance of an Event of Default and (ii) any amendment entered into pursuant to the terms of Section 4.8(a)(ii) shall not constitute a reduction in the rate of interest or fees for purposes of this clause (c);

(d) change Section 4.6 or Section 9.4 in a manner that would alter the pro rata sharing of payments or order of payments required thereby without the written consent of each Lender directly and adversely affected thereby;

(e) except as otherwise permitted by this Section 11.2 change any provision of this Section or reduce the percentages specified in the definition of "Required Lenders" or any other provision hereof specifying the number or percentage of Lenders required to amend, waive or otherwise modify any rights hereunder or make any determination or grant any consent hereunder, without the written consent of each Lender;

(f) consent to the assignment or transfer by any Credit Party of such Credit Party's rights and obligations under any Loan Document to which it is a party (except as permitted pursuant to Section 8.2), in each case, without the written consent of each Lender;

(g) [Reserved]; or

(h) release all of the Subsidiary Guarantors or Subsidiary Guarantors with assets or operations constituting substantially all of the Consolidated Net Tangible Assets or Consolidated Net Income of the Borrower and its Subsidiaries, in any case, from the Subsidiary Guaranty Agreement (other than as authorized in Section 10.9), without the written consent of each Lender;

provided further, that (i) no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent in addition to the Lenders required above, affect the rights or duties of the Administrative Agent under this Agreement or any other Loan Document; and (ii) each Fee Letter may be amended, or rights or privileges thereunder waived, in a writing executed only by the parties thereto. Notwithstanding anything to the contrary herein, no Defaulting Lender shall have any right to approve or disapprove any amendment, waiver or consent hereunder, except that (A) the Term Loan Commitment of such Lender may not be increased

or extended without the consent of such Lender and (B) the maturity date of such Lender's Term Loans or other Obligations may not be extended without the consent of such Lender.

SECTION 11.3 Expenses; Indemnity.

(a) Costs and Expenses. The Borrower shall pay (i) all reasonable out of pocket expenses incurred by the Administrative Agent, the Joint Lead Arrangers and their respective Affiliates (including the reasonable fees, charges and disbursements of one primary counsel to the Administrative Agent and the Joint Lead Arrangers (and of such special and local counsel as the Administrative Agent may reasonably require and, in the case of an actual or perceived conflict of interest, one additional counsel to the affected Person), in connection with the syndication of the credit facilities provided for herein, the preparation, negotiation, execution, delivery and administration of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), and (ii) all out of pocket expenses incurred by the Administrative Agent or any Lender (including the reasonable fees, charges and disbursements of any counsel for the Administrative Agent or any Lender), in connection with the enforcement or protection of its rights (A) in connection with this Agreement and the other Loan Documents, including its rights under this Section, or (B) in connection with the Term Loans made hereunder, including all such out of pocket expenses incurred during any workout, restructuring or negotiations in respect of such Term Loans.

(b) Indemnification by the Borrower. The Borrower shall indemnify the Administrative Agent (and any sub-agent thereof), the Joint Lead Arrangers and each Lender, and each Related Party of any of the foregoing Persons (each such Person being called an "Indemnitee") against, and hold each Indemnitee harmless from, and shall pay or reimburse any such Indemnitee for, any and all losses, claims (including, without limitation, any Environmental Claims or civil penalties or fines assessed by OFAC), damages, liabilities and related expenses (including the fees, charges and disbursements of any counsel for any Indemnitee), incurred by any Indemnitee or asserted against any Indemnitee by any third party or by the Borrower or any other Credit Party arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument executed or delivered pursuant hereto or thereto, the performance by the parties hereto of their respective obligations hereunder or thereunder or the consummation of the transactions contemplated hereby or thereby, (ii) any Term Loan or the use or proposed use of the proceeds therefrom, (iii) any actual or alleged presence or Release of Hazardous Materials on or from any property owned or operated by any Credit Party or any Subsidiary thereof, or any Environmental Claim related in any way to any Credit Party or any Subsidiary, (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by any Credit Party or any Subsidiary thereof, and regardless of whether any Indemnitee is a party thereto, or (v) any claim (including, without limitation, any Environmental Claims or civil penalties or fines assessed by OFAC), investigation, litigation or other proceeding (whether or not the Administrative Agent or any Lender is a party thereto) and the prosecution and defense thereof, arising out of or in any way connected with the Term Loans, this Agreement, any other Loan Document, or any documents contemplated by or referred to herein or therein or the transactions contemplated hereby or thereby, including without limitation, reasonable and documented attorney's and consultant's fees, provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee.

(c) Reimbursement by Lenders. To the extent that the Borrower for any reason fails to indefeasibly pay any amount required under clause (a) or (b) of this Section to be paid by it to the Administrative Agent (or any sub-agent thereof) or any Related Party of any of the foregoing (and without limiting the Borrower's obligation to do so), each Lender severally agrees to pay to the Administrative Agent (or any such sub-agent) or such Related Party, as the case may be, such Lender's Term Loan Percentage (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought) of such unpaid amount, provided that the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Administrative Agent (or any such sub-agent) in its capacity as such, or against any Related Party of any of the foregoing acting for the Administrative Agent (or any such sub-agent)

in connection with such capacity. The obligations of the Lenders under this clause (c) are subject to the provisions of Section 4.7.

(d) Waiver of Consequential Damages, Etc. To the fullest extent permitted by Applicable Law, each of the Borrower and each other Credit Party shall not assert, and hereby waives, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument executed or delivered pursuant hereto or thereto, the transactions contemplated hereby or thereby, any Term Loan or the use of the proceeds thereof. No Indemnitee referred to in clause (b) above shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

(e) Payments. All amounts due under this Section shall be payable promptly after demand therefor.

SECTION 11.4 Right of Set Off. If an Event of Default shall have occurred and be continuing, each Lender and each of their respective Affiliates is hereby authorized at any time and from time to time, to the fullest extent permitted by Applicable Law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in whatever currency) at any time held and other obligations (in whatever currency) at any time owing by such Lender or any such Affiliate to or for the credit or the account of the Borrower or any other Credit Party against any and all of the obligations of the Borrower or such Credit Party now or hereafter existing under this Agreement or any other Loan Document to such Lender, irrespective of whether or not such Lender shall have made any demand under this Agreement or any other Loan Document and although such obligations of the Borrower or such Credit Party may be contingent or unmatured or are owed to a branch or office of such Lender different from the branch or office holding such deposit or obligated on such indebtedness. The rights of each Lender and its respective Affiliates under this Section are in addition to other rights and remedies (including other rights of setoff) that such Lender or its respective Affiliates may have. Each Lender agrees to notify the Borrower and the Administrative Agent promptly after any such setoff and application; provided that the failure to give such notice shall not affect the validity of such setoff and application.

SECTION 11.5 Governing Law; Jurisdiction, Etc.

(a) Governing Law. This Agreement and the other Loan Documents, unless expressly set forth therein, shall be governed by, construed and enforced in accordance with, the law of the State of New York (including Section 5-1401 and Section 5-1402 of the General Obligations Law of the State of New York), without reference to the conflicts or choice of law principles thereof.

(b) Submission to Jurisdiction. The Borrower irrevocably and unconditionally submits, for itself and its property, to the exclusive jurisdiction of the courts of the Supreme Court of the State of New York sitting in the Borough of Manhattan and of the United States District Court of the Southern District of New York sitting in the Borough of Manhattan, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Agreement or any other Loan Document, or for recognition or enforcement of any judgment, and each of the parties hereto irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such New York state court or, to the fullest extent permitted by Applicable Law, in such Federal court. Each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Nothing in this Agreement or in any other Loan Document shall affect any right that the Administrative Agent or any Lender may otherwise have to bring any action or proceeding relating to this Agreement or any other Loan Document against the Borrower or any other Credit Party or its properties in the courts of any jurisdiction.

(c) Waiver of Venue. The Borrower and each other Credit Party irrevocably and unconditionally waives, to the fullest extent permitted by Applicable Law, any objection that it may now or hereafter have to the laying of venue of any action or proceeding arising out of or relating to this Agreement or any other Loan Document in any court referred to in paragraph (b) of this Section. Each of the parties hereto hereby irrevocably

waives, to the fullest extent permitted by Applicable Law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

(d) Service of Process. Each party hereto irrevocably consents to service of process in the manner provided for notices in Section 11.1. Nothing in this Agreement will affect the right of any party hereto to serve process in any other manner permitted by Applicable Law.

SECTION 11.6 Waiver of Jury Trial.

(a) EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

SECTION 11.7 Reversal of Payments. To the extent any Credit Party makes a payment or payments to the Administrative Agent for the ratable benefit of the Lenders which payments or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside and/or required to be repaid to a trustee, receiver or any other party under any bankruptcy law, state or federal law, common law or equitable cause, then, to the extent of such payment repaid, the Obligations or part thereof intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been received by the Administrative Agent.

SECTION 11.8 Injunctive Relief; Punitive Damages.

(a) The Borrower recognizes that, in the event the Borrower fails to perform, observe or discharge any of its obligations or liabilities under this Agreement, any remedy of law may prove to be inadequate relief to the Lenders. Therefore, the Borrower agrees that the Lenders, at the Lenders' option, shall be entitled to temporary and permanent injunctive relief in any such case without the necessity of proving actual damages.

(b) The Administrative Agent, the Lenders and the Borrower (on behalf of itself and the other Credit Parties) hereby agree that no such Person shall have a remedy of punitive or exemplary damages against any other party to a Loan Document and each such Person hereby waives any right or claim to punitive or exemplary damages that they may now have or may arise in the future in connection with any Dispute, whether such Dispute is resolved through arbitration or judicially.

SECTION 11.9 Successors and Assigns; Participations.

(a) Successors and Assigns Generally. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that neither the Borrower nor any other Credit Party may assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender and no Lender may assign or otherwise transfer any of its rights or obligations hereunder except (i) to an assignee in accordance with the provisions of paragraph (b) of this Section, (ii) by way of participation in accordance with the provisions of paragraph (d) of this Section or (iii) by way of pledge or assignment of a security interest subject to the restrictions of paragraph (f) of this Section (and any other attempted assignment or transfer by any party hereto shall be null and void). Nothing in this Agreement, expressed or implied, shall be construed to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in paragraph (d) of this Section and, to the extent expressly

contemplated hereby, the Related Parties of each of the Administrative Agent and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Assignments by Lenders. Any Lender may at any time assign to one or more assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Term Loan Commitment and the Term Loans at the time owing to it); provided that any such assignment shall be subject to the following conditions:

(i) Minimum Amounts.

(A) in the case of an assignment of the entire remaining amount of the assigning Lender's Term Loan Commitment and the Term Loans at the time owing to it or in the case of an assignment to a Lender, an Affiliate of a Lender or an Approved Fund, no minimum amount need be assigned; and

(B) in any case not described in paragraph (b)(i)(A) of this Section, the aggregate amount of the Term Loan Commitment (which for this purpose includes Term Loans outstanding thereunder) or, if the applicable Term Loan Commitment is not then in effect, the principal outstanding balance of the Term Loans of the assigning Lender subject to each such assignment (determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date) shall not be less than \$1,000,000 unless each of the Administrative Agent and, so long as no Event of Default has occurred and is continuing, the Borrower otherwise consents (each such consent not to be unreasonably withheld or delayed); provided that the Borrower shall be deemed to have given its consent five (5) Business Days after the date written notice thereof has been delivered by the assigning Lender (through the Administrative Agent) unless such consent is expressly refused by the Borrower prior to such fifth (5th) Business Day;

(ii) Proportionate Amounts. Each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Term Loan or the Term Loan Commitment assigned;

(iii) Required Consents. No consent shall be required for any assignment except to the extent required by paragraph (b)(i) (B) of this Section and, in addition:

(A) the consent of the Borrower (such consent not to be unreasonably withheld) shall be required unless (x) an Event of Default has occurred and is continuing at the time of such assignment or (y) such assignment is to a Lender, an Affiliate of a Lender or an Approved Fund; provided, that the Borrower shall be deemed to have consented to any such assignment unless it shall object thereto by written notice to the Administrative Agent within 5 Business Days after having received notice thereof; and

(B) the consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for assignments in respect of the Term Loan Facility to a Person who is not a Lender, an Affiliate of a Lender or an Approved Fund.

(iv) Assignment and Assumption. The parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption, together with a processing and recordation fee of \$3,500 for each assignment (provided, that only one such fee will be payable in connection with simultaneous assignments to two or more Approved Funds by a Lender), and the assignee, if it is not a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire.

(v) No Assignment to Certain Persons. No such assignment shall be made to the Borrower or any of the Borrower's Affiliates or Subsidiaries.

(vi) No Assignment to Natural Persons. No such assignment shall be made to a natural person.

Subject to acceptance and recording thereof by the Administrative Agent pursuant to paragraph (c) of this Section, from and after the Closing Date specified in each Assignment and Assumption, the assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest

assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto) but shall continue to be entitled to the benefits of Sections 4.8, 4.9, 4.10, 4.12 and 11.3 with respect to facts and circumstances occurring prior to the Closing Date of such assignment. Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this paragraph shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with paragraph (d) of this Section.

(c) Register. The Administrative Agent, acting solely for this purpose as a non-fiduciary agent of the Borrower, shall maintain at one of its offices a copy of each Assignment and Assumption delivered to it and a register for the recordation of the names and addresses of the Lenders, and the Term Loan Commitment of, and principal amounts of (and stated interest on) the Term Loans owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive absent manifest error, and the Borrower, the Administrative Agent and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by the Borrower and any Lender (but only to the extent of entries in the Register that are applicable to such Lender), at any reasonable time and from time to time upon reasonable prior notice.

(d) Participations. Any Lender may at any time, without the consent of, or notice to, the Borrower or the Administrative Agent, sell participations to any Person (other than a natural person, the Borrower, any of the Borrower's Affiliates or Subsidiaries or those certain competitors of the Borrower set forth in that certain letter agreement delivered to the Administrative Agent by the Borrower on or prior to the Closing Date (which letter agreement shall be made available to the Lenders upon request therefor) (each, a "Participant") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Term Loan Commitment and/or the Term Loans owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Borrower, the Administrative Agent and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement.

Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver or modification described in Section 11.2 that directly affects such Participant and could not be affected by a vote of the Required Lenders. Subject to paragraph (e) of this Section, the Borrower agrees that each Participant shall be entitled to the benefits of Sections 4.8, 4.9, 4.10 and 4.12 to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to paragraph (b) of this Section. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 11.3 as though it were a Lender, provided such Participant agrees to be subject to Section 4.6 as though it were a Lender.

(e) Limitations upon Participant Rights. A Participant shall not be entitled to receive any greater payment under Sections 4.10 and 4.12 than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant, unless the sale of the participation to such Participant is made with the Borrower's prior written consent. No Participant shall be entitled to the benefits of Section 4.12 unless the Borrower is notified of the participation sold to such Participant and such Participant agrees, for the benefit of the Borrower, to comply with Section 4.12(e) as though it were a Lender.

(f) Certain Pledges. Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including without limitation any pledge or assignment to secure obligations to a Federal Reserve Bank; provided that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(g) Participant Register. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Borrower, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Term Loans or other obligations under the Loan Documents (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any commitments, loans, letters of credit or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such commitment, loan, letter of credit or other obligation is in registered form under Treasury Regulations Section 5f.103-1(c) and Proposed Treasury Regulations Section 1.163-5(b) (or any amended or successor version). The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary. For the avoidance of doubt, the Administrative Agent (in its capacity as Administrative Agent) shall have no responsibility for maintaining a Participant Register.

SECTION 11.10 Confidentiality. Each of the Administrative Agent and the Lenders agree to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates and to its and its Affiliates' respective partners, directors, officers, employees, agents, advisors and other representatives (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent requested by, or required to be disclosed to, any rating agency, or regulatory or similar authority purporting to have jurisdiction over it (including any self-regulatory authority, such as the National Association of Insurance Commissioners), (c) to the extent required by Applicable Laws or regulations or by any subpoena or similar legal process, (d) to any other party hereto, (e) in connection with (but only to the extent determined by the applicable party to be necessary or desirable to permit or facilitate) the exercise of any remedies under this Agreement or under any other Loan Document or any action or proceeding relating to this Agreement or any other Loan Document (or any Hedge Agreement with a Lender or the Administrative Agent) or the enforcement of rights hereunder or thereunder, (f) subject to an agreement containing provisions substantially the same as those of this Section, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights or obligations under this Agreement, Participant or proposed Participant, or (ii) any actual or prospective counterparty (or its advisors) to any swap or derivative transaction relating to the Borrower and its obligations, (g) with the consent of the Borrower, (h) to Gold Sheets and other similar bank trade publications, such information to consist of deal terms and other information set forth in the Loan Documents and customarily found in such publications, (i) to the extent such Information (x) becomes publicly available other than as a result of a breach of this Section or (y) becomes available to the Administrative Agent, any Lender or any of their respective Affiliates on a nonconfidential basis from a source other than the Borrower or (j) to governmental regulatory authorities in connection with any regulatory examination of the Administrative Agent or any Lender or in accordance with the Administrative Agent's or any Lender's regulatory compliance policy if the Administrative Agent or such Lender deems necessary for the mitigation of claims by those authorities against the Administrative Agent or such Lender or any of its subsidiaries or affiliates. For purposes of this Section, "Information" means all information received from any Credit Party or any Subsidiary thereof relating to any Credit Party or any Subsidiary thereof or any of their respective businesses, other than any such information that is available to the Administrative Agent or any Lender on a nonconfidential basis prior to disclosure by any Credit Party or any Subsidiary thereof; provided that, in the case of information received from a Credit Party or any Subsidiary thereof after the date hereof, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

EACH LENDER ACKNOWLEDGES THAT INFORMATION AS DEFINED IN THE IMMEDIATELY PRECEDING PARAGRAPH FURNISHED TO IT PURSUANT TO THIS AGREEMENT MAY INCLUDE MATERIAL NON-PUBLIC INFORMATION CONCERNING THE CREDIT PARTIES AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES, AND CONFIRMS THAT IT HAS DEVELOPED COMPLIANCE PROCEDURES REGARDING THE USE OF MATERIAL NON-PUBLIC

INFORMATION AND THAT IT WILL HANDLE SUCH MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH THOSE PROCEDURES AND APPLICABLE LAW, INCLUDING FEDERAL AND STATE SECURITIES LAWS .

ALL INFORMATION, INCLUDING REQUESTS FOR WAIVERS AND AMENDMENTS, FURNISHED BY THE BORROWER OR THE ADMINISTRATIVE AGENT PURSUANT TO, OR IN THE COURSE OF ADMINISTERING, THIS AGREEMENT WILL BE SYNDICATE-LEVEL INFORMATION, WHICH MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION ABOUT THE BORROWER, THE OTHER LOAN PARTIES AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES. ACCORDINGLY, EACH LENDER REPRESENTS TO THE BORROWER AND THE ADMINISTRATIVE AGENT THAT IT HAS IDENTIFIED IN ITS ADMINISTRATIVE QUESTIONNAIRE A CREDIT CONTACT WHO MAY RECEIVE INFORMATION THAT MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH ITS COMPLIANCE PROCEDURES AND APPLICABLE LAW .

SECTION 11.11 Performance of Duties. Each of the Credit Party's obligations under this Agreement and each of the other Loan Documents shall be performed by such Credit Party at its sole cost and expense.

SECTION 11.12 All Powers Coupled with Interest. All powers of attorney and other authorizations granted to the Lenders, the Administrative Agent and any Persons designated by the Administrative Agent or any Lender pursuant to any provisions of this Agreement or any of the other Loan Documents shall be deemed coupled with an interest and shall be irrevocable so long as any of the Obligations remain unpaid or unsatisfied, any of the Term Loan Commitments remain in effect or the Term Loan Facility has not been terminated.

SECTION 11.13 Survival.

(a) All representations and warranties set forth in Article VI and all representations and warranties contained in any certificate, or any of the Loan Documents (including, but not limited to, any such representation or warranty made in or in connection with any amendment thereto) shall constitute representations and warranties made under this Agreement. All representations and warranties made under this Agreement shall be made or deemed to be made at and as of the Closing Date (except those that are expressly made as of a specific date), shall survive the Closing Date and shall not be waived by the execution and delivery of this Agreement, any investigation made by or on behalf of the Lenders or any borrowing hereunder.

(b) Notwithstanding any termination of this Agreement, the indemnities to which the Administrative Agent and the Lenders are entitled under the provisions of this Article XI and any other provision of this Agreement and the other Loan Documents shall continue in full force and effect and shall protect the Administrative Agent and the Lenders against events arising after such termination as well as before.

SECTION 11.1 Titles and Captions. Titles and captions of Articles, Sections and subsections in, and the table of contents of, this Agreement are for convenience only, and neither limit nor amplify the provisions of this Agreement.

SECTION 11.15 Severability of Provisions. Any provision of this Agreement or any other Loan Document which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective only to the extent of such prohibition or unenforceability without invalidating the remainder of such provision or the remaining provisions hereof or thereof or affecting the validity or enforceability of such provision in any other jurisdiction.

SECTION 11.16 Counterparts; Integration; Effectiveness; Electronic Execution.

(a) Counterparts; Integration; Effectiveness. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed signature page of this Agreement by facsimile transmission, e-mail, or any other electronic means that reproduces an image of the actual executed signature page shall be effective as delivery of a manually executed counterparty hereof. The words "execution," "signed," "signature," "delivery," and words of like import in or relating to any document to be signed in connection with this Agreement and the transactions contemplated hereby or thereby shall be

deemed to include Electronic Signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; provided that nothing herein shall require the Administrative Agent to accept electronic signatures in any form or format without its prior written consent. This Agreement and the other Loan Documents, and any separate letter agreements with respect to fees payable to the Administrative Agent or limitations on Participations, constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. In the event of any conflict between the provisions of this Agreement and those of any other Loan Document, the provisions of this Agreement shall control; provided that the inclusion of supplemental rights or remedies in favor of the Administrative Agent or the Lenders in any other Loan Document shall not be deemed a conflict with this Agreement. Each Loan Document was drafted with the joint participation of the respective parties thereto and shall be construed neither against nor in favor of any party, but rather in accordance with the fair meaning thereof. Except as provided in Section 5.1, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto.

(b) Electronic Execution of Assignments. The words “execution,” “signed,” “signature,” and words of like import in any Assignment and Assumption shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

SECTION 11.17 Term of Agreement. This Agreement shall remain in effect from the Closing Date through and including the date upon which all Obligations (other than contingent indemnification obligations not then due) arising hereunder or under any other Loan Document shall have been indefeasibly and irrevocably paid and satisfied in full and the Term Loan Commitment has been terminated (such date, the “Termination Date”). No termination of this Agreement shall affect the rights and obligations of the parties hereto arising prior to such termination or in respect of any provision of this Agreement which survives such termination.

SECTION 11.18 USA Patriot Act. The Administrative Agent and each Lender hereby notifies the Borrower that pursuant to the requirements of the Act, it is required to obtain, verify and record information that identifies the Borrower and Subsidiary Guarantors, which information includes the name and address of the Borrower and Subsidiary Guarantor and other information that will allow such Lender to identify the Borrower or Subsidiary Guarantor in accordance with the Act.

SECTION 11.19 [Reserved].

SECTION 11.20 Independent Effect. The Borrower acknowledges and agrees that each covenant contained in Articles VII, VIII, IX or X hereof shall be given independent effect. Accordingly, the Borrower shall not engage in any transaction or other act otherwise permitted under any covenant contained in Articles VII, VIII, IX or X, before or after giving effect to such transaction or act, if the Borrower shall or would be in breach of any other covenant contained in Articles VII, VIII, IX or X.

SECTION 11.21 [Reserved].

SECTION 11.22 No Advisory or Fiduciary Responsibility. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Loan Document), the Borrower and each other Credit Party acknowledges and agrees, and acknowledges its Affiliates’ understanding, that: (i) (A) the arranging and other services regarding this Agreement provided by the Administrative

Agent and the Lenders are arm's-length commercial transactions between the Borrower, each other Credit Party and their respective Affiliates, on the one hand, and the Administrative Agent and the Lenders, on the other hand, (B) each of the Borrower and the other Credit Parties has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (C) the Borrower and each other Credit Party is capable of evaluating, and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby and by the other Loan Documents; (ii) (A) the Administrative Agent and the Lenders each is and has been acting solely as a principal and, except as expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for the Borrower, any other Credit Party or any of their respective Affiliates, or any other Person and (B) neither the Administrative Agent nor any Lender has any obligation to the Borrower, any other Credit Party or any of their respective Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Loan Documents; and (iii) the Administrative Agent and the Lenders and their respective Affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Borrower, the other Credit Parties and their respective Affiliates, and neither the Administrative Agent nor any Lender has any obligation to disclose any of such interests to the Borrower, any other Credit Party or any of their respective Affiliates.

SECTION 11.23 Acknowledgement and Consent to Bail-In of EEA Financial Institutions . Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

- (a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and
- (b) the effects of any Bail-In Action on any such liability, including, if applicable:
 - (i) a reduction in full or in part or cancellation of any such liability;
 - (ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or
 - (iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

[Signature pages to follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed under seal by their duly authorized officers, all as of the day and year first written above.

OWENS CORNING, as Borrower

By: /s/ Brad Lazorka
Name: Brad Lazorka
Title: Vice President and Treasurer

By: /s/ Matthew Fortunak
Name: Matthew Fortunak
Title: Assistant Treasurer

AGENTS AND LENDERS:

JPMORGAN CHASE BANK, N.A. ,
as Administrative Agent and Lender

By: /s/ Peter Predun
Name: Peter Predun
Title: Executive Director

CITIBANK, N.A. ,
as a Syndication Agent and Lender

By: /s/ Michael Vondriska
Name: Michael Vondriska
Title: Vice President

WELLS FARGO BANK, NATIONAL ASSOCIATION ,
as a Syndication Agent and Lender

By: /s/ Kay Reedy
Name: Kay Reedy
Title: Managing Director

SCHEDULE 1.1

TERM LOAN COMMITMENTS

<u>LENDER</u>		<u>TERM LOAN COMMITMENT</u>
JPMORGAN CHASE BANK, N.A.		\$150,000,000
CITIBANK, N.A.		\$225,000,000
WELLS FARGO BANK, NATIONAL ASSOCIATION		\$225,000,000
AGGREGATE TERM LOAN COMMITMENTS	\$	600,000,000

SCHEDULE 6.9**STATUTE EXTENSIONS**

State	Years open	Statute extension date
Illinois	2010-2012	June 30, 2018
Illinois	2013-2014	April 15, 2019
Michigan	2008-2010	Until agreed audit finalized or finalized through judicial system
New York: Owens Corning and Subsidiaries	2010-2013	September 15, 2018
New York: Pittsburgh Corning Corporation	2013	June 30, 2018
North Carolina	2008-2010	November 15, 2017
IRS: Pittsburgh Corning Corporation	2013	December 31, 2019
U.S. Customs and Border Protection: InterWrap Inc.	December 2008-2015	December 11, 2017
U.S. Customs and Border Protection: InterWrap Corp.	December 2008-2015	December 6, 2017
Canada: OC Canada Holdings Company	2013	

SCHEDULE 6.12

SUBSIDIARIES

DOMESTIC SUBSIDIARIES

Subsidiary Name	Status as Subsidiary Guarantor or Immaterial Subsidiary
CDC Corporation	Guarantor
Engineered Pipe Systems, Inc.	Guarantor
Eric Company	Guarantor
InterWrap Corp.	Guarantor
IPM Inc.	Guarantor
OCV Finance, LLC	Immaterial Subsidiary
OCV Intellectual Capital, LLC	Guarantor
Owens Corning Automotive, LLC	Guarantor
Owens Corning Composite Materials, LLC	Guarantor
Owens Corning Construction Services, LLC	Guarantor
Owens Corning Elaminator Insulation Systems, LLC	Immaterial Subsidiary
Owens Corning Fabwel, LLC	Immaterial Subsidiary
Owens Corning Foam Insulation, LLC	Guarantor
Owens Corning Franchising, LLC	Guarantor
Owens Corning HOMEExperts, Inc.	Guarantor
Owens Corning HT, Inc.	Guarantor
Owens Corning Infrastructure Solutions, LLC	Immaterial Subsidiary
Owens Corning Insulating Systems, LLC	Guarantor
Owens Corning Intellectual Capital, LLC	Guarantor
Owens Corning Mineral Wool, LLC	Guarantor
Owens Corning Non-Woven Technology, LLC	Guarantor
Owens Corning Receivables LLC	Immaterial Subsidiary
Owens Corning Remodeling Systems, LLC	Immaterial Subsidiary
Owens Corning Roofing and Asphalt, LLC	Guarantor
Owens Corning Sales, LLC	Guarantor
Owens Corning Science and Technology, LLC	Guarantor
Owens Corning Sunrooms Franchising, LLC	Immaterial Subsidiary
Owens Corning Technical Fabrics, LLC	Guarantor
Owens Corning U.S. Holdings, LLC	Guarantor
Owens-Corning Funding Corporation	Guarantor
Pittsburgh Corning Corporation	Guarantor
Soltech, Inc.	Guarantor
TF Holding Corp.	Immaterial Subsidiary
Thermafiber, Inc.	Guarantor

FOREIGN SUBSIDIARIES

0979301 B.C. ULC

Crown Mfg. Inc.

Deutsche FOAMGLAS GmbH

Dutch OC Coöperatief Invest U.A.

European Owens Corning Fiberglas SPRL
Finefiber (Shanghai) Building Material Co. Ltd.
Finefiber Insulation Co. Pte. Ltd.
FOAMGLAS (Italia) SRL
FOAMGLAS (Nordic) AB
IBCO SRL
Instalaciones Especializadas en Confort Termoacustico y Ampliacion, S. de R.L. de C.V.
International Packaging Products Pvt. Ltd.
InterWrap (Hong Kong) Ltd.
InterWrap (Qingdao) Trading Co. Ltd.
InterWrap B.V.
InterWrap Coöperatief U.A.
InterWrap Corp. Pvt. Ltd.
InterWrap ULC
Inversiones Owens Corning Chile Holdings Limitada
IP Owens Corning I, S. de R.L. de C.V.
OC Canada Finance Inc.
OC Canada Holdings General Partnership
OC Celfortec Company
OC Latin American Holdings GmbH
OC NL Invest Coöperatief U.A.
OC PRO CV
OCCV1, Inc.
OCCV2, LLC
OCV (Thailand) Co., Ltd.
OCV Chambéry France
OCV Chambéry International
OCV Italia Srl
OCV Mexico S. de R.L. de C.V.
OCV Reinforcements Alcala Spain S.L.
OCV Servicios Mexico, S.A. de C.V.
OCV Steklovolokno OAO
Owens Corning (Australia) Pty Limited
Owens Corning (China) Investment Company Limited
Owens Corning (Guangzhou) Fiberglas Co., Ltd.
Owens Corning (Nanjing) Building Materials Co., Ltd.
Owens Corning (Shanghai) Fiberglas Co. Ltd.
Owens Corning (Singapore) Pte Ltd
Owens Corning (Tianjin) Building Materials Co. Ltd.
Owens Corning (Xi'an) Building Materials Co., Ltd.
Owens Corning Alloy Canada GP Inc.
Owens Corning Alloy Canada LP
Owens Corning Argentina Sociedad de Responsabilidad Limitada
Owens Corning BM (Korea), Ltd
Owens Corning Canada GP Inc.
Owens Corning Canada Holdings B.V.
Owens Corning Canada Holdings ULC
Owens Corning Canada LP
Owens Corning Cayman (China) Holdings
Owens Corning Celfortec Canada GP Inc.
Owens Corning Celfortec LP
Owens Corning Composite Materials Canada GP Inc.
Owens Corning Composite Materials Canada LP

Owens Corning Composites (Beijing) Co., Ltd.
Owens Corning Composites (China) Co., Ltd.
Owens Corning DC Pension Plan Limited
Owens Corning Enterprise (India) Pvt. Ltd.
Owens Corning Fabrics (Changzhou) Co., Ltd.
Owens Corning Fiberglas (UK) Pension Plan Ltd.
Owens Corning Fiberglas A.S. Limitada
Owens Corning Fiberglas Espana SL
Owens Corning Fiberglas France
Owens Corning Fiberglas S.R.L.
Owens Corning Financial Services ULC
Owens Corning Finland Oy
Owens Corning GlassMetal Services (Suzhou) Co., Ltd.
Owens Corning Global Holdings LP
Owens Corning Holdings 1 CV
Owens Corning Holdings 3 CV
Owens Corning Holdings 4 CV
Owens Corning Holdings 5 CV
Owens Corning Holdings Holland B.V.
Owens Corning Hong Kong Limited
Owens Corning Industries (India) Private Limited
Owens Corning Insulating Systems Canada GP Inc.
Owens Corning Insulating Systems Canada LP
Owens Corning International Holdings C.V.
Owens Corning InterWrap Canada GP Inc.
Owens Corning InterWrap Canada LP
Owens Corning Japan LLC
Owens Corning Kohold B.V.
Owens Corning Korea
Owens Corning Mexico, S. de R.L. de C.V.
Owens Corning Reinforcements (Hangzhou) Co., Ltd.
Owens Corning Remodeling Canada GP Inc.
Owens Corning Remodeling Canada LP
Owens Corning Supplementary Pension Plan Limited
Owens-Corning (India) Private Limited
Owens-Corning Britinvest Limited
Owens-Corning Cayman Limited
Owens-Corning Fiberglas Deutschland GmbH
Owens-Corning Veil Netherlands B.V.
Owens-Corning Veil U.K. Ltd.
Pittsburgh Corning (United Kingdom) Limited
Pittsburgh Corning (Yantai) Insulation Materials Co. Ltd.
Pittsburgh Corning Asia Limited
Pittsburgh Corning CR, s.r.o.
Pittsburgh Corning Europe N.V.
Pittsburgh Corning France
Pittsburgh Corning Gesellschaft mbh
Pittsburgh Corning Mexico S. de R.L. de C.V.
Pittsburgh Corning Nederland BV
Pittsburgh Corning Singapore PTE Ltd.
Pittsburgh Corning Suisse SA
Qingdao Novia Polymer Co., Ltd.
Tecnologia Owens Corning I, S. de R.L. de C.V.

SCHEDULE 6.18

SCHEDULED EXISTING INDEBTEDNESS

Senior Notes :

Description	Holder	Currency	Principal Amount (as of Closing Date)
4.2% Senior Notes (2022)	Owens Corning	USD	\$600,000,000
4.2% Senior Notes (2024)	Owens Corning	USD	\$400,000,000
3.4% Senior Notes (2026)	Owens Corning	USD	\$400,000,000
7.0% Senior Notes (2036)	Owens Corning	USD	\$410,001,000
4.30% Senior Notes (2047)	Owens Corning	USD	\$600,000,000

The Senior Notes are guaranteed by the following Subsidiaries as of the Closing Date:

CDC Corporation
Engineered Pipe Systems, Inc.
Eric Company
InterWrap Corp.
IPM Inc.
OCV Intellectual Capital, LLC
Owens Corning Automotive, LLC
Owens Corning Composite Materials, LLC
Owens Corning Construction Services, LLC
Owens Corning Foam Insulation, LLC
Owens Corning Franchising, LLC
Owens Corning HOMEexperts, Inc.
Owens Corning HT, Inc.
Owens Corning Insulating Systems, LLC
Owens Corning Intellectual Capital, LLC
Owens Corning Mineral Wool, LLC
Owens Corning Non-Woven Technology, LLC
Owens Corning Roofing and Asphalt, LLC
Owens Corning Sales, LLC
Owens Corning Science and Technology, LLC
Owens Corning Technical Fabrics, LLC
Owens Corning U.S. Holdings, LLC
Owens-Corning Funding Corporation
Pittsburgh Corning Corporation
Soltech, Inc.
Thermafiber, Inc.

SCHEDULE 8.1
EXISTING LIENS

None.

EXHIBIT A

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF TERM LOAN NOTE

TERM LOAN NOTE

_____, 20__

FOR VALUE RECEIVED, the undersigned, OWENS CORNING, a Delaware corporation (the “Borrower”), promises to pay to _____ (the “Lender”), at the place and times provided in the Term Loan Agreement referred to below, the principal amount of each Term Loan made by the Lender from time to time pursuant to that certain Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among the Borrower, the lenders who are or may become a party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

The unpaid principal amount of this Term Loan from time to time outstanding is subject to mandatory repayment from time to time as provided in the Term Loan Agreement and shall bear interest as provided in Section 4.1 of the Term Loan Agreement. All payments of principal and interest on this Term Loan Note shall be payable in Dollars in immediately available funds to the account designated in the most recent Notice of Account Designation delivered to the Administrative Agent pursuant to Section 3.2 of the Term Loan Agreement.

This Term Loan Note is entitled to the benefits of, and evidences Obligations incurred under, the Term Loan Agreement, to which reference is made for a statement of the terms and conditions on which the Borrower is permitted and required to make prepayments and repayments of principal of the Obligations evidenced by this Term Loan Note and on which such Obligations may be declared to be immediately due and payable.

THIS TERM LOAN NOTE SHALL BE GOVERNED BY, CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK (INCLUDING SECTION 5-1401 AND SECTION 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK), WITHOUT REFERENCE TO THE CONFLICTS OR CHOICE OF LAW PRINCIPLES THEREOF.

The Borrower hereby waives all requirements as to diligence, presentment, demand of payment, protest and (except as required by the Term Loan Agreement) notice of any kind with respect to this Term Loan Note.

IN WITNESS WHEREOF, the undersigned has executed this Term Loan Note as of the day and year first above written.

OWENS CORNING

By:
Name:
Title:

EXHIBIT B

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF BORROWING

NOTICE OF BORROWING

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

This irrevocable Notice of Borrowing is delivered to you pursuant to Section 3.2 of the Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among Owens Corning, a Delaware corporation (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. The Borrower hereby requests that the Lenders make the Term Loan to the Borrower in the amount of \$ _____. (Complete with the applicable amount in accordance with Section 3.2 of the Term Loan Agreement.)

2. The Borrower hereby requests that such Term Loan be made on the following Business Day: _____. (Complete with a Business Day in accordance with Section 3.2 of the Term Loan Agreement).

3. The Borrower hereby requests that such Term Loan bear interest at the following interest rate, plus the Applicable Margin, as set forth below:

Component
of Term Loan

Interest Rate

Interest Period (LIBOR
Rate only)

[Base Rate or LIBOR Rate]

4. The aggregate Dollar amount of the principal amount of all Term Loans and Obligations outstanding as of the date hereof (including the Term Loan requested herein) does not exceed the maximum amount permitted to be outstanding, pursuant to the terms of the Term Loan Agreement.

5. All of the conditions applicable to the Term Loan requested herein as set forth in the Term Loan Agreement have been satisfied or waived as of the date hereof and will remain satisfied or waived to the date of such Term Loan.

6. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Notice of Borrowing as of the day and year first written above.

OWENS CORNING

By:
Name:
Title:

EXHIBIT C

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF ACCOUNT DESIGNATION

NOTICE OF ACCOUNT DESIGNATION

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

This Notice of Account Designation is delivered to you pursuant to Section 3.2 of the Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among Owens Corning, a Delaware corporation (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. The Administrative Agent is hereby authorized to disburse Term Loan proceeds to the Borrower into the applicable account set forth on the attached Schedule 1.
2. This authorization shall remain in effect until revoked or until a subsequent Notice of Account Designation is provided to the Administrative Agent.
3. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Notice of Account Designation as of the day and year first written above.

OWENS CORNING

By:
Name:
Title:

Schedule 1
to
Notice of Account Designation

<u>Bank Name</u>	<u>ABA Routing Number</u>	<u>Account Number</u>	<u>Bank Location</u>

EXHIBIT D

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF PREPAYMENT

2
NAI-1502690585v2

NOTICE OF PREPAYMENT

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

The undersigned, Owens Corning, a Delaware corporation (the “Borrower”), provides an irrevocable Notice of Prepayment delivered to you pursuant to Section 3.4 of the Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among the Borrower, the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. The Borrower hereby provides notice to the Administrative Agent that it shall repay [the following portion of the Term Loan which is a Base Rate Loan: \$ _____] [and/or] [the following portion of the Term Loan which is a LIBOR Rate Loan: \$ _____]. (Complete with the applicable amount(s) in accordance with Section 3.4 of the Term Loan Agreement.)

2. The Borrower shall repay the above-referenced portion of the Term Loan on the following Business Day: _____.
(Complete with a date no earlier than (i) the same Business Day as of the date of this Notice of Prepayment with respect to prepayment of the portion of the Term Loan which is a Base Rate Loan and (ii) at least three (3) Business Days subsequent to the date of this Notice of Prepayment with respect to prepayment of the portion of the Term Loan which is a LIBOR Rate Loan).

3. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

IN WITNESS WHEREOF, the undersigned has executed this Notice of Prepayment as of the day and year first written above.

OWENS CORNING

By:
Name:
Title:

EXHIBIT E

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF CONVERSION/CONTINUATION

3

NOTICE OF CONVERSION/CONTINUATION

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

This irrevocable Notice of Conversion/Continuation (this “Notice”) is delivered to you pursuant to Section 4.2 of the Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. This Notice is submitted for the purpose of: (Check one and complete applicable information in accordance with the Term Loan Agreement.)

Converting all or a portion of a Base Rate Loan into a LIBOR Rate Loan.

- (a) The aggregate outstanding principal balance of such Base Rate Loan is \$_____.
 - (b) The principal amount of such Base Rate Loan to be converted is \$_____.
-

(c) The requested effective date of the conversion of such Base Rate Loan is _____.
(Complete with a Business Day.)

(d) The requested Interest Period applicable to the converted LIBOR Rate Loan is _____.

Converting a portion of LIBOR Rate Loan into a Base Rate Loan.

(a) The aggregate outstanding principal balance of such LIBOR Rate Loan is \$_____.

(b) The last day of the current Interest Period for such LIBOR Rate Loan is _____.

(c) The principal amount of such LIBOR Rate Loan to be converted is \$_____.

(d) The requested effective date of the conversion of such LIBOR Rate Loan is _____.
(Complete with a Business Day.)

Continuing all or a portion of a LIBOR Rate Loan as a LIBOR Rate Loan.

(a) The aggregate outstanding principal balance of such LIBOR Rate Loan is \$_____.

(b) The last day of the current Interest Period for such LIBOR Rate Loan is _____.

(c) The principal amount of such LIBOR Rate Loan to be continued is \$_____.

(d) The requested effective date of the continuation of such LIBOR Rate Loan is _____.
(Complete with a Business Day.)

(e) The requested Interest Period applicable to the continued LIBOR Rate Loan is _____.

2. All of the conditions applicable to the conversion or continuation of the Term Loan requested herein as set forth in the Term Loan Agreement have been satisfied or waived as of the date hereof and will remain satisfied or waived to the date of such conversion or continuation.

3. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Notice of Conversion/Continuation as of the day and year first written above.

OWENS CORNING

By:
Name:
Title:

EXHIBIT F

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF OFFICER'S COMPLIANCE CERTIFICATE

OFFICER'S COMPLIANCE CERTIFICATE

The undersigned, on behalf of OWENS CORNING, a corporation organized under the laws of Delaware (the "Borrower"), hereby certifies to the Administrative Agent and the Lenders, each as defined in the Term Loan Agreement referred to below, as follows:

1. This certificate is delivered to you pursuant to Section 7.1(d) of the Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the "Term Loan Agreement"), by and among the Borrower, the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

2. I have reviewed the financial statements of the Borrower and its Subsidiaries dated as of _____ and for the _____ period[s] then ended and such statements fairly present in all material respects in accordance with U.S. GAAP the financial condition of the Borrower and its Subsidiaries as of the dates indicated and the results of their operations and cash flows for the period[s] indicated.

3. I have reviewed the terms of the Term Loan Agreement, and the related Loan Documents and have made, or caused to be made under my supervision, a review in reasonable detail of the transactions and the condition of the Borrower and its Subsidiaries during the accounting period covered by the financial statements referred to in Paragraph 2 above. Such review has not disclosed the existence during or at the end of such accounting period of any condition or event that constitutes a Default or an Event of Default, nor do I have any knowledge of the existence of any such condition or event as of the date of this certificate [except, if such condition or event existed or exists, describe the nature, extent and period of existence thereof and what action the Borrower has taken, is taking and proposes to take with respect thereto]

4. To the best of my knowledge, the Borrower and its Subsidiaries are in compliance with the financial covenants contained in Sections 8.7 and 8.8 of the Term Loan Agreement as shown on such Schedule 1 and the Borrower and its Subsidiaries are in compliance with the other covenants and restrictions contained in the Term Loan Agreement.

[Signature Page Follows]

WITNESS the following signature as of the day and year first written above.

OWENS CORNING

By:

Name:

Title: [Chief Financial Officer / Treasurer / other
financial officer (including Controller)]

Schedule 1
to
Officer's Compliance Certificate

This Schedule 1 is attached to and made a part of an Officer's Compliance Certificate dated as of _____, ____ (the "Computation Date") and pertains to the period from _____, ____ to _____, ____ (the "Test Period"). Section references herein relate to sections of the Term Loan Agreement.

Ratio of Consolidated EBITDA to Consolidated Interest Expense, Section 8.7

- a. Consolidated EBITDA for the Test Period Attach hereto in reasonable detail the calculations required to arrive at Consolidated EBITDA for the Test Period. \$ _____
- b. Consolidated Interest Expense for the Test Period Attach hereto in reasonable detail the calculations required to arrive at Consolidated Interest Expense for the Test Period. \$ _____
- c. Ratio of Consolidated EBITDA to Consolidated Interest Expense (ratio of a to b) _____: 1.00
- d. Minimum permitted ratio 2.25:1.00

Ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization, Section 8.8

- a. Consolidated Total Indebtedness as at the Computation Date Attach hereto in reasonable detail the calculations required to arrive at Consolidated Total Indebtedness on the Computation Date. \$ _____
 - b. Consolidated Total Capitalization as at the Computation Date Attach hereto in reasonable detail the calculations required to arrive at Consolidated Total Capitalization on the Computation Date; provided, that Consolidated Net Worth used in calculating Consolidated Total Capitalization shall be adjusted in accordance with Section 8.8. \$ _____
 - c. Ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization (ratio of a to b) _____: 1.00
 - d. Maximum permitted ratio 0.60:1.00
-

EXHIBIT G

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF ASSIGNMENT AND ASSUMPTION

ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (the “Assignment and Assumption”) is dated as of the Effective Date set forth below and is entered into by and between **[INSERT NAME OF ASSIGNOR]** (the “Assignor”) and [the] [each] For bracketed language here and elsewhere in this form relating to the Assignee(s), if the assignment is to a single Assignee, choose the first bracketed language. If the assignment is to multiple Assignees, choose the second bracketed language. Assignee identified on the Schedules hereto (each, an “Assignee”). [It is understood and agreed that the rights and obligations of the Assignees hereunder are several and not joint.] Include bracketed language if there are multiple Assignees. Capitalized terms used but not defined herein shall have the meanings given to them in the Term Loan Agreement identified below (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), receipt of a copy of which is hereby acknowledged by [the] [each] Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, the Assignor hereby irrevocably sells and assigns to [the Assignee] [the respective Assignees] , and [the] [each] Assignee hereby irrevocably purchases and assumes from the Assignor, subject to and in accordance with the Standard Terms and Conditions and the Term Loan Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below, (i) all of the Assignor’s rights and obligations in its capacity as a Lender under the Term Loan Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of such outstanding rights and obligations of the Assignor under the respective facilities identified below (including, without limitation, any guarantees included in such facilities) and (ii) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of the Assignor (in its capacity as a Lender) against any Person, whether known or unknown, arising under or in connection with the Term Loan Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including, but not limited to, contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (i) above (the rights and obligations sold and assigned to [the] [any] Assignee pursuant to clauses (i) and (ii) above being referred to herein collectively as [the] [an] “Assigned Interest”). Each such sale and assignment is without recourse to the Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by the Assignor.

1. Assignor: **[INSERT NAME OF ASSIGNOR]**
 2. Assignee(s): **[INSERT NAME OF ASSIGNEE(S)]**
 3. Borrower: Owens Corning
-

4. Administrative Agent: JPMorgan Chase Bank, N.A., as the Administrative Agent under the Term Loan Agreement

5. Term Loan Agreement: The Term Loan Agreement, dated as of October 27, 2017, among Owens Corning, as Borrower, the Lenders parties thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent (as amended, restated, supplemented or otherwise modified)

6. Assigned Interest: See Schedules attached hereto

[7. Trade Date: _____] To be completed if the Assignor and the Assignee(s) intend that the minimum assignment amount is to be determined as of the Trade Date.

[Remainder of Page Intentionally Left Blank]

Effective Date: _____, 20__ [TO BE INSERTED BY THE ADMINISTRATIVE AGENT AND WHICH SHALL BE THE EFFECTIVE DATE OF RECORDATION OF TRANSFER IN THE REGISTER THEREFOR.]

[The] [Each] Assignee agrees to deliver to the Administrative Agent a completed Administrative Questionnaire in which [the] [such] Assignee designates one or more credit contacts to whom all syndicate-level information (which may contain material non-public information about the Borrower and its Related Parties or their respective securities) will be made available and who may receive such information in accordance with the [applicable] Assignee's compliance procedures and applicable laws, including federal and state securities laws.

The terms set forth in this Assignment and Assumption are hereby agreed to:

ASSIGNOR
[NAME OF ASSIGNOR]

By: _____
Title:

ASSIGNEE[S]

[NAME OF ASSIGNEE] Add additional signature blocks, as needed.
[an Affiliate/Approved Fund of [identify Lender] Select as applicable .]

By: _____
Title:



[Consented to and] To be added only if the consent of the Administrative Agent is required by the terms of the Term Loan Agreement. Accepted:

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

By _____
Title:

[Consented to:] To be added only if the consent of the Borrower is required by the terms of the Term Loan Agreement.

OWENS CORNING

By _____
Title:

SCHEDULE 1
To Assignment and Assumption

Assigned Interests:

Assignor	Assignee(s)	Facility Assigned	Aggregate Amount of Commitment/ Term Loans for all Lenders Amount to be adjusted by the counterparties to take into account any payments or prepayments made between the Trade Date and the Effective Date.	Amount of Commitment/ Term Loans Assigned Amount to be adjusted by the counterparties to take into account any payments or prepayments made between the Trade Date and the Effective Date.	Percentage Assigned of Commitment/ Term Loans Set forth, to at least 9 decimals, as a percentage of the Commitment/Term Loans of all Lenders thereunder.	CUSIP Number
		Term Loan Facility	\$	\$	%	

ANNEX 1

to Assignment and Assumption

STANDARD TERMS AND CONDITIONS FOR
ASSIGNMENT AND ASSUMPTION

1. Representations and Warranties.

(1) 1.1 Assignor. The Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of the Assigned Interest, (ii) the Assigned Interest is free and clear of any lien, encumbrance or other adverse claim, (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and (iv) it is not a Defaulting Lender; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Term Loan Agreement or any other Loan Document, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Loan Documents or any collateral thereunder, (iii) the financial condition of the Borrower, any of its Subsidiaries or Affiliates or any other Person obligated in respect of any Loan Document or (iv) the performance or observance by the Borrower, any of its Subsidiaries or Affiliates or any other Person of any of their respective obligations under any Loan Document.

1.2. Assignee [s]. [The] [Each] Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and to become a Lender under the Term Loan Agreement, (ii) it meets all the requirements to be an assignee under Section 11.9(b) of the Term Loan Agreement (subject to such consents, if any, as may be required thereunder), (iii) from and after the Effective Date, it shall be bound by the provisions of the Term Loan Agreement as a Lender thereunder and, to the extent of [the] [the relevant] Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it is sophisticated with respect to decisions to acquire assets of the type represented by the Assigned Interest and either it, or the Person exercising discretion in making its decision to acquire the Assigned Interest, is experienced in acquiring assets of such type, (v) it has received a copy of the Term Loan Agreement, and has received or has been accorded the opportunity to receive copies of the most recent financial statements delivered pursuant to Section 7.1 thereof, as applicable, and such other documents and information as it deems appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase [the] [such] Assigned Interest, (vi) it has, independently and without reliance upon the Administrative Agent, any arranger of the credit facilities evidenced by the Term Loan Agreement or any other Lender and their respective Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Assignment and Assumption and to purchase [the] [such] Assigned Interest, (vii) attached to the Assignment and Assumption is any documentation required to be delivered by it pursuant to the terms of the Term Loan Agreement, duly completed and executed by [the] [such] Assignee and (viii) it is a Non-Public Lender; and (b) agrees that (i) it will, independently and without reliance on the Administrative Agent, any arranger of the credit facilities evidenced by the Term Loan Agreement, the Assignor or any other Lender and their respective Related Parties, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Loan Documents, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Loan Documents are required to be performed by it as a Lender.

2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of [the] [each] Assigned Interest (including payments of principal, interest, fees and other amounts) to the Assignor for amounts which have accrued to but excluding the Effective Date and to [the] [the relevant] Assignee for amounts which have accrued from and after the Effective Date.

3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts, which together shall constitute one instrument. Delivery of an executed counterpart of a signature page of this Assignment and Assumption by telecopy shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, construed and

enforced in accordance with, the law of the State of New York (including Section 5-1401 and Section 5-1402 of the General Obligations Law of the State of New York) without reference to the conflicts or choice of law principles thereof.

EXHIBIT H
to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF SUBSIDIARY GUARANTY AGREEMENT

SUBSIDIARY GUARANTY AGREEMENT

EXHIBIT I

to

Term Loan Agreement
dated as of October 27, 2017

by and among

Owens Corning,

as Borrower,

the Lenders party thereto,

as Lenders,

and

JPMorgan Chase Bank, N.A.,

as Administrative Agent

[Reserved]

EXHIBIT J

to
Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

EXHIBIT J-1

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Term Loan(s) (as well as any Term Loan Note(s) evidencing such Term Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20__

EXHIBIT J-2

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Not Partnerships

For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20__

EXHIBIT J-3

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20__

EXHIBIT J-4

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the "Term Loan Agreement"), among Owens Corning (the "Borrower"), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Term Loan(s) (as well as any Term Loan Note(s) evidencing such Term Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Term Loan(s) (as well as any Term Loan Note(s) evidencing such Term Loan(s)), (iii) with respect to the extension of credit pursuant to this Term Loan Agreement, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20__

\$300,000,000

364-DAY TERM LOAN AGREEMENT

dated as of October 27, 2017,

by and among

OWENS CORNING ,
as Borrower,

the Lenders referred to herein,
as Lenders,
and

JPMORGAN CHASE BANK, N.A. ,
as Administrative Agent

CITIBANK, N.A. and
WELLS FARGO BANK, NATIONAL ASSOCIATION ,
as Syndication Agents

and

JPMORGAN CHASE BANK, N.A.,
CITIGROUP GLOBAL MARKETS INC.
and

WELLS FARGO SECURITIES, LLC ,
as Joint Lead Arrangers and Joint Bookrunners

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-

364-DAY TERM LOAN AGREEMENT, dated as of October 27, 2017, by and among OWENS CORNING, a Delaware corporation (the “Borrower”), the lenders signatory hereto and the lenders who may become a party to this Agreement pursuant to the terms hereof (collectively with the lenders signatory hereto, the “Lenders”) and JPMORGAN CHASE BANK, N.A., a national banking association, as Administrative Agent (the “Administrative Agent”) for the Lenders.

STATEMENT OF PURPOSE

WHEREAS, the Borrower has requested, and the Lenders have agreed to extend to the Borrower, certain credit facilities on the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the premises and of the agreements, provisions and covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.1 Definitions

The following terms when used in this Agreement shall have the meanings assigned to them below:

“Acquisition” shall have the meaning provided in Section 8.2.

“Act” shall mean the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)), as amended.

“Administrative Agent” shall mean JPMorgan, in its capacity as Administrative Agent hereunder, and any successor thereto appointed pursuant to Section 10.6.

“Administrative Agent’s Office” shall mean the office of the Administrative Agent specified in or determined in accordance with the provisions of Section 11.1(c).

“Administrative Questionnaire” shall mean an administrative questionnaire in a form supplied by the Administrative Agent.

“Affiliate” shall mean, with respect to any Person, any other Person directly or indirectly controlling (including, but not limited to, all directors and officers of such Person), controlled by, or under direct or indirect common control with, such Person. A Person shall be deemed to control another Person if such Person possesses, directly or indirectly, the power (i) to vote 15% or more of the securities having ordinary voting power for the election of directors (or equivalent governing body) of such Person or (ii) to direct or cause the direction of the management and policies of such other Person, whether through the ownership of voting securities, by contract or otherwise; provided, however, that none of the Administrative Agent, any Lender or any of their respective Affiliates shall be considered an Affiliate of the Borrower or any Subsidiary thereof by reason of its acting in its capacities as such.

“Agreement” shall mean this 364-Day Term Loan Agreement, as amended, restated, supplemented or otherwise modified from time to time.

“Alternate Rating Agency” shall mean, with respect to any current Rating Agency, a substitute rating agency that is a nationally recognized rating agency and that has been approved in writing by the Administrative Agent (such approval not to be unreasonably withheld or delayed).

“Anti-Corruption Laws” shall mean all laws, rules, and regulations of any jurisdiction applicable to the Borrower or any of its Subsidiaries from time to time concerning or relating to bribery or corruption.

“ Anti-Money Laundering Laws ” shall mean the US Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 and the regulations and rules promulgated thereunder, as amended from time to time; the US Money Laundering Control Act of 1986 and the regulations and rules promulgated thereunder, as amended from time to time; the US Bank Secrecy Act and the regulations and rules promulgated thereunder, as amended from time to time; and corresponding laws of (a) the European Union or Canada designed to combat money laundering and terrorist financing and (b) jurisdictions in which the Borrower or any of its Affiliates operates or in which the proceeds of the Term Loan will be used or from which funds used to repay any Obligation will be derived.

“ Applicable Law ” shall mean all applicable provisions of constitutions, laws, statutes, ordinances, rules, treaties, regulations, permits, licenses, approvals, interpretations and orders of courts or Governmental Authorities and all orders and decrees of all courts and arbitrators.

“ Applicable Margin ” shall mean the per annum rate determined as set forth below based on the Debt Rating as set forth below:

Pricing Level	Debt Rating	Ticking Fee	LIBOR +	Base Rate +
I	BBB+/Baa1/BBB+ or higher	0.100%	1.125%	0.125%
II	BBB/Baa2/BBB	0.125%	1.250%	0.250%
III	BBB-/Baa3/BBB-	0.150%	1.500%	0.500%
IV	BB+/Ba1/BB+	0.200%	1.750%	0.750%
V	BB/Ba2/BB or lower	0.250%	2.000%	1.000%

Each change in the Applicable Margin resulting from a publicly announced change in the Debt Rating shall be effective during the period commencing on the date of such public announcement and ending on the date immediately preceding the effective date of the next such publicly announced change. If at any time there is a split in the Debt Ratings issued by the three Rating Agencies (with the Debt Rating for Pricing Level I being the highest and the Debt Rating for Pricing Level V being the lowest) and (i) two Debt Ratings are equal and higher than the third, the Pricing Level of the higher Debt Ratings shall be in effect, (ii) two Debt Ratings are equal and lower than the third, the Pricing Level of the lower Debt Ratings shall be in effect or (iii) no Debt Ratings are equal, the Pricing Level of the intermediate Debt Rating shall be in effect. In the event of a Rating Agency Disruption with respect to one of the three Rating Agencies, the Debt Rating of the two non-affected Rating Agencies shall be the basis for determining the Pricing Level, and if at any time there is a split in the Debt Ratings issued by such two Rating Agencies, then the higher of such Debt Ratings shall apply, unless there is a split in Debt Ratings of more than one Pricing Level, in which case the Pricing Level that is one Pricing Level higher than the Pricing Level of the lower Debt Rating shall apply. In the event of a Rating Agency Disruption with respect to two of the Rating Agencies, the Debt Rating of the one non-affected Rating Agency shall be the basis for determining the Pricing Level for a period ending on the earlier of (i) the date at least one Alternate Rating Agency is approved by the Administrative Agent and (ii) thirty (30) days following such Rating Agency Disruption, during which period the Borrower and the Administrative Agent will engage in good faith negotiations to name one or more Alternate Rating Agency. If, at the end of such period, at least one Alternate Rating Agency has not been named, Pricing Level V shall apply until at least one Alternate Rating Agency is named. In the event of a Rating Agency Disruption with respect to all three of the Rating Agencies, Pricing Level V shall apply and the Administrative Agent and the Borrower shall enter into good faith negotiations to name at least two Alternate Rating Agencies. In the event of the approval of an Alternate Rating Agency, references in the table set forth above to the Debt Ratings of the replaced Rating Agency shall be deemed to be references to the corresponding Debt Ratings of the Alternate Rating Agency.

“ Approved Fund ” shall mean any Fund that is administered or managed by (i) a Lender, (ii) an Affiliate of a Lender or (iii) an entity or an Affiliate of an entity that administers or manages a Lender.

“Asset Sale” shall mean any sale, transfer or other disposition by the Borrower or any of its Subsidiaries to any Person other than the Borrower or any Subsidiary of the Borrower of any asset or Property (including, without limitation, any capital stock or other securities of, or other Equity Interests in, another Person, but excluding the sale by the Borrower of its own capital stock) of the Borrower or such Subsidiary other than (i) sales, transfers or other dispositions of inventory made in the ordinary course of business or (ii) sales or liquidations of Cash Equivalents, it being understood and agreed that the grant of a Lien by the Borrower or any of its Subsidiaries in favor of another Person shall not in and of itself constitute an “Asset Sale” for purposes of this definition.

“Asset Securitization” shall mean a sale, other transfer or factoring arrangement by the Borrower and/or one or more of its Subsidiaries of accounts, related general intangibles and chattel paper, and the related security and collections with respect thereto to a special purpose Subsidiary (an “SPV”), and the sale, pledge or other transfer by that SPV in connection with financing provided to that SPV, which financing shall be “non-recourse” to the Borrower and its Subsidiaries (other than the SPV) except pursuant to the Standard Securitization Undertakings.

“Assignment and Assumption” shall mean an assignment and assumption entered into by a Lender and an assignee (with the consent of any party whose consent is required by Section 11.9), and accepted by the Administrative Agent, in substantially the form attached as Exhibit G or any other form approved by the Administrative Agent.

“Attributable Securitization Indebtedness” shall mean, at any time with respect to an Asset Securitization by the Borrower or any of its Subsidiaries, the principal amount of Indebtedness which (i) if the financing received by an SPV as part of such Asset Securitization is treated as a secured lending arrangement, is the principal amount of such Indebtedness, or (ii) if the financing received by the relevant SPV is structured as a purchase agreement, would be outstanding at such time if such financing were structured as a secured lending arrangement rather than a purchase agreement, and in any such case which Indebtedness is without recourse to the Borrower or any of its Subsidiaries (other than such SPV or pursuant to Standard Securitization Undertakings), in each case, together with interest payable thereon and fees payable in connection therewith.

“Bail-In Action” shall mean the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“Bail-In Legislation” shall mean, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“Bankruptcy Code” shall have the meaning provided in Section 9.1(e).

“Bankruptcy Court” shall mean the United States Bankruptcy Court for the District of Delaware.

“Base Rate” shall mean, at any time, the highest of (i) the Prime Rate (ii) the NYFRB Rate plus 0.50% and (iii) except during any period of time during which a notice delivered to the Borrower under Section 4.8 shall remain in effect, the LIBOR Rate for a one month Interest Period in Dollars on such day (or if such day is not a Business Day, the immediately preceding Business Day) plus 1.00%, provided that for the purpose of this definition, the LIBOR Rate for any day shall be based on LIBOR (or if LIBOR is not available for such one month Interest Period, the Interpolated Rate) at approximately 11:00 a.m. London time on such day. Any change in the Base Rate shall take effect simultaneously with the corresponding change or changes in the Prime Rate, the NYFRB Rate or LIBOR Rate, respectively. If the Base Rate is being used as an alternate rate of interest pursuant to Section 4.8(a) hereof, then the Base Rate shall be the higher of clause (i) and (ii) above and shall be determined without reference to clause (iii) above. For the avoidance of doubt, if the Base Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Base Rate Loan” shall mean any Loan bearing interest at a rate based upon the Base Rate as provided in Section 4.1(a).

“Borrower” shall have the meaning provided in the introductory paragraph hereto.

“Borrower Common Stock” shall mean shares of common stock of the Borrower.

“Business Day” shall mean (i) for all purposes other than as covered by clause (ii) below, any day except Saturday, Sunday and any day which shall be in New York, New York a legal holiday or a day on which banking institutions are authorized or required by law or other government action to close and (ii) with respect to all notices and determinations in connection with, and payments of principal and interest on or with respect to, any LIBOR Rate Loan, any day which is a Business Day described in clause (i) and which is also a day for trading by and between banks in Dollar deposits in the London interbank market and which shall not be a legal holiday or a day on which banking institutions are authorized or required by law or other government action to close in London, England or New York, New York.

“Capital Lease” shall mean, as applied to any Person, any lease of any Property by that Person as lessee which, in conformity with U.S. GAAP, is accounted for as a capital lease on the balance sheet of that Person.

“Capitalized Lease Obligations” shall mean, with respect to any Person, all obligations under Capital Leases of such Person, in each case taken at the amount thereof accounted for as indebtedness in accordance with U.S. GAAP.

“Cash Equivalents” shall mean, as to any Person, (i) securities issued or directly and fully guaranteed or insured by the United States or any agency or instrumentality thereof (provided that the full faith and credit of the United States is pledged in support thereof) having maturities of not more than six months from the date of acquisition, (ii) marketable direct obligations issued by any state of the United States or any political subdivision of any such state or any public instrumentality thereof maturing within six months from the date of acquisition thereof and, at the time of acquisition, having one of the two highest ratings obtainable from either S&P or Moody’s, (iii) Dollar denominated time deposits, certificates of deposit and bankers acceptances of any Lender or any commercial bank having, or which is the principal banking subsidiary of a bank holding company having, a long-term unsecured debt rating of at least “A” or the equivalent thereof from S&P or “A2” or the equivalent thereof from Moody’s with maturities of not more than six months from the date of acquisition by such Person, (iv) repurchase obligations with a term of not more than seven days for underlying securities of the types described in clause (i) above entered into with any bank meeting the qualifications specified in clause (iii) above, (v) commercial paper issued by any Person incorporated in the United States rated at least A-1 or the equivalent thereof by S&P or at least P-1 or the equivalent thereof by Moody’s and in each case maturing not more than six months after the date of acquisition by such Person, (vi) investments in money market funds substantially all of whose assets are comprised of securities of the types described in clauses (i) through (v) above, and (vii) in the case of any Foreign Subsidiary only, direct obligations of the sovereign nation (or any agency thereof) in which such Foreign Subsidiary is organized and is conducting business or in obligations fully and unconditionally guaranteed by such sovereign nation (or any agency thereof).

“CFC” shall mean a “controlled foreign corporation” as defined in Section 957 of the Code.

“Change in Law” shall mean the occurrence, after the date of this Agreement (or, with respect to any Lender, if later, the date on which such Lender becomes a Lender), of any of the following: (i) the adoption or taking effect of any law, rule, regulation or treaty, (ii) any change in any law, rule, regulation or treaty or in the administration, interpretation or application thereof by any Governmental Authority or (iii) the making or issuance of any request, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything herein to the contrary, (a) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (b) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a “Change in Law”, regardless of the date enacted, adopted or issued.

“Change of Control” shall mean (i) any “Person” or “Group” (within the meaning of Sections 13(d) and 14(d) under the Exchange Act) (A) is or shall be the “beneficial owner” (as so defined in Rules 13(d)-3 and 13(d)-5 under the Exchange Act) of 40% or more on a fully diluted basis of the aggregate ordinary voting power represented by the Borrower’s capital stock or other Equity Interests or (B) has obtained the power (whether or not exercised) to elect a

majority of the Borrower's directors, (ii) the board of directors of the Borrower shall cease to consist of a majority of Continuing Directors, or (iii) a "change of control" or similar event shall occur as provided in the Revolving Credit Agreement, in the 2017 Term Loan Agreement or in any Senior Notes Documents.

"Closing Date" shall mean the date of this Agreement or such later Business Day upon which each condition described in Section 5.1 shall be satisfied or waived in all respects in a manner acceptable to the Administrative Agent, in its sole discretion.

"Code" shall mean the Internal Revenue Code of 1986.

"Company" shall mean any corporation, limited liability company, partnership, trust or other domestic or foreign entity or organizational form (or the adjectival form thereof, where appropriate).

"Consolidated" shall mean, when used with reference to financial statements or financial statement items of any Person, such statements or items on a consolidated basis in accordance with applicable principles of consolidation under U.S. GAAP.

"Consolidated EBITDA" shall mean, for any period, Consolidated Net Income for such period (without giving effect to (x) any extraordinary gains or losses and/or any write-off of long lived or intangible assets, (y) any non-cash income, and (z) any gains or losses (in excess of \$10,000,000 for any sale) from sales of assets other than inventory sold in the ordinary course of business) adjusted by adding thereto (in each case to the extent deducted in determining Consolidated Net Income for such period), without duplication, the amount of (i) total interest expense (inclusive of amortization of deferred financing fees and other original issue discount and banking fees, charges and commissions (e.g., letter of credit fees and facility fees)) of the Borrower and its Subsidiaries determined on a consolidated basis for such period, (ii) provision for taxes based on income and foreign withholding taxes for the Borrower and its Subsidiaries determined on a consolidated basis for such period, (iii) all depreciation and amortization expense of the Borrower and its Subsidiaries determined on a consolidated basis for such period, including depletion of precious metals used in manufacturing processes and (iv) in the case of any period that includes the first Fiscal Quarter ended after the Closing Date, the amount of all fees and expenses incurred in connection with the transactions contemplated by this Agreement during such Fiscal Quarter. For the avoidance of doubt, it is understood and agreed that, to the extent any amounts are excluded from Consolidated Net Income by virtue of the proviso to the definition thereof contained herein, any add backs to Consolidated Net Income in determining Consolidated EBITDA as provided above shall be limited (or denied) in a fashion consistent with the proviso to the definition of "Consolidated Net Income" contained herein.

"Consolidated Interest Expense" shall mean, for any period, (i) the total consolidated interest expense of the Borrower and its Subsidiaries (including, without limitation, all commissions, discounts and other commitment and banking fees and charges (e.g., fees with respect to letters of credit, Interest Rate Protection Agreements and Other Hedging Agreements) for such period, adjusted to exclude (to the extent same would otherwise be included in the calculation above in this clause (i)) the amortization of any deferred financing costs for such period, capitalized interest expense and any other interest expense which, in accordance with the terms of the relevant Indebtedness, is paid-in-kind through the issuance of additional notes or added to the principal amount of such outstanding Indebtedness, in each case so long as the respective notes or Indebtedness matures after the Term Loan Maturity Date plus (ii) without duplication, (x) that portion of Capitalized Lease Obligations of the Borrower and its Subsidiaries on a consolidated basis representing the interest factor for such period and (y) the "deemed interest expense" (i.e., the interest expense which would have been applicable if the respective obligations were structured as on-balance sheet financing arrangements) with respect to all Off-Balance Sheet Liabilities of the Borrower and its Subsidiaries (to the extent the same does not arise from a financing arrangement constituting an operating lease) for such period minus interest income of the Borrower and its Subsidiaries received upon cash and Cash Equivalents.

"Consolidated Net Income" shall mean, for any period, the net income (or loss) of the Borrower and its Subsidiaries determined on a consolidated basis for such period (taken as a single accounting period) in accordance with U.S. GAAP, provided that the following items shall be excluded in computing Consolidated Net Income (without duplication): (i) the net income (or loss) of any Subsidiary that is not a Wholly-Owned Subsidiary of the Borrower,

to the pro rata extent of the Equity Interests held by Persons other than the Borrower and its Wholly-Owned Subsidiaries in such Subsidiary, (ii) except for determinations expressly required to be made on a Pro Forma Basis, the net income (or loss) of any Person accrued prior to the date it becomes a Subsidiary or all or substantially all of the property or assets of such Person are acquired by a Subsidiary and (iii) the net income of any Subsidiary to the extent that the declaration or payment of cash dividends or similar cash distributions by such Subsidiary of such net income is not at the time permitted by the operation of the terms of its charter or any agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to such Subsidiary.

“Consolidated Net Tangible Assets” shall mean the aggregate amount of assets of the Borrower and its Subsidiaries determined on a consolidated basis in accordance with U.S. GAAP (less applicable reserves and other properly deductible items) after deducting therefrom (a) all current liabilities (excluding any thereof constituting Funded Debt by reason of being extendible or renewable), (b) all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangibles, all as set forth on the books and records of the Borrower and its Subsidiaries and computed in accordance with U.S. GAAP and (c) minority Equity Interests in any Non-Wholly Owned Subsidiary.

“Consolidated Net Worth” shall mean, as of any date of determination, the Net Worth of the Borrower and its Subsidiaries on such date determined on a consolidated basis; provided that the Warrant Obligation Amount on the relevant date of determination shall be added to Consolidated Net Worth.

“Consolidated Total Capitalization” shall mean, as of any date of determination, the sum of (i) Consolidated Total Indebtedness and (ii) Consolidated Net Worth.

“Consolidated Total Indebtedness” shall mean, at any time, the sum of (without duplication) (i) all Indebtedness of the Borrower and its Subsidiaries (on a consolidated basis) as would be required to be reflected as debt or Capitalized Lease Obligations on the liability side of a consolidated balance sheet of the Borrower and its Subsidiaries in accordance with U.S. GAAP, (ii) all Indebtedness of the Borrower and its Subsidiaries of the type described in clauses (ii), (vii) and (viii) of the definition of “Indebtedness” contained herein and (iii) all Contingent Obligations of the Borrower and its Subsidiaries in respect of Indebtedness of any third Person of the type referred to in preceding clauses (i) and (ii); provided that the amount of Indebtedness in respect of the Interest Rate Protection Agreements and Other Hedging Agreements shall be at any time the unrealized net loss position, if any, of the Borrower and/or its Subsidiaries thereunder on a marked-to-market basis determined no more than one month prior to such time.

“Contingent Obligation” shall mean, as to any Person, any obligation of such Person in respect of Indebtedness of any other Person as a result of such Person being a general partner of such other Person, unless the underlying Indebtedness is expressly made non-recourse as to such general partner, and any obligation of such Person guaranteeing or intended to guarantee any Indebtedness, leases, dividends or other obligations (“primary obligations”) of any other Person (the “primary obligor”) in any manner, whether directly or indirectly, including, without limitation, any obligation of such Person, whether or not contingent, (i) to purchase any such primary obligation or any property constituting direct or indirect security therefor, (ii) to advance or supply funds (x) for the purchase or payment of any such primary obligation or (y) to maintain working capital or equity capital of the primary obligor or otherwise to maintain the net worth or solvency of the primary obligor or (iii) otherwise to assure or hold harmless the holder of such primary obligation against loss in respect thereof; provided, however, that the term Contingent Obligation shall not include endorsements of instruments for deposit or collection in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount equal to the lesser of (x) the stated or determinable amount of the primary obligation in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof (assuming such Person is required to perform thereunder) as determined by such Person in good faith and (y) the stated amount of such Contingent Obligation.

“Continuing Directors” shall mean the directors of the Borrower on the Closing Date and each other director if such director’s election to, or nomination for the election to, the board of directors of the Borrower is recommended or approved by a majority of then Continuing Directors.

“Credit Parties” shall mean the Borrower and the Subsidiary Guarantors.

“Debt Rating” shall mean the Borrower’s senior unsecured long term debt rating provided by the applicable Rating Agency.

“Default” shall mean any of the events specified in Article IX which with the passage of time, the giving of notice or any other condition, would constitute an Event of Default.

“Defaulting Lender” shall mean any Lender that (i) has failed to fund any portion of the Term Loans required to be funded by it hereunder within two Business Days of the date required to be funded by it hereunder unless such Lender notifies the Administrative Agent and the Borrower in writing that such failure is the result of such Lender’s determination that one or more conditions precedent to funding (each of which conditions precedent, together with any applicable default, shall be specifically identified in such writing) has not been satisfied, (ii) has otherwise failed to pay over to the Administrative Agent or any other Lender any other amount required to be paid by it hereunder within three Business Days of the date when due, unless such amount is the subject of a good faith dispute, (iii) has notified the Borrower, the Administrative Agent or any other Lender in writing that it does not intend to comply with any of its funding obligations under this Agreement or has made a public statement to the effect that it does not intend to comply or has failed to comply with its funding obligations under this Agreement or generally under other agreements in which it commits or is obligated to extend credit, (iv) has become or is insolvent or has become the subject of a bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee or custodian appointed for it, or has taken any action in furtherance of, or indicating its consent to, approval of or acquiescence in any such proceeding or appointment or (v) has become the subject of a Bail-In Action; provided, that a Lender shall not qualify as a Defaulting Lender solely as a result of the acquisition or maintenance of an ownership interest in such Lender or its parent company, or of the exercise of control over such Lender or any Person controlling such Lender, by a Governmental Authority or instrumentality thereof.

“Disputes” shall mean any dispute, claim or controversy arising out of, connected with or relating to this Agreement or any other Loan Document, between or among parties hereto and to the other Loan Documents.

“Dividend” shall mean, with respect to any Person, that such Person has declared or paid a dividend, distribution or returned any equity capital in cash to its stockholders, partners or members or authorized or made any other distribution, payment or delivery of property (other than common Equity Interests, or Equity Interests of the same class as the Equity Interests in respect of which such dividend or other distribution was paid, of such Person) or cash to its stockholders, partners or members in their capacity as such, or redeemed, retired, purchased or otherwise acquired, directly or indirectly, for a consideration (other than common Equity Interests, or Equity Interests of the same class as the Equity Interest in respect of which such dividend or other distribution was paid, of such Person) any shares of any class of its capital stock or any other Equity Interests outstanding on or after the Closing Date (or any options or warrants issued by such Person with respect to its capital stock or other Equity Interests), or set aside any funds for any of the foregoing purposes, or shall have permitted any of its Subsidiaries to purchase or otherwise acquire for a consideration any shares of any class of the capital stock or any other Equity Interests of such Person outstanding on or after the Closing Date (or any options or warrants issued by such Person with respect to its capital stock or other Equity Interests). For the avoidance of doubt, the purchase by the Borrower of its common Equity Interests owned by employees of the Borrower or any of its Subsidiaries in connection with stock option, stock compensation or similar plans, the proceeds of which purchase are used to pay taxes, shall not constitute “Dividends”.

“Dollars” or “\$” shall mean, unless otherwise qualified, dollars in lawful currency of the United States.

“Domestic Subsidiary” shall mean, as to any Person, any Subsidiary of such Person incorporated or organized in the United States or any State or territory thereof other than a FSHCO.

“EEA Financial Institution” shall mean (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

“EEA Member Country” shall mean any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

“EEA Resolution Authority” shall mean any public administrative authority or any Person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

“Electronic Signature” means an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a Person with the intent to sign, authenticate or accept such contract or record.

“Environmental Claims” shall mean any and all administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, written notices of non-compliance or violation, investigations or proceedings relating in any way to (i) any violation (or alleged violation) by the Borrower or any of its Subsidiaries of any Environmental Law; (ii) any permit issued to the Borrower or any of its Subsidiaries under any such law; or (iii) otherwise arising under Environmental Law, (hereafter “Claims”), including, without limitation, (a) any and all Claims by governmental or regulatory authorities for enforcement, cleanup, removal, response, remedial or other actions or damages pursuant to any applicable Environmental Law, and (b) any and all Claims by any third party seeking damages, contribution, indemnification, cost recovery, compensation or injunctive relief resulting from Hazardous Materials or arising from alleged injury or threat of injury to health, safety or the environment.

“Environmental Law” shall mean any federal, national, provincial, state or local policy having the force and effect of law, statute, law, rule, regulation, ordinance, code or rule of common law now or hereafter in effect and in each case as amended, and any judicial or administrative interpretation thereof, including any legally-binding judicial or administrative order, consent, decree or judgment (for purposes of this definition (collectively, “Laws”), relating to pollution or protection of the environment, or Hazardous Materials or health and safety to the extent such health and safety issues arise under the Occupational Safety and Health Act of 1970, as amended, or any such similar Laws.

“Equity Interests” of any Person shall mean any and all shares, interests, rights to purchase, warrants, options, participation or other equivalents of or interest in (however designated) equity of such Person, including any preferred stock, any limited or general partnership interest, any membership interest in a cooperative society and any limited liability company membership interest.

“ERISA” shall mean the Employee Retirement Income Security Act of 1974, as amended from time to time, and the rules and regulations promulgated thereunder from time to time.

“ERISA Affiliate” shall mean any trade or business (whether or not incorporated) that is treated as a single employer together with the Borrower or any of its Subsidiaries under Section 414 of the Code and for purposes of potential liability under Section 302 of ERISA and the Lien created under Section 303(k) of ERISA, under Section 414(m) or (o) of the Code.

“EU Bail-In Legislation Schedule” shall mean the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time.

“Event of Default” shall mean any of the events specified in Article IX.

“Exchange Act” shall mean the Securities Exchange Act of 1934, as amended.

“Excluded Taxes” shall mean any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Term Loan or Term Loan Commitment pursuant to a law in

effect on the date on which (i) such Lender acquires such interest in the Term Loan or Term Loan Commitment (other than pursuant to an assignment request by the Borrower under Section 4.13(b)) or (ii) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 4.12, amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender became a party hereto or to such Lender immediately before it changed its lending office, (c) Taxes attributable to such Recipient's failure to comply with Section 4.12(e) and (d) any U.S. federal withholding Taxes imposed under FATCA.

“Existing Indebtedness Agreements” shall mean all agreements evidencing or relating to any Scheduled Existing Indebtedness of the Borrower or any of its Subsidiaries.

“Extensions of Credit” shall mean, as to any Lender at any time, the making of any Term Loan or the aggregate principal amount of the portion of the Term Loan made by such Lender then outstanding, as the context requires.

“Fair Market Value” shall mean, with respect to any asset, the price at which a willing buyer, not an Affiliate of the seller, and a willing seller who does not have to sell, would agree to purchase and sell such asset, as determined in good faith by the board of directors or other governing body or senior officer of such seller.

“FATCA” shall mean Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code and any intergovernmental agreements with respect thereto.

“Federal Funds Rate” shall mean, for any day, the rate calculated by the NYFRB based on such day's federal funds transactions by depository institutions (as determined in such manner as the NYFRB shall set forth on its public website from time to time) and published on the next succeeding Business Day by the NYFRB as the federal funds effective rate; provided that if the Federal Funds Effective Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement.

“Fee Letters” shall mean, collectively, the separate fee letter agreements dated as of even date herewith, among the Borrower, the applicable Joint Lead Arranger and the Administrative Agent, as applicable.

“Fiscal Quarter” shall mean for any Fiscal Year of the Borrower and its Subsidiaries, the fiscal quarters ending on each of March 31, June 30, September 30 and December 31.

“Fiscal Year” shall mean the fiscal year of the Borrower ending on December 31 of each calendar year. For purposes of this Agreement, any particular Fiscal Year shall be designated by reference to the calendar year in which such Fiscal Year ends (e.g., Fiscal Year 2017 shall be the fiscal year of the Borrower ended December 31, 2017).

“Fitch” shall mean Fitch Ratings, Inc., and any successor to its ratings agency business.

“Foreign Lender” shall mean any Lender that is organized under the laws of a jurisdiction other than that in which the Borrower is resident for tax purposes. For purposes of this definition, the United States, each State thereof and the District of Columbia shall be deemed to constitute a single jurisdiction.

“Foreign Subsidiary” shall mean any Subsidiary that is not a Domestic Subsidiary.

“FSHCO” shall mean any domestic Subsidiary that either (i) has no material liabilities and owns no material assets other than Equity Investments in one or more CFCs and immaterial assets incidental or related thereto, or (ii) is wholly owned for purposes of the Code by one or more CFCs.

“Fund” shall mean any Person (other than a natural person) that is (or will be) engaged in making, purchasing, holding or otherwise investing in commercial loans and similar extensions of credit in the ordinary course of its business.

“Funded Debt” shall mean all Indebtedness, whether or not evidenced by a bond, debenture, note or similar instrument or agreement, of any Person, for the repayment of borrowed money having a maturity of more than 12

months from the date of its creation or having a maturity of less than 12 months from the date of its creation but by its terms being renewable or extendible beyond 12 months from such date at the option of such Person. For the purpose of determining “Funded Debt” of any Person, there shall be excluded any particular Indebtedness if, on or prior to the maturity thereof, there shall have been deposited with the proper depository in trust the necessary funds for the payment, redemption or satisfaction of such Indebtedness.

“Governmental Authority” shall mean any federal (including the federal governments of the United States and Canada), national, provincial, state or local government (and any political subdivision thereof), and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

“Guaranteed Creditors” shall mean collectively, the Lenders, the Administrative Agent, any other holder from time to time of any of the Obligations and, in each case, their respective successors and permitted assigns.

“Hazardous Materials” shall mean (i) any petrochemical or petroleum products, radioactive materials, asbestos in any form that is or could become friable, urea formaldehyde foam insulation, transformers or other equipment that contain dielectric fluid containing levels of polychlorinated biphenyls, and radon gas; and (ii) any chemicals, materials, substances or mixtures regulated under Environmental Laws, including, without limitation, those defined as or included in the definition of “hazardous substances”, “hazardous wastes”, “hazardous materials”, “extremely hazardous substances”, “toxic substances”, “toxic pollutants”, “contaminants” or “pollutants”, or words of similar meaning and regulatory effect.

“Immaterial Subsidiaries” shall mean Wholly-Owned Domestic Subsidiaries of the Borrower which together account for less than five percent (5%) of each of Consolidated Net Tangible Assets and Consolidated Net Income of the Borrower and its Subsidiaries (with Consolidated Net Income being determined by the Borrower in good faith (and without regard to clauses (ii) and (iii) of the proviso of the definition thereof to the extent relating to the Consolidated Net Income attributable to any Wholly-Owned Domestic Subsidiary that is not a Subsidiary Guarantor) on a pro forma basis in the case of Subsidiaries acquired or created after the first day of the respective Test Period, and Subsidiaries which have received significant transfers of assets after the first day of the respective Test Period), in each case determined as of the end of, or for, as the case may be, the Test Period most recently ended for which financial statements have been or are required to have been delivered pursuant to Section 7.1(a) or (b), as applicable.

“Impacted Interest Period” shall have the meaning assigned to such term in the definition of “LIBOR”.

“Indebtedness” shall mean, as to any Person, without duplication, (i) all indebtedness of such Person for borrowed money or for the deferred purchase price of property or services, (ii) the maximum amount available to be drawn or paid under all letters of credit, bankers’ acceptances, bank guaranties, surety and appeal bonds and similar obligations issued for the account of such Person and all unpaid drawings and unreimbursed payments in respect of such letters of credit, bankers’ acceptances, bank guaranties, surety and appeal bonds and similar obligations, (iii) all indebtedness of the types described in clause (i), (ii), (iv), (v), (vi), (vii) or (viii) of this definition secured by any Lien on any property owned by such Person, whether or not such indebtedness has been assumed by such Person (provided that, if the Person has not assumed or otherwise become liable in respect of such indebtedness, such indebtedness shall be deemed to be in an amount equal to the lesser of (1) the Fair Market Value of the property to which such Lien relates as determined in good faith by such Person or (2) the amount of such Indebtedness), (iv) the aggregate amount of all Capitalized Lease Obligations of such Person, (v) all obligations of such Person to pay a specified purchase price for goods or services, whether or not delivered or accepted, i.e., take-or-pay and similar obligations (other than ordinary course trade accounts payable not overdue by more than 60 days), (vi) all Contingent Obligations of such Person, (vii) all obligations under any Interest Rate Protection Agreement, any Other Hedging Agreement or under any similar type of agreement determined on a marked-to-market basis and (viii) all Off-Balance Sheet Liabilities of such Person. Notwithstanding the foregoing, Indebtedness shall not include the Warrant Obligation Amount, trade payables, accrued expenses, operating leases (which in no event shall constitute Capital Leases) and deferred tax and other credits incurred by any Person in accordance with customary practices and in the ordinary course of business of such Person.

“Indemnified Taxes” shall mean Taxes and Other Taxes other than Excluded Taxes.

“Indemnitee” shall have the meaning provided in Section 11.3(b).

“Intercompany Loan” shall have the meaning provided in Section 8.5(vii).

“Interest Expense Coverage Ratio” shall mean, for any period, the ratio of (i) Consolidated EBITDA for such period to (ii) Consolidated Interest Expense for such period.

“Interest Period” shall have the meaning provided in Section 4.1(b).

“Interest Rate Protection Agreement” shall mean any interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate hedging agreement, interest rate floor agreement or other similar agreement or arrangement.

“Interpolated Rate” shall mean, at any time, for any Interest Period, the rate per annum determined by the Administrative Agent (which determination shall be conclusive and binding absent manifest error) to be equal to the rate that results from interpolating on a linear basis between: (a) the LIBOR Screen Rate for the longest period (for which the LIBOR Screen Rate is available for the applicable currency) that is shorter than the Impacted Interest Period and (b) the LIBOR Screen Rate for the shortest period (for which the LIBOR Screen Rate is available for the applicable currency) that exceeds the Impacted Interest Period, in each case, at such time; provided that if any Interpolated Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Investment” shall have the meaning provided in the preamble to Section 8.5.

“Joint Lead Arrangers” shall mean the collective reference to JPMorgan Chase Bank, N.A., Citigroup Global Markets Inc. and Wells Fargo Securities, LLC, each in its capacity as joint lead arranger and joint bookrunner, and each of their successors.

“JPMorgan” shall mean JPMorgan Chase Bank, N.A., a national banking association, and its successors.

“Leasehold” shall mean, with respect to any Person, all of the right, title and interest of such Person as lessee or licensee in, to and under leases or licenses of land, improvements and/or fixtures.

“Lender” shall have the meaning provided in the introductory paragraph hereof.

“Lending Office” shall mean, with respect to any Lender, the office of such Lender maintaining such Lender’s Extensions of Credit.

“LIBOR” shall mean, with respect to any LIBOR Rate Loan for any applicable Interest Period, the London interbank offered rate as administered by ICE Benchmark Administration (or any other Person that takes over the administration of such rate) for Dollars for a period equal in length to such Interest Period as displayed on pages LIBOR01 or LIBOR02 of the Reuters screen that displays such rate or, in the event such rate does not appear on a Reuters page or screen, on any successor or substitute page on such screen that displays such rate, or on the appropriate page of such other information service that publishes such rate as shall be selected by the Administrative Agent from time to time in its reasonable discretion (in each case the “LIBOR Screen Rate”) at approximately 11:00 a.m., London time, two (2) Business Days prior to the commencement of such Interest Period; provided that, if the LIBOR Screen Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement; provided, further, that if a LIBOR Screen Rate shall not be available at such time for such Interest Period (the “Impacted Interest Period”), then LIBOR for such Interest Period shall be the Interpolated Rate; provided, that, if any Interpolated Rate shall be less than zero, such rate shall be deemed to be zero for the purposes of this Agreement. It is understood and agreed that (i) each calculation of LIBOR shall be conclusive and binding for all purposes, absent manifest error and (ii) all of the terms and conditions of this definition of “LIBOR” shall be subject to Section 4.8(a).

“LIBOR Rate” shall mean a rate per annum (rounded upwards, if necessary, to the next higher 1/100th of 1%) equal to (a) LIBOR for such Interest Period multiplied by (b) the Statutory Reserve Rate.

“LIBOR Rate Loan” shall mean any Loan (other than a Base Rate Loan) bearing interest at a rate based upon the LIBOR Rate as provided in Section 4.1(a).

“LIBOR Screen Rate” shall have the meaning provided in the definition of “LIBOR”.

“Lien” shall mean any mortgage, pledge, hypothecation, assignment, deposit arrangement, security interest, encumbrance, lien (statutory or other), charge, preference, priority or other security agreement or arrangement of any kind or nature whatsoever (including any agreement to give any of the foregoing). For purposes of this Agreement, the Borrower or its respective Subsidiaries shall be deemed to own, subject to a Lien, any asset which it has acquired or holds subject to the interest of a vendor or lessor under any conditional sale agreement, capital lease or other similar title retention agreement relating to such asset, and sales of accounts receivable with recourse to the Borrower or any of its Subsidiaries shall be deemed to create a Lien on accounts receivable of the Borrower or the respective Subsidiary.

“Loan Documents” shall mean, collectively, this Agreement, each Term Loan Note, the Subsidiary Guaranty Agreement, each amendment of the foregoing, and each other document, instrument, certificate and agreement executed and delivered by the Credit Parties or any of their respective Subsidiaries in favor of or provided to the Administrative Agent or any Guaranteed Creditor pursuant to any of the foregoing, all as may be amended, restated, supplemented or otherwise modified from time to time.

“Margin Stock” shall have the meaning provided in Regulation U.

“Material Adverse Effect” shall mean (i) a material adverse effect on the business, assets, operations, properties, liabilities or financial condition of the Borrower and its Subsidiaries taken as a whole, or (ii) a material adverse effect (x) on the rights or remedies of the Lenders or the Administrative Agent hereunder or under the other Loan Documents, taken as a whole or (y) on the ability of the Credit Parties to perform their obligations to the Lenders or the Administrative Agent hereunder or under the other Loan Documents, taken as a whole.

“Material Subsidiary” shall mean, at any time, each Wholly-Owned Domestic Subsidiary of the Borrower that, taken together with all other Wholly-Owned Domestic Subsidiaries that are not Subsidiary Guarantors, would not be an Immaterial Subsidiary; provided that, if, as of any date of determination, all Wholly-Owned Domestic Subsidiaries of the Borrower that are not Subsidiary Guarantors fail to constitute Immaterial Subsidiaries (as determined in accordance with the requirements of the definition thereof and the relevant provisions of Section 7.12), then the Borrower shall determine which Wholly-Owned Domestic Subsidiary (or Wholly-Owned Domestic Subsidiaries) shall constitute Material Subsidiaries for purposes of compliance with the requirements of Section 7.12.

“Moody’s” shall mean Moody’s Investors Service, Inc. and any successor thereto.

“Multiemployer Plan” shall mean (i) any plan, as defined in Section 4001(a)(3) of ERISA, which is maintained or contributed to (or to which there is an obligation to contribute to) by the Borrower or an ERISA Affiliate and that is subject to Title IV of ERISA, and (ii) each such plan for the five year period immediately following the latest date on which the Borrower or an ERISA Affiliate maintained, contributed to or had an obligation to contribute to such plan.

“Net Sale Proceeds” shall mean for any sale or other disposition of assets, the gross cash proceeds (including any cash received by way of deferred payment pursuant to a promissory note, receivable or otherwise, but only as and when received) received from such sale or other disposition of assets, net of (i) reasonable transaction costs (including, without limitation, any underwriting, brokerage or other customary selling commissions, reasonable legal, advisory and other fees and expenses (including title and recording expenses), associated therewith and sales, VAT and transfer taxes arising therefrom), (ii) payments of unassumed liabilities relating to the assets sold or otherwise disposed of at the time of, or within 30 days after, the date of such sale or other disposition, (iii) the amount of such gross cash proceeds required to be used to permanently repay any Indebtedness (other than Indebtedness of the Lenders pursuant to this Agreement) which is secured by the respective assets which were sold or otherwise disposed of, and (iv) the estimated net marginal increase in income taxes which will be payable by the Borrower’s consolidated group or any Subsidiary of the Borrower with respect to the Fiscal Year in which the sale or other disposition occurs as a result of

such sale or other disposition; provided, however, that such gross proceeds shall not include any portion of such gross cash proceeds which the Borrower determines in good faith should be reserved for post-closing adjustments, it being understood and agreed that on the day that all such post-closing adjustments have been determined (which shall not be later than six months following the date of the respective asset sale), the amount (if any) by which the reserved amount in respect of such sale or disposition exceeds the actual post-closing adjustments payable by the Borrower or any of its Subsidiaries shall constitute Net Sale Proceeds on such date received by the Borrower and/or any of its Subsidiaries from such sale or other disposition.

“Net Worth” shall mean, as to any Person, the sum of its capital stock, capital in excess of par or stated value of shares of its capital stock, retained earnings and any other account which, in accordance with U.S. GAAP, constitutes stockholders equity, excluding any treasury stock.

“Non-Consenting Lender” shall mean any Lender that has not consented to any proposed amendment, modification, waiver or termination of any Loan Document which, pursuant to Section 11.2, requires the consent of all Lenders or all affected Lenders and with respect to which the Required Lenders shall have granted their consent.

“Non-Guarantor Subsidiaries” shall mean, at any time, the Subsidiaries of the Borrower that are not at such time Subsidiary Guarantors.

“Non-U.S. Plan” shall mean any plan, fund or other similar program that (i) is established or maintained outside the United States of America by the Borrower or any of its Subsidiaries primarily for the benefit of employees of the Borrower or one or more of its Subsidiaries residing outside the United States of America, which plan, fund or other similar program provides or results in, retirement income, a deferral of income in contemplation of retirement or payments to be made upon termination of employment, and (ii) is not subject to ERISA or the Code.

“Non-Wholly Owned Subsidiary” shall mean, as to any Person, each Subsidiary of such Person which is not a Wholly-Owned Subsidiary of such Person.

“Notice of Account Designation” shall have the meaning provided in Section 3.2.

“Notice of Borrowing” shall have the meaning provided in Section 3.2.

“Notice of Conversion/Continuation” shall have the meaning provided in Section 4.2.

“Notice of Prepayment” shall have the meaning provided in Section 3.4.

“NYFRB” shall mean the Federal Reserve Bank of New York.

“NYFRB Rate” shall mean, for any day, the greater of (a) the Federal Funds Effective Rate in effect on such day and (b) the Overnight Bank Funding Rate in effect on such day (or for any day that is not a Business Day, for the immediately preceding Business Day); provided that if none of such rates are published for any day that is a Business Day, the term “NYFRB Rate” means the rate for a federal funds transaction quoted at 11:00 a.m., New York City time, on such day received by the Administrative Agent from a Federal funds broker of recognized standing selected by it; provided, further, that if any of the aforesaid rates shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“Obligations” shall mean, in each case, whether now in existence or hereafter arising: (i) the principal of and interest on (including interest accruing after the filing of any bankruptcy or similar petition) the Term Loans and (ii) all other fees and commissions (including reasonable and documented attorneys’ fees), charges, indebtedness, loans, liabilities, financial accommodations, obligations, covenants and duties owing by the Credit Parties or any of their respective Subsidiaries to the Guaranteed Creditors or the Administrative Agent, in each case under any Loan Document, with respect to the Term Loan, of every kind, nature and description, direct or indirect, absolute or contingent, due or to become due, contractual or tortious, liquidated or unliquidated, and whether or not evidenced by any note.

“OFAC” shall mean the U.S. Department of the Treasury’s Office of Foreign Assets Control.

“Off-Balance Sheet Liabilities” shall mean, with respect to any Person (i) any repurchase obligation or liability of such Person with respect to accounts or notes receivable sold by such Person or (ii) any obligation under a Synthetic Lease; provided that, lease payments with respect to leases of precious metal alloy (and obligations to return the precious metal alloy) owing by the Borrower and any of its Subsidiaries in connection with the ongoing business of such Person (or guarantees thereof) to the owners of such precious metal alloy and other Persons providing financing to such owners in respect of such precious metal alloy (in each case other than the Borrower and its Subsidiaries) shall in no event constitute “Off-Balance Sheet Liabilities”.

“Officer’s Compliance Certificate” shall mean a certificate of the chief financial officer or the treasurer of the Borrower substantially in the form attached as Exhibit F.

“Other Connection Taxes” shall mean, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

“Other Hedging Agreements” shall mean any foreign exchange contracts, currency swap agreements, commodity hedging agreements or other similar agreements or arrangements designed to protect against fluctuations in currency values or the prices of commodities used in the business of the Borrower and its Subsidiaries.

“Other Taxes” shall mean all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 4.13(b)).

“Overnight Bank Funding Rate” shall mean, for any day, the rate comprised of both overnight federal funds and overnight eurodollar borrowings by U.S.-managed banking offices of depository institutions, as such composite rate shall be determined by the NYFRB as set forth on its public website from time to time, and published on the next succeeding Business Day by the NYFRB as an overnight bank funding rate (from and after such date as the NYFRB shall commence to publish such composite rate).

“Paroc Acquisition” shall mean the acquisition by the Borrower or any of its subsidiaries of Parry1 Holding AB and, as appropriate, its subsidiaries.

“Participant” shall have the meaning provided in Section 11.9(d).

“Participant Register” shall have the meaning provided in Section 11.9(g).

“PBGC” shall mean the Pension Benefit Guaranty Corporation referred to and defined in ERISA or any successor thereto.

“Permitted Acquisition” shall have the meaning provided in Section 8.2(ix).

“Permitted Liens” shall have the meaning provided in Section 8.1.

“Person” shall mean any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, governmental authority or other entity.

“Plan” shall mean an “employee benefit plan” (as defined in Section 3(3) of ERISA) subject to Title IV of ERISA that is or, within the preceding five years, has been established or maintained, or to which contributions are

or, within the preceding five years, have been made or required to be made, by the Borrower or any ERISA Affiliate or with respect to which the Borrower or any ERISA Affiliate may have any liability.

“Preferred Equity” shall mean, as applied to the Equity Interests of any Person, Equity Interests of such Person (other than common stock of such Person) of any class or classes (however designed) that ranks prior, as to the payment of dividends or as to the distribution of assets upon any voluntary or involuntary liquidation, dissolution or winding up of such Person, to Equity Interests of any other class of such Person.

“Prime Rate” shall mean, at any time, the rate of interest per annum publicly announced from time to time by JPMorgan as its prime rate. Each change in the Prime Rate shall be effective as of the opening of business on the day such change in such prime rate occurs. The parties hereto acknowledge that the rate announced publicly by JPMorgan as its prime rate is an index or base rate and shall not necessarily be its lowest or best rate charged to its customers or other banks.

“Pro Forma Basis” shall mean, in connection with any calculation of compliance with any financial covenant or financial term, the calculation thereof after giving effect on a pro forma basis to (x) the incurrence of any Indebtedness (other than revolving Indebtedness, except to the extent same is incurred to refinance other outstanding Indebtedness or to finance a Permitted Acquisition) after the first day of the relevant Test Period, as if such Indebtedness had been incurred (and the proceeds thereof applied) on the first day of such Test Period, (y) the permanent repayment of any Indebtedness (other than revolving Indebtedness, except to the extent accompanied by a corresponding permanent commitment reduction) after the first day of the relevant Test Period, as if such Indebtedness had been retired or repaid on the first day of such Test Period, and (z) any Permitted Acquisition or any Significant Asset Sale then being consummated as well as any other Permitted Acquisition or any other Significant Asset Sale if consummated after the first day of the relevant Test Period, and on or prior to the date of the respective Permitted Acquisition or Significant Asset Sale, as the case may be, then being effected, with the following rules to apply in connection therewith:

(i) all Indebtedness (x) (other than revolving Indebtedness, except to the extent same is incurred to refinance other outstanding Indebtedness or to finance Permitted Acquisitions) incurred or issued after the first day of the relevant Test Period (whether incurred to finance a Permitted Acquisition, to refinance Indebtedness or otherwise) shall be deemed to have been incurred or issued (and the proceeds thereof applied) on the first day of such Test Period, and remain outstanding through the date of determination and (y) (other than revolving Indebtedness, except to the extent accompanied by a corresponding permanent commitment reduction) permanently retired or redeemed after the first day of the relevant Test Period, shall be deemed to have been retired or redeemed on the first day of such Test Period and remain retired through the date of determination;

(ii) all Indebtedness assumed to be outstanding pursuant to preceding clause (i) shall be deemed to have borne interest at (x) the rate applicable thereto, in the case of fixed rate indebtedness, or (y) the rates which would have been applicable thereto during the respective period when same was deemed outstanding, in the case of floating rate Indebtedness (although interest expense with respect to any Indebtedness for periods while same was actually outstanding during the respective period shall be calculated using the actual rates applicable thereto while same was actually outstanding); provided that all Indebtedness (whether actually outstanding or deemed outstanding) bearing interest at a floating rate of interest shall be tested on the basis of the rates applicable at the time the determination is made pursuant to said provisions; and

(iii) in making any determination of Consolidated EBITDA on a Pro Forma Basis, proforma effect shall be given to any Permitted Acquisition or any Significant Asset Sale if effected during the respective Test Period as if same had occurred on the first day of the respective Test Period taking into account, in the case of any Permitted Acquisition, factually supportable and identifiable cost savings and expenses which would otherwise be accounted for as an adjustment pursuant to Article XI of Regulation S-X under the Securities Act, as if such cost savings or expenses were realized on the first day of the respective period but without taking into account any pro forma cost savings and expenses.

“Property” shall mean, with respect to any Person, any and all property, whether real, personal, tangible, intangible or mixed, of such Person, or other assets owned, leased, or operated by such Person.

“Qualified Preferred Stock” shall mean any Preferred Equity of the Borrower, the express terms of which shall provide that dividends thereon shall not be required to be paid at any time (and to the extent) that such payment would be prohibited by the terms of this Agreement or any other agreement of the Borrower or any of its Subsidiaries relating to outstanding indebtedness and which, by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable), or upon the happening of any event (including any change of control event), cannot mature (excluding any maturity as the result of an optional redemption by the issuer thereof) and is not mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, and is not redeemable, or required to be repurchased, at the sole option of the holder thereof (including, without limitation, upon the occurrence of an change of control event), in whole or in part, on or prior to one year following the Term Loan Maturity Date then in effect.

“Rating Agency” shall mean S&P (for so long as no Rating Agency Disruption has occurred with respect thereto), Moody’s (for so long as no Rating Agency Disruption has occurred with respect thereto) and Fitch (for so long as no Rating Agency Disruption has occurred with respect thereto) and, following a Rating Agency Disruption, an Alternate Rating Agency named pursuant hereto, and “Rating Agencies” shall mean three of the foregoing.

“Rating Agency Disruption” shall mean any event or occurrence resulting in the failure of any current Rating Agency to provide debt ratings generally to corporate borrowers.

“Real Property” of any Person shall mean all of the right, title and interest of such Person in and to land, improvements and fixtures, including Leaseholds.

“Recipient” shall mean (a) the Administrative Agent and (b) any Lender.

“Register” shall have the meaning provided in Section 11.9(c).

“Related Parties” shall mean, with respect to any Person, such Person’s Affiliates and the partners, directors, officers, employees, agents and advisors of such Person and of such Person’s Affiliates.

“Release” shall have the meaning set forth in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (“CERCLA”) (42 U.S.C. Section 9601 et seq.).

“Reportable Event” shall mean an event described in Section 4043(c) of ERISA with respect to a Plan that is subject to Title IV of ERISA other than those events as to which the 30-day notice period under ERISA has been waived under subsection .22, .23, .25, .27, or .28 of PBGC Regulation Section 4043.

“Required Lenders” shall mean, at any date, any combination of Lenders holding more than fifty percent (50%) of the aggregate amount of the Term Loan Commitment or, if the Term Loan Commitment has been terminated, of the outstanding principal amount of the Term Loan; provided that the Term Loan Commitment of, and the portion of the Term Loan, as applicable, held by, any Defaulting Lender shall be excluded for purposes of making a determination of Required Lenders.

“Responsible Officer” shall mean, as to any Person, the chief executive officer, president, chief financial officer, treasurer, assistant treasurer, secretary or assistant secretary of such Person or any other officer of such Person reasonably acceptable to the Administrative Agent. Any document delivered hereunder or under any other Loan Document that is signed by a Responsible Officer of a Person shall be conclusively presumed to have been authorized by all necessary corporate, partnership and/or other action on the part of such Person and such Responsible Officer shall be conclusively presumed to have acted on behalf of such Person.

“Returns” shall have the meaning provided in Section 6.9.

“Revolving Credit Agreement” shall mean the Amended and Restated Credit Agreement, dated as of November 13, 2015, as amended by the First Amendment thereto dated as of March 22, 2016, as further amended by the Second Amendment thereto dated as of May 27, 2016, among the Borrower, certain subsidiaries of the Borrower party thereto

as borrowers, the lenders from time to time party thereto and Well Fargo Bank, National Association, as administrative agent, as amended, restated, supplemented, modified, replaced or refinanced from time to time.

“S&P” shall mean Standard & Poor’s Financial Services LLC, and any successor to its ratings agency business.

“Sanctioned Country” shall mean a country, region or territory which is itself the subject or target of any Sanctions Laws including, those countries subject to a sanctions program identified on the list maintained by OFAC and currently available at <http://www.treas.gov/offices/enforcement/ofac/programs>, or as otherwise published from time to time, for which the sanctions program takes the form of a comprehensive trade embargo, including as of the Closing Date Crimea, Cuba, Iran, North Korea, Sudan and Syria.

“Sanctioned Person” shall mean, any of the following currently or in the future: (i) an entity, vessel, or individual named on the list of Specially Designated Nationals or Blocked Persons maintained by OFAC currently available at <http://www.treasury.gov/resource-center/sanctions/SDNList/Pages/default.aspx> or on the consolidated list of persons, groups, and entities subject to EU financial sanctions currently available at http://eeas.europa.eu/cfsp/sanctions/consolist_en.htm; or (ii) anyone more than 50-percent owned by an entity or individual described in (i) above; or (iii) (A) an agency or instrumentality of, or an entity owned or controlled by, the government of a Sanctioned Country, (B) an entity located in a Sanctioned Country, or (C) an individual who is a citizen or resident of, or located in, a Sanctioned Country; or (iv) an entity or individual engaged in activities sanctionable under CISADA (as defined under Sanctions Laws), ITRA (as defined under Sanctions Laws), IFCA (as defined under Sanctions Laws below), or any other Sanctions Laws as amended from time to time.

“Sanctions Laws” shall mean the laws, regulations, and rules promulgated or administered by OFAC to implement U.S. sanctions programs, including any enabling legislation or Executive Order related thereto, as amended from time to time; the US Comprehensive Iran Sanctions, Accountability, and Divestment Act and the regulations and rules promulgated thereunder (“CISADA”), as amended from time to time; the US Iran Threat Reduction and Syria Human Rights Act and the regulations and rules promulgated thereunder (“ITRA”), as amended from time to time; the US Iran Freedom and Counter-Proliferation Act and the regulations and rules promulgated thereunder (“IFCA”); the sanctions and other restrictive measures applied by the European Union in pursuit of the Common Foreign and Security Policy objectives set out in the Treaty on European Union; and any similar sanctions laws as may be enacted from time to time in the future by the U.S., Canada, the European Union (and its Member States), or the Security Council or any other legislative body of the United Nations; and any corresponding laws of jurisdictions in which the Borrower or any of its Affiliates operates or in which the proceeds of any Term Loan will be used or from which funds used to repay any Obligation will be derived.

“Scheduled Existing Indebtedness” shall mean the Indebtedness listed on Schedule 6.18 on the Closing Date.

“SEC” shall mean the Securities and Exchange Commission, or any Governmental Authority succeeding to any of its principal functions.

“Senior Notes Documents” shall mean, collectively, (i) that certain Indenture dated as of June 2, 2009 (and each supplemental indenture thereto) by and among the Borrower, certain of the Borrower’s subsidiaries and Wells Fargo Bank, National Association, as trustee pursuant to which senior notes were issued by the Borrower and each other agreement, document or instrument relating to the issuance of such senior notes, as the same may be amended, restated, modified and/or supplemented from time to time in accordance with the terms hereof and thereof, and (ii) that certain Indenture dated as of October 31, 2006 (and each supplemental indenture thereto) by and among the Borrower, each of the guarantors named therein and Wells Fargo Bank, National Association, as trustee pursuant to which senior notes were issued by the Borrower and each other agreement, document or instrument relating to the issuance of such senior notes, as the same may be amended, restated, modified and/or supplemented from time to time in accordance with the terms hereof and thereof.

“Significant Asset Sale” shall mean each Asset Sale which generates Net Sale Proceeds of at least \$100,000,000.

“SPV” shall have the meaning provided in the definition of Asset Securitization.

“Standard Securitization Undertakings” shall mean, with respect to an Asset Securitization, representations, warranties, covenants and indemnities entered into by the Borrower or any Subsidiary thereof in connection with such Asset Securitization, which are reasonably customary in asset securitizations for the types of assets subject to the respective Asset Securitization.

“Statutory Reserve Rate” shall mean a fraction (expressed as a decimal), the numerator of which is the number one and the denominator of which is the number one minus the aggregate of the maximum reserve percentages (including any marginal, special, emergency or supplemental reserves) expressed as a decimal established by the Board to which the Administrative Agent is subject for eurocurrency funding (currently referred to as “Eurocurrency Liabilities” in Regulation D of the Board). Such reserve percentages shall include those imposed pursuant to such Regulation D of the Board. LIBOR Rate Loans shall be deemed to constitute eurocurrency funding and to be subject to such reserve requirements without benefit of or credit for proration, exemptions or offsets that may be available from time to time to any Lender under such Regulation D of the Board or any comparable regulation. The Statutory Reserve Rate shall be adjusted automatically on and as of the effective date of any change in any reserve percentage.

“Subsidiary” shall mean, with respect to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock of each class or other interests having ordinary voting power (other than stock or other interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such entity are at the time owned, or management of which is otherwise controlled: (a) by such Person, (b) by one or more Subsidiaries of such Person or (c) by such Person and one or more Subsidiaries of such Person.

“Subsidiary Guarantor” shall mean each Subsidiary of the Borrower which has executed and delivered the Subsidiary Guaranty Agreement, unless and until such time as the respective Subsidiary is released from all of its obligations under the Subsidiary Guaranty Agreement in accordance with the terms and provisions thereof.

“Subsidiary Guaranty Agreement” shall mean the unconditional guaranty agreement of even date herewith executed by the Subsidiary Guarantors in favor of the Administrative Agent, for the ratable benefit of the Guaranteed Creditors, substantially in the form attached as Exhibit H, as amended, restated, supplemented or otherwise modified from time to time.

“Synthetic Lease” shall mean a lease transaction under which the parties intend that (i) the lease will be treated as an “operating lease” by the lessee and for financial reporting purposes but (ii) the lessee will be entitled to various tax and other benefits ordinarily available to owners (as opposed to lessees) of like property.

“Taxes” shall mean all present or future taxes, levies, imposts, duties, deductions, withholdings, assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“Term Loan” shall mean a term loan made, or to be made, to the Borrower pursuant to Section 3.1 or all such term loans collectively, as the context requires.

“Term Loan Amount” shall mean the aggregate principal amount of the Term Loan made by the Lenders on the Term Loan Funding Date.

“Term Loan Commitment” shall mean (i) as to any Lender, the obligation of such Lender to make a portion of the Term Loan to the account of the Borrower hereunder pursuant to Section 3.1 on the Term Loan Funding Date in the principal amount set forth opposite such Lender’s name on Schedule 1.1, or (ii) as to all Lenders, the aggregate of the commitments of all such Lenders to make their respective portion of the Term Loan pursuant to Section 3.1. The aggregate Term Loan Commitment of the Lenders on the Closing Date shall be \$300,000,000.

“Term Loan Facility” shall mean the term loan facility established pursuant to Article III.

“Term Loan Funding Date” shall mean the date of the funding of the Term Loan, which date shall occur after the Closing Date but not later than April 27, 2018.

“Term Loan Maturity Date” shall mean the earlier of (a) October 26, 2018 or (b) the date of acceleration of the Term Loan pursuant to Section 9.2(a).

“Term Loan Note” shall mean a promissory note made by the Borrower in favor of a Lender evidencing the portion of the Term Loan made by such Lender, substantially in the form attached as Exhibit A, and any amendments, supplements and modifications thereto, any substitutes therefor, and any replacements, restatements, renewals or extension thereof, in whole or in part.

“Term Loan Percentage” shall mean, as to any Lender, the ratio of (a) the amount of the undrawn Term Loan Commitment of such Lender (or, if the Term Loan Commitment has been terminated, the outstanding principal balance of the Term Loan of such Lender) to (b) the amount of the aggregate undrawn Term Loan Commitments of all Lenders (or, if the Term Loan Commitment has been terminated, the aggregate outstanding principal balance of the Term Loan of all Lenders).

“Test Period” shall mean each period of four consecutive Fiscal Quarters then last ended in each case taken as one accounting period.

“Ticking Fee” shall have the meaning provided in Section 4.3(a).

“Transaction” shall mean, collectively, (i) the entering into of the Loan Documents and the incurrence of the Term Loan on the Term Loan Funding Date and (ii) the payment of fees and expenses in connection with the foregoing.

“2017 Term Loan Credit Agreement” shall mean the Term Loan Agreement, dated as of even date herewith, among the Borrower, the lenders from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent, as amended, restated, supplemented, modified, replaced or refinanced from time to time.

“U.S.” or “United States” shall mean the United States of America.

“U.S. GAAP” shall mean generally accepted accounting principles in the United States of America as in effect from time to time; provided that determinations in accordance with U.S. GAAP for purposes of Article VIII, including defined terms as used therein, are subject (to the extent provided therein) to Section 1.3(b).

“U.S. Tax Compliance Certificate” shall have the meaning provided in Section 4.12(e)(i)(B)(iii).

“Wholly-Owned Domestic Subsidiary” shall mean, as to any Person, any Wholly-Owned Subsidiary of such Person which is a Domestic Subsidiary. Notwithstanding the foregoing, no SPV that is a party to an Asset Securitization permitted hereunder shall be deemed to constitute a “Wholly-Owned Domestic Subsidiary” for purposes of (i) the definitions of “Immaterial Subsidiary” and “Material Subsidiary” set forth herein and (ii) Section 7.12 hereof.

“Wholly-Owned Subsidiary” shall mean, as to any Person, (i) any corporation 100% of whose capital stock (other than director’s qualifying shares and/or other nominal amounts of shares required by applicable law to be held by Persons other than such Person) is at the time owned by such Person and/or one or more Wholly-Owned Subsidiaries of such Person and (ii) any partnership, limited liability company, association, joint venture or other entity in which such Person and/or one or more Wholly-Owned Subsidiaries of such Person has a 100% Equity Interest at such time; provided that any Foreign Subsidiary of such Person at least 90% of whose capital stock or other Equity Interests are owned by such Person and/or one or more Wholly-Owned Subsidiaries (determined after giving effect to this proviso) of such Person at such time shall be deemed to be a Wholly-Owned Subsidiary of such Person.

“Write-Down and Conversion Powers” shall mean, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for

the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

SECTION 1.2 Other Definitions and Provisions

With reference to this Agreement and each other Loan Document, unless otherwise specified herein or in such other Loan Document: (a) the definitions of terms herein shall apply equally to the singular and plural forms of the terms defined, (b) whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms, (c) the words “include”, “includes” and “including” shall be deemed to be followed by the phrase “without limitation”, (d) the word “will” shall be construed to have the same meaning and effect as the word “shall”, (e) any reference herein to any Person shall be construed to include such Person’s successors and assigns, (f) the words “herein”, “hereof” and “hereunder”, and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (g) all references herein to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, this Agreement, (h) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights, (i) the term “documents” includes any and all instruments, documents, agreements, certificates, notices, reports, financial statements and other writings, however evidenced, whether in physical or electronic form, (j) in the computation of periods of time from a specified date to a later specified date, the word “from” means “from and including;” the words “to” and “until” each mean “to but excluding;” and the word “through” means “to and including” and (k) Section headings herein and in the other Loan Documents are included for convenience of reference only and shall not affect the interpretation of this Agreement or any other Loan Document.

SECTION 1.3 Accounting Terms.

- (a) All accounting terms not specifically or completely defined herein shall be construed in conformity with, and all financial data and financial statements (including financial ratios and other financial calculations) required to be submitted pursuant to this Agreement shall be prepared in conformity with U.S. GAAP, applied on a consistent basis, as in effect from time to time and consistent with those used in preparing the audited financial statements required by Section 7.1(b), provided, that (i) if, at any time any change in U.S. GAAP would affect the computation of any financial ratio or requirement set forth in any Loan Document, and either the Borrower or the Required Lenders shall so request, the Administrative Agent, the Lenders and the Borrower shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in U.S. GAAP (subject to the approval of the Required Lenders); provided, that, until so amended (A) such ratio or requirement shall continue to be computed in accordance with U.S. GAAP prior to such change therein and (B) the Borrower shall provide to the Administrative Agent and the Lenders financial statements and other documents required under this Agreement or as reasonably requested hereunder setting forth a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in U.S. GAAP, (ii) to the extent expressly required pursuant to the provisions of this Agreement, certain calculations shall be made on a Pro Forma Basis, and (iii) for purposes of determining compliance with any incurrence or expenditure tests set forth in Articles VII and/or VIII (excluding Section 8.7 or 8.8), any amounts so incurred or expended (to the extent incurred or expended in a currency other than Dollars) shall be converted into Dollars on the basis of the exchange rates (as shown on the Reuters World Currency Page for such currency or, if the same does not provide such exchange rate, by reference to such other publicly available service for displaying exchange rates as may be reasonably selected by the Administrative Agent or, in the event no such service is selected, on such other basis as is reasonably satisfactory to the Administrative Agent) as in effect on the date of such incurrence or expenditure under any provision of any such Section that has an aggregate Dollar limitation provided for therein (and to the extent the respective incurrence or expenditure test regulates the aggregate amount outstanding at any time and it is expressed in terms of Dollars, all outstanding amounts originally incurred or spent in currencies other than Dollars shall be converted into Dollars on the basis of the exchange rates (as shown on the Reuters World Currency Page for such currency or, if the same does not provide such exchange rate, by reference to such other publicly available
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service for displaying exchange rates as may be reasonably selected by the Administrative Agent or, in the event no such service is selected, on such other basis as is reasonably satisfactory to the Administrative Agent) as in effect on the date of any new incurrence or expenditures made under any provision of any such Section that regulates the Dollar amount outstanding at any time). Notwithstanding the foregoing, all financial statements delivered hereunder shall be prepared, and all financial covenants contained herein shall be calculated, without giving effect to any election under the Statement of Financial Accounting Standards No. 159 (or any similar accounting principle) permitting a Person to value its financial liabilities or Indebtedness at the fair value thereof. Notwithstanding anything to the contrary in this Agreement or any other Loan Document, for purposes of calculations made pursuant to the terms of this Agreement or any other Loan Document, U.S. GAAP will be deemed to treat leases that would have been classified as operating leases in accordance with generally accepted accounting principles in the United States as in effect on December 31, 2015 in a manner consistent with the treatment of such leases under generally accepted accounting principles in the United States as in effect on December 31, 2015, notwithstanding any modifications or interpretive changes thereto that may occur thereafter.

SECTION 1.4 Rounding

Any financial ratios required to be maintained by the Borrower pursuant to this Agreement shall be calculated by dividing the appropriate component by the other component, carrying the result to one place more than the number of places by which such ratio or percentage is expressed herein and rounding the result up or down to the nearest number (with a rounding-up if there is no nearest number).

SECTION 1.5 References to Agreement and Laws

Unless otherwise expressly provided herein, (a) references to formation documents, governing documents, agreements (including the Loan Documents) and other contractual instruments shall be deemed to include all subsequent amendments, restatements, extensions, supplements and other modifications thereto, but only to the extent that such amendments, restatements, extensions, supplements and other modifications are not prohibited by any Loan Document; and (b) references to any Applicable Law shall include all statutory and regulatory provisions consolidating, amending, replacing, supplementing or interpreting such Applicable Law.

SECTION 1.6 Times of Day

Unless otherwise specified, all references herein to times of day shall be references to Eastern time (daylight or standard, as applicable).

ARTICLE II

[RESERVED]

ARTICLE III

TERM LOAN FACILITY

SECTION 3.1 The Term Loan. Subject to the terms and conditions of this Agreement, and in reliance upon the representations and warranties set forth herein, each Lender severally agrees to make a portion of the Term Loan to the Borrower in Dollars on the Term Loan Funding Date in a single drawing in an aggregate principal amount not to exceed such Lender's Term Loan Commitment; provided, however, that the aggregate amount of the Term Loan made on the Term Loan Funding Date shall not exceed \$300,000,000. Upon the making of a portion of the Term Loan by a Lender, its Term Loan Commitment shall automatically be terminated in its entirety (i.e., reduced to zero). In addition, any then existing Term Loan Commitment shall expire and terminate (i.e., be reduced to zero) upon the close of business on April 27, 2018. Each Lender's portion of the Term Loan shall be in a principal amount equal to its Term

Loan Percentage of the aggregate Term Loan made on the Term Loan Funding Date. The Borrower may not reborrow any portion of the Term Loan which is repaid.

SECTION 3.2 Procedure for Advance of the Term Loan. The Borrower shall give the Administrative Agent an irrevocable prior written notice substantially in the form of Exhibit B (a “Notice of Borrowing”) prior to 1:00 p.m. on the Term Loan Funding Date requesting that the Lenders make the Term Loan on such date (provided that the Borrower shall give such irrevocable Notice of Borrowing no later than three (3) Business Days prior to the Term Loan Funding Date if the Borrower requests that the Term Loan be a LIBOR Rate Loan), specifying (A) the date of such borrowing, which shall be a Business Day, (B) the amount of such borrowing (which shall not exceed the amount of the Term Loan Commitment, as then in effect), (C) whether the Term Loan is to be a LIBOR Rate Loan or Base Rate Loan, and (D) if it is to be a LIBOR Rate Loan, the duration of the first Interest Period applicable thereto. A Notice of Borrowing received after the time set forth herein shall be deemed received on the next Business Day. Upon receipt of such Notice of Borrowing from the Borrower, the Administrative Agent shall promptly notify each Lender thereof. Not later than 3:00 p.m. Eastern time on the Term Loan Funding Date, each Lender will make available to the Administrative Agent for the account of the Borrower, at the Administrative Agent’s Office in immediately available funds, the amount of such Term Loan to be made by such Lender on the Term Loan Funding Date. The Borrower hereby irrevocably authorizes the Administrative Agent to disburse the proceeds of the Term Loan in immediately available funds by wire transfer to the account of the Borrower designated in the most recent notice substantially in the form attached as Exhibit C (a “Notice of Account Designation”) delivered by the Borrower to the Administrative Agent.

SECTION 3.3 Repayment of the Term Loan. If not sooner paid, the Borrower shall repay the aggregate outstanding principal balance of the Term Loan in full, together with accrued interest thereon, on the Term Loan Maturity Date.

SECTION 3.4 Optional Prepayment of the Term Loan. The Borrower may at any time and from time to time prepay the Term Loan, in whole or in part, with irrevocable prior written notice to the Administrative Agent in substantially in the form attached as Exhibit D (a “Notice of Prepayment”) given not later than 1:00 p.m. (i) on the same Business Day as prepayment of the portion of the Term Loan which is a Base Rate Loan and (ii) at least three (3) Business Days before prepayment of the portion of Term Loan which is a LIBOR Rate Loan specifying (A) the date and amount of prepayment and (B) whether the repayment is of Term Loans which are LIBOR Rate Loans, Term Loans which are Base Rate Loans, or a combination thereof, and, if of a combination thereof, the amount allocable to each. Upon receipt of such notice, the Administrative Agent shall promptly notify each Lender thereof. If any such Notice of Prepayment is given, the amount specified in such notice shall be due and payable on the date set forth in such notice. Partial prepayments shall be in an aggregate amount of (i) \$3,000,000 or a whole multiple of \$1,000,000 in excess thereof with respect to Base Rate Loans or any lesser amount outstanding, (ii) \$5,000,000 or a whole multiple of \$1,000,000 in excess thereof with respect to LIBOR Rate Loans or any lesser amount outstanding. A Notice of Prepayment received after 1:00 p.m. shall be deemed received on the next Business Day. Each such prepayment shall be accompanied by any amount required to be paid pursuant to Section 4.9 hereof. Optional prepayments of the Term Loan shall be applied to the remaining principal installments (including principal payments to be made on the maturity date thereof) of the Term Loan as the Borrower may direct the Administrative Agent in writing.

SECTION 3.5 Permanent Reduction of the Term Loan Commitment. The Borrower shall have the right at any time and from time to time, upon at least two (2) Business Days prior written notice to the Administrative Agent, to permanently reduce, without premium or penalty, (i) the entire Term Loan Commitment at any time or (ii) portions of the Term Loan Commitment, from time to time, in an aggregate principal amount not less than \$10,000,000 or any whole multiple of \$5,000,000 in excess thereof. The Term Loan Commitment shall be permanently reduced in accordance with Section 3.6(b). Any reduction of the Term Loan Commitment shall be applied to the Term Loan Commitment of each Lender according to its Term Loan Percentage. All Ticking Fees accrued with respect to any portion of the Term Loan Commitment terminated pursuant to this Section 3.5 shall be paid on the effective date of such termination.

SECTION 3.6 Mandatory Prepayments of the Term Loan

- (a) Failure to Consummate the Paroc Acquisition. In the event the Borrower fails to consummate the Paroc Acquisition on or prior to the thirtieth (30th) day after the Term Loan Funding Date, the Borrower shall prepay the aggregate outstanding principal balance of the Term Loan in full, together with accrued interest thereon, on the first Business Day following such thirtieth (30th) day.
- (b) Capital Markets Issuance. In the event that (i) the Borrower or any Domestic Subsidiary issues any debt securities in a public issuance or private placement under Rule 144A (excluding any borrowings under the Revolving Credit Agreement, the 2017 Term Loan Agreement, any Asset Securitization, any Indebtedness permitted under Sections 8.4(iv), (v) or (vi) or other working capital facilities) or (ii) the Borrower issues any Borrower Common Stock in a registered offering, in each case of clause (i) or (ii) resulting in net cash proceeds to the Borrower or such Domestic Subsidiary, as applicable, in excess of \$100,000,000, then the Borrower shall, within two (2) Business Days after the receipt of such proceeds, first, prepay the aggregate outstanding principal balance of the Term Loans in an amount equal to the lesser of the outstanding principal amount thereof and the amount of such proceeds, together with accrued interest thereon, it being understood and agreed that each such prepayment shall be accompanied by an immediate, automatic, irrevocable, and permanent reduction of the Term Loan Commitment on a dollar-for-dollar basis equal to the amount of such prepayment and, second, if the Term Loan Commitment is outstanding and no Term Loans are outstanding on (or such Term Loans have been prepaid or repaid as of) the applicable date, the Term Loan Commitment shall be reduced on a dollar-for-dollar basis in an amount equal to such proceeds not otherwise applied pursuant to the immediately preceding clause “first”.

ARTICLE IV

GENERAL LOAN PROVISIONS

SECTION 4.1 Interest.

(a) Interest Rate Options. Subject to the provisions of this Section, at the election of the Borrower, Term Loans shall bear interest at (A) the Base Rate plus the Applicable Margin or (B) the LIBOR Rate plus the Applicable Margin (provided that the LIBOR Rate shall not be available until the second Business Day after the Closing Date unless the Borrower has delivered to the Administrative Agent a letter in form and substance reasonably satisfactory to the Administrative Agent indemnifying the Lenders in the manner set forth in Section 4.9 of this Agreement). The Borrower shall select the rate of interest and Interest Period, if any, applicable to any Loan at the time a Notice of Borrowing is given or at the time a Notice of Conversion/Continuation is given pursuant to Section 4.2. Any Term Loan or any portion of either as to which the Borrower has not duly specified an interest rate as provided herein shall be deemed a Base Rate Loan and any LIBOR Rate Loan or any portion thereof as to which the Borrower has not duly specified an Interest Period as provided herein shall be deemed a LIBOR Rate Loan for a one (1) month Interest Period.

(b) Interest Periods. In connection with each LIBOR Rate Loan, the Borrower, by giving notice at the times described in Section 3.2 or 4.2, as applicable, shall elect an interest period (each, an “ Interest Period ”) to be applicable to such Term Loan, which Interest Period shall be a period of one (1), two (2), three (3), or six (6) months; provided that:

(i) the Interest Period shall commence on the date of advance of or conversion to any LIBOR Rate Loan and, in the case of immediately successive Interest Periods, each successive Interest Period shall commence on the date on which the immediately preceding Interest Period expires;

(ii) if any Interest Period would otherwise expire on a day that is not a Business Day, such Interest Period shall expire on the next succeeding Business Day; provided, that if any Interest Period would otherwise expire on a day that is not a Business Day but is a day of the month after

which no further Business Day occurs in such month, such Interest Period shall expire on the immediately preceding Business Day;

(iii) any Interest Period that begins on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the calendar month at the end of such Interest Period) shall end on the last Business Day of the relevant calendar month at the end of such Interest Period;

(iv) no Interest Period shall extend beyond the Term Loan Maturity Date without payment of any amounts pursuant to Section 4.9; and

(v) there shall be no more than eight (8) Interest Periods in effect at any time.

(c) Default Rate. Subject to Section 9.2, (i) immediately upon the occurrence and during the continuance of an Event of Default under Section 9.1(a), or 9.1(e), or (ii) at the election of the Required Lenders, upon the occurrence and during the continuance of any other Event of Default:

(i) the Borrower shall no longer have the option to request LIBOR Rate Loans;

(ii) all outstanding LIBOR Rate Loans shall bear interest at a rate per annum of two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to LIBOR Rate Loans until the end of the applicable Interest Period and thereafter at a rate equal to two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to Base Rate Loans;

(iii) all outstanding Base Rate Loans shall bear interest at a rate per annum equal to two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to Base Rate Loans; and

(iv) all other Obligations arising hereunder or under any other Loan Document shall bear interest at a rate per annum equal to two percent (2%) in excess of the rate (including the Applicable Margin) applicable to such other Obligation (provided, that if no rate for such other Obligation is set forth herein or in such other Loan Document, then such Obligation shall bear interest at a rate per annum equal to two percent (2%) in excess of the rate (including the Applicable Margin) then applicable to Base Rate Loans).

(v)

Interest shall continue to accrue on the Obligations after the filing by or against the Borrower of any petition seeking any relief in bankruptcy or under any act or law pertaining to insolvency or debtor relief, whether state, federal or foreign.

(d) Interest Payment and Computation. Interest on each Base Rate Loan shall be due and payable in arrears on the last Business Day of each calendar quarter commencing on the last Business Day of the first full fiscal quarter that ends following the Term Loan Funding Date; and interest on each LIBOR Rate Loan shall be due and payable on the last day of each Interest Period applicable thereto, and if such Interest Period extends over three (3) months, at the end of each three (3) month interval during such Interest Period; provided, that accrued and unpaid interest on past due amounts (including interest on past due interest) shall be due and payable upon demand. All computations of interest for Base Rate Loans based on the Prime Rate shall be made on the basis of a year of 365 or 366 days, as the case may be, and actual days elapsed. All other computations of fees and interest provided hereunder shall be made on the basis of a 360-day year and actual days elapsed (which results in more fees or interest, as applicable, being paid than if computed on the basis of a 365/366-day year).

(e) Maximum Rate. Notwithstanding anything herein to the contrary, if at any time the interest rate applicable to any Term Loan, together with all fees, charges and other amounts which are treated as interest on such Term Loan under applicable law (collectively the "Charges"), shall exceed the maximum lawful rate (the "Maximum"),

Rate”) which may be contracted for, charged, taken, received or reserved by the Lender holding such Term Loan in accordance with Applicable Law, the rate of interest payable in respect of such Term Loan hereunder, together with all Charges payable in respect thereof, shall be limited to the Maximum Rate and, to the extent lawful, the interest and Charges that would have been payable in respect of such Term Loan but were not payable as a result of the operation of this Section shall be cumulated and the interest and Charges payable to such Lender in respect of other Term Loans or periods shall be increased (but not above the Maximum Rate therefor) until such cumulated amount, together with interest thereon at the Federal Funds Rate to the date of repayment, shall have been received by such Lender. It is the intent hereof that the Borrower not pay or contract to pay, and that neither the Administrative Agent nor any Lender receive or contract to receive, directly or indirectly in any manner whatsoever, interest in excess of that which may be paid by the Borrower under Applicable Law.

SECTION 4.2 Notice and Manner of Conversion or Continuation of Term Loans. Provided that (i) no Event of Default has occurred and is then continuing and (ii) the Administrative Agent, at the request of the Required Lenders, shall not have notified the Borrower to the contrary, the Borrower shall have the option to:

(a) convert at any time on or after the second Business Day after the Closing Date all or any portion of any outstanding Base Rate Loans in a principal amount equal to \$3,000,000 or any whole multiple of \$1,000,000 in excess thereof into one or more LIBOR Rate Loans; and

(b) upon the expiration of any Interest Period with respect to any LIBOR Rate Loans, (i) convert any part of its outstanding LIBOR Rate Loans in a principal amount equal to \$5,000,000 or a whole multiple of \$1,000,000 in excess thereof into Base Rate Loans or the entire remaining amount thereof or (ii) continue such LIBOR Rate Loans as LIBOR Rate Loans.

Whenever the Borrower desires to convert or continue Term Loans as provided above, the Borrower shall give the Administrative Agent irrevocable prior written notice in the form attached as Exhibit E (a “Notice of Conversion/Continuation”) not later than 1:00 p.m. three (3) Business Days before the day on which a proposed conversion or continuation of such Term Loan is to be effective specifying:

- (A) the Term Loans to be converted or continued, and, in the case of any LIBOR Rate Loan to be converted or continued, the last day of the Interest Period therefor;
- (B) the effective date of such conversion or continuation (which shall be a Business Day);
- (C) the principal amount of such Term Loans to be converted or continued; and
- (D) the Interest Period to be applicable to such converted or continued LIBOR Rate Loan.

The Administrative Agent shall promptly notify the affected Lenders of such Notice of Conversion/Continuation.

SECTION 4.3 Fees.

(a) Ticking Fee. Subject to Section 4.15(f), the Borrower shall pay to the Administrative Agent, for the account of each Lender, a ticking fee (the “Ticking Fee”), which shall accrue at the Applicable Margin on the daily actual amount of the Term Loan Commitment of such Lender during the period from and including the date hereof to but excluding the date on which the Term Loan Commitment terminates. Accrued Ticking Fees shall be payable in arrears on the last Business Day of each calendar quarter of each year and on the date on which the Term Loan Commitment terminate, commencing on the first such date to occur after the date hereof.

(b) Other Fees. The Borrower shall pay to the Administrative Agent for its own account fees in the amounts and at the times specified in the applicable Fee Letter with the Administrative Agent.

SECTION 4.4 Manner of Payment. Each payment by the Borrower on account of the principal of or interest on any Loan or of any fee, commission or other amounts payable to the Lenders under this Agreement (or any of them) shall be made not later than 1:00 p.m. on the date specified for payment under this Agreement to the

Administrative Agent at the Administrative Agent's Office for the account of the Lenders entitled to such payment in Dollars, in immediately available funds and shall be made without any set off, counterclaim or deduction whatsoever. Any payment received after such time but before 2:00 p.m. on such day shall be deemed a payment on such date for the purposes of Section 9.1(a), but for all other purposes shall be deemed to have been made on the next succeeding Business Day. Any payment received after 2:00 p.m. shall be deemed to have been made on the next succeeding Business Day for all purposes. Upon receipt by the Administrative Agent of each such payment, the Administrative Agent (i) shall distribute to each such Lender at its address for notices set forth herein its pro rata share of such payment in accordance with the amounts then due and payable to such Lenders (except as specified below) and (ii) shall wire advice of the amount of such credit to each Lender. Each payment to the Administrative Agent of Administrative Agent's fees or expenses shall be made for the account of the Administrative Agent and any amount payable to any Lender under Sections 4.9, 4.10, 4.12 or 11.3 shall be paid to the Administrative Agent for the account of the applicable Lender. Subject to Section 4.1(b)(ii) and (iii), if any payment under this Agreement shall be specified to be made upon a day which is not a Business Day, it shall be made on the next succeeding day which is a Business Day and such extension of time shall in such case be included in computing any interest payable along with such payment.

SECTION 4.5 Evidence of Indebtedness. The Extensions of Credit made by each Lender shall be evidenced by one or more accounts or records maintained by such Lender and by the Administrative Agent in the ordinary course of business. The accounts or records maintained by the Administrative Agent and each Lender shall be conclusive absent manifest error of the amount of the Extensions of Credit made by the Lenders to the Borrower and the interest and payments thereon. Any failure to so record or any error in doing so shall not, however, limit or otherwise affect the obligation of the Borrower hereunder to pay any amount owing with respect to the Obligations. In the event of any conflict between the accounts and records maintained by any Lender and the accounts and records of the Administrative Agent in respect of such matters, the accounts and records of the Administrative Agent shall control in the absence of manifest error. Upon the request of any Lender made through the Administrative Agent, the Borrower shall execute and deliver to such Lender (through the Administrative Agent) a Term Loan Note, which shall evidence such Lender's Term Loans, in addition to such accounts or records. Each Lender may attach schedules to its Term Loan Note and endorse thereon the date, amount and maturity of its Loans and payments with respect thereto.

SECTION 4.6 Adjustments. If any Lender shall, by exercising any right of setoff or counterclaim or otherwise, obtain payment in respect of any principal of or interest on any of its Term Loans or other obligations hereunder resulting in such Lender's receiving payment of a proportion of the aggregate amount of its Term Loans and accrued interest thereon or other such obligations (other than pursuant to Sections 4.9, 4.10, 4.12 or 11.3) greater than its pro rata share thereof as provided herein, then the Lender receiving such greater proportion shall (a) notify the Administrative Agent of such fact, and (b) purchase (for cash at face value) participations in the Term Loans and such other obligations of the other Lenders, or make such other adjustments as shall be equitable, so that the benefit of all such payments shall be shared by the Lenders ratably in accordance with the aggregate amount of principal of and accrued interest on their respective Term Loans and other amounts owing them; provided that

(i) if any such participations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations shall be rescinded and the purchase price restored to the extent of such recovery, without interest, and

(ii) the provisions of this paragraph shall not be construed to apply to (A) any payment made by the Borrower pursuant to and in accordance with the express terms of this Agreement or (B) any payment obtained by a Lender as consideration for the assignment of or sale of a participation in any of its Term Loans to any assignee or participant, other than to the Borrower or any Subsidiary or Affiliate thereof (as to which the provisions of this paragraph shall apply).

Each Credit Party consents to the foregoing and agrees, to the extent it may effectively do so under Applicable Law, that any Lender acquiring a participation pursuant to the foregoing arrangements may exercise against each Credit

Party rights of setoff and counterclaim with respect to such participation as fully as if such Lender were a direct creditor of each Credit Party in the amount of such participation.

SECTION 4.7 Obligations of Lenders.

(a) Funding by Lenders; Presumption by Administrative Agent. Unless the Administrative Agent shall have received notice from a Lender prior to the proposed date of any borrowing that such Lender will not make available to the Administrative Agent such Lender's share of such borrowing, the Administrative Agent may assume that such Lender has made such share in Dollars available on such date in accordance with Section 3.2 and may, in reliance upon such assumption, make available to the Borrower a corresponding amount in Dollars. In such event, if a Lender has not in fact made its share of the applicable borrowing available to the Administrative Agent in Dollars, then the applicable Lender and the Borrower severally agree to pay to the Administrative Agent forthwith on demand such corresponding amount with interest thereon, for each day from and including the date such amount is made available to the Borrower to but excluding the date of payment to the Administrative Agent, at;

- (i) in the case of a payment to be made by such Lender, the greater of (1) the daily average Federal Funds Rate and (2) a rate determined by the Administrative Agent in accordance with banking industry rules on interbank compensation; and
- (ii) in the case of a payment to be made by the Borrower, the interest rate otherwise applicable to such Term Loan.

If the Borrower and such Lender shall pay such interest to the Administrative Agent for the same or an overlapping period, the Administrative Agent shall promptly remit to the Borrower the amount of such interest paid by the Borrower for such period. If such Lender pays its share of the applicable borrowing to the Administrative Agent, then the amount so paid shall constitute such Lender's Loan included in such borrowing. Any payment by the Borrower shall be without prejudice to any claim the Borrower may have against a Lender that shall have failed to make such payment to the Administrative Agent.

(b) Nature of Obligations of Lenders Regarding Extensions of Credit. The obligations of the Lenders under this Agreement to make the Term Loans are several and are not joint or joint and several. The failure of any Lender to make available its Term Loan Percentage of any Term Loan requested by the Borrower shall not relieve it or any other Lender of its obligation, if any, hereunder to make its Term Loan Percentage of such Term Loan available on the borrowing date, but no Lender shall be responsible for the failure of any other Lender to make its Term Loan Percentage of such Term Loan available on the borrowing date.

SECTION 4.8 Changed Circumstances.

- (a) Circumstances Affecting LIBOR Rate Availability.

(i) If prior to the commencement of any Interest Period for a LIBOR Rate Loan: (A) the Administrative Agent determines (which determination shall be conclusive and binding absent manifest error) that adequate and reasonable means do not exist for ascertaining LIBOR or the LIBOR Rate, as applicable (including, without limitation, because the LIBOR Screen Rate is not available or published on a current basis), for such Interest Period; or (B) the Administrative Agent is advised by the Required Lenders that LIBOR or the LIBOR Rate, as applicable, for such Interest Period will not adequately and fairly reflect the cost to such Lenders of making or maintaining their Term Loans included in such LIBOR Rate Loan for such Interest Period, then the Administrative Agent shall give notice thereof to the Borrower and the Lenders by telephone or telecopy as promptly as practicable thereafter and, until the Administrative Agent notifies the Borrower and the Lenders that the circumstances giving rise to such notice no longer exist, (1) any Notice of Conversion/Continuation that requests the conversion of any Term Loan to, or continuation of any Term Loan as, a LIBOR Rate Loan shall be ineffective and any such Term Loan shall be converted to a Base Rate Loan on the last day

of the then current Interest Period applicable thereto and (2) if any Notice of Borrowing requests a LIBOR Rate Loan, such Term Loan shall be made as Base Rate Loan.

(ii) Notwithstanding the foregoing, if at any time the Administrative Agent determines (which determination shall be conclusive absent manifest error) that (A) the circumstances set forth in Section 4.8(a)(i) have arisen and such circumstances are unlikely to be temporary or (B) the circumstances set forth in Section 4.8(a)(i) have not arisen but the supervisor for the administrator of the LIBOR Screen Rate or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which the LIBOR Screen Rate shall no longer be used for determining interest rates for loans, then the Administrative Agent and the Borrower shall endeavor to establish an alternate rate of interest to the LIBOR that gives due consideration to the then prevailing market convention for determining a rate of interest for syndicated loans in the United States at such time, and shall enter into an amendment to this Agreement to reflect such alternate rate of interest and such other related changes to this Agreement as may be applicable. Notwithstanding anything to the contrary in Section 11.2, such amendment shall become effective without any further action or consent of any other party to this Agreement so long as the Administrative Agent shall not have received, within five (5) Business Days of the date notice of such alternate rate of interest is provided to the Lenders, a written notice from the Required Lenders stating that such Required Lenders object to such amendment. Until an alternate rate of interest shall be determined in accordance with this Section 4.8(a)(ii) (but, in the case of the circumstances described in clause (B) of the first sentence of this Section 4.8(a)(ii), only to the extent the LIBOR Screen Rate for such Interest Period is not available or published at such time on a current basis), (1) any Notice of Conversion/Continuation that requests the conversion of any Term Loan to, or continuation of any Loan as, a LIBOR Rate Loan shall be ineffective and (2) if any Notice of Borrowing requests a LIBOR Rate Loan, such Term Loan shall be made as Base Rate Loan.

(b) Laws Affecting LIBOR Rate Availability. If, after the date hereof, the introduction of, or any change in, any Applicable Law or any change in the interpretation or administration thereof by any Governmental Authority, central bank or comparable agency charged with the interpretation or administration thereof, or compliance by any of the Lenders (or any of their respective Lending Offices) with any request or directive (whether or not having the force of law) of any such Governmental Authority, central bank or comparable agency, shall make it unlawful or impossible for any of the Lenders (or any of their respective Lending Offices) to honor its obligations to make or maintain any LIBOR Rate Loan, such Lender shall promptly give notice thereof to the Administrative Agent and the Administrative Agent shall promptly give notice to the Borrower and the other Lenders. Thereafter, until the Administrative Agent notifies the Borrower that such circumstances no longer exist, (i) the obligations of the Lenders to make LIBOR Rate Loans and the right of the Borrower to convert any Term Loan or continue any Term Loan as a LIBOR Rate Loan shall be suspended and thereafter the Borrower may select only Base Rate Loans and (ii) if any of the Lenders may not lawfully continue to maintain a LIBOR Rate Loan to the end of the then current Interest Period applicable thereto, the applicable Loan shall immediately be converted to a Base Rate Loan for the remainder of such Interest Period; provided that if the Borrower elects to make such conversion, the Borrower shall pay to the Administrative Agent and the Lenders any and all costs, fees and other expenses incurred by the Administrative Agent and the Lenders in effecting such conversion.

SECTION 4.9 Indemnity. The Borrower hereby indemnifies each of the Lenders against any loss or expense (including, without limitation, any foreign exchange costs but, excluding any loss of anticipated profit) which may arise or be attributable to each Lender's obtaining, liquidating or employing deposits or other funds acquired to effect, fund or maintain any Term Loan (a) as a consequence of any failure by the Borrower to make any payment when due of any amount due hereunder in connection with a LIBOR Rate Loan, (b) due to any failure of the Borrower to borrow, continue or convert on a date specified therefor in a Notice of Borrowing or Notice of Conversion/Continuation or (c) due to any payment, prepayment or conversion of any LIBOR Rate Loan on a date other than the last day of the Interest Period therefor. The amount of such loss or expense shall be determined, in the applicable Lender's sole discretion, based upon the assumption that such Lender funded its Term Loan in the applicable interbank market and using any reasonable attribution or averaging methods which such Lender deems appropriate and practical. A certificate of such Lender setting forth the basis for determining such amount or amounts necessary to compensate

such Lender shall be forwarded to the Borrower through the Administrative Agent and shall be conclusively presumed to be correct save for manifest error.

SECTION 4.10 Increased Costs.

(a) Increased Costs Generally. If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or advances, loans or other credit extended or participated in by, any Lender (except any reserve requirement reflected in the LIBOR Rate);

(ii) subject any Lender to any Taxes (other than (A) Indemnified Taxes addressed in Section 4.12 and (B) Excluded Taxes) on its loans, loan principal, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto; or

(iii) impose on any Lender or the London interbank or other applicable market any other condition, cost or expense affecting this Agreement or LIBOR Rate Loans made by such Lender or participation therein;

and the result of any of the foregoing shall be to increase the cost to such Lender of making, converting into or maintaining any LIBOR Rate Loan (or of maintaining its obligation to make any such Loan), or to reduce the amount of any sum received or receivable by such Lender hereunder (whether of principal, interest or any other amount) then, upon written request of such Lender, the Borrower shall promptly pay to any such Lender such additional amount or amounts as will compensate such Lender for such additional costs incurred or reduction suffered, as reasonably determined by such Lender (which determination shall be made in good faith (and not on an arbitrary or capricious basis) and generally consistent with similarly situated customers of such Lender under agreements having provisions similar to this Section 4.10(a), after consideration of such factors as such Lender then reasonably determines to be relevant).

(b) Capital Requirements. If any Lender determines that any Change in Law affecting such Lender or any lending office of such Lender or such Lender's holding company, if any, regarding capital or liquidity requirements has or would have the effect of reducing the rate of return on such Lender's capital or on the capital of such Lender's holding company, if any, as a consequence of this Agreement, the Term Loan Commitment of such Lender or the Term Loans made by such Lender to a level below that which such Lender or such Lender's holding company could have achieved but for such Change in Law (taking into consideration such Lender's policies and the policies of such Lender's holding company with respect to capital adequacy or liquidity), then from time to time upon written request of such Lender the Borrower shall promptly pay to such Lender such additional amount or amounts as will compensate such Lender or such Lender's holding company for any such reduction suffered, as reasonably determined by such Lender (which determination shall be made in good faith (and not on an arbitrary or capricious basis) and generally consistent with similarly situated customers of such Lender under agreements having provisions similar to this Section 4.10(b), after consideration of such factors as such Lender then reasonably determines to be relevant).

(c) Certificates for Reimbursement. A certificate of a Lender setting forth the amount or amounts necessary to compensate such Lender or its holding company, as the case may be, as specified in paragraph (a) or (b) of this Section (including, to the extent such information is not deemed by such Lender to be confidential or proprietary to such Lender, reasonable details on the calculations performed by such Lender or its holding company in determining such amount or amounts) and delivered to the Borrower shall be conclusive absent manifest error. The Borrower shall pay such Lender the amount shown as due on any such certificate within ten (10) days after receipt thereof.

(d) [Reserved].

(e) Delay in Requests. Failure or delay on the part of any Lender to demand compensation pursuant to this Section shall not constitute a waiver of such Lender's right to demand such compensation; provided that the Borrower shall not be required to compensate a Lender pursuant to this Section for any increased costs incurred or reductions suffered more than one hundred eighty (180) days prior to the date that such Lender notifies the Borrower of the Change in Law or other events or conditions giving rise to such increased costs or reductions and of such Lender's intention to claim compensation therefor (except that if the Change in Law giving rise to such increased costs or reductions is retroactive, then the one hundred eighty day period referred to above shall be extended to include the period of retroactive effect thereof).

SECTION 4.11 Regulatory Limitation; Further Assurances. In the event that for any reason, the obligation of any of the Lenders to make a Term Loan (in each case taking into account the amount of the Obligations and all other indebtedness required to be aggregated under 12 U.S.C.A. §84, as amended, the regulations promulgated thereunder and any other Applicable Law) is determined by such Lender to exceed its then applicable legal lending limit under 12 U.S.C.A. §84, as amended, and the regulations promulgated thereunder, or any other Applicable Law, the amount of any Extension of Credit such Lender shall be obligated to make hereunder shall immediately be reduced to the maximum amount which such Lender may legally advance (as determined by such Lender), the obligation of each of the remaining Lenders hereunder shall be proportionately reduced, based on their applicable Term Loan Percentages and, to the extent necessary under such laws and regulations (as determined by each of the Lenders, with respect to the applicability of such laws and regulations to itself), and the Borrower shall reduce, or cause to be reduced, complying to the extent practicable with the remaining provisions hereof, the Obligations outstanding hereunder by an amount sufficient to comply with such maximum amounts.

SECTION 4.12 Taxes.

(a) Payments Free of Taxes. Any and all payments by or on account of any obligation of the Credit Parties hereunder or under any other Loan Document shall be made free and clear of and without reduction or withholding for any Indemnified Taxes or Other Taxes; provided that if any Credit Party or the Administrative Agent shall be required by Applicable Law to deduct any Indemnified Taxes (including any Other Taxes) from such payments, then (i) the sum payable by the applicable Credit Party shall be increased as necessary so that after making all required deductions (including deductions applicable to additional sums payable under this Section) the Administrative Agent or the applicable Lender, as the case may be, receives an amount equal to the sum it would have received had no such deductions been made, (ii) the Borrower shall make such deductions and (iii) the Borrower shall timely pay the full amount deducted to the relevant Governmental Authority in accordance with Applicable Law.

(b) Payment of Other Taxes by the Borrower. Without limiting the provisions of paragraph (a) above, the Borrower shall timely pay any Other Taxes to the relevant Governmental Authority in accordance with Applicable Law.

(c) Indemnification by the Borrower. The Borrower shall indemnify the Administrative Agent and each Lender, within ten (10) days after demand therefor, for the full amount of any Indemnified Taxes or Other Taxes (including Indemnified Taxes or Other Taxes imposed or asserted on or attributable to amounts payable under this Section) that are paid by (or required to be withheld or deducted on payments to) the Administrative Agent or such Lender, as the case may be, and any penalties, interest and reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes or Other Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to the Borrower by a Lender (with a copy to the Administrative Agent), or by the Administrative Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(d) Evidence of Payments. As soon as practicable after any payment of Taxes by the Borrower to a Governmental Authority pursuant to this Section 4.12, the Borrower shall deliver to the Administrative Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such

payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to the Administrative Agent.

(e) Status of Lenders. (i) Any Foreign Lender that is entitled to an exemption from or reduction of withholding tax with respect to payments hereunder or under any other Loan Document shall deliver to the Borrower (with a copy to the Administrative Agent), at the time or times reasonably requested by the Borrower or the Administrative Agent, such properly completed and executed documentation reasonably requested by the Borrower or the Administrative Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Borrower or the Administrative Agent, shall deliver such other documentation prescribed by Applicable Law or reasonably requested by the Borrower or the Administrative Agent as will enable the Borrower or the Administrative Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in Sections 4.12(e)(ii)(A), (ii)(B) and (ii)(D) below) shall not be required if in the Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender:

(ii) Without limiting the generality of the foregoing, in the event that the Borrower is a "United States person" (within the meaning of Section 7701(a)(30) of the Code),

(A) any Lender that is a U.S. Person shall deliver to the Borrower and the Administrative Agent on or prior to the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed originals of IRS Form W-9 certifying that such Lender is exempt from U.S. federal backup withholding tax;

(B) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), whichever of the following is applicable:

(i) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, duly completed copies of IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable, establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(ii) duly completed copies of IRS Form W-8ECI;

(iii) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit J-1 to the effect that such Foreign Lender is not (A) a "bank" within the meaning of Section 881(c)(3)(A) of the Code, (B) a "10 percent shareholder" of the Borrower within the meaning of Section 881(c)(3)(B) of the Code, or (C) a "controlled foreign corporation" described in Section 881(c)(3)(C) of the Code (a "U.S. Tax Compliance Certificate") and (y) duly completed copies of IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable; or

(iv) to the extent a Foreign Lender is not the beneficial owner, executed originals of IRS Form W-8IMY, accompanied by IRS Form

W-8ECI, IRS Form W-8BEN, IRS Form W-8BEN-E, a U.S. Tax Compliance Certificate substantially in the form of Exhibit J-2 or Exhibit J-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit J-4 on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Administrative Agent (in such number of copies as shall be requested by the recipient) on or prior to the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Administrative Agent), executed originals of any other form prescribed by Applicable Law as a basis for claiming exemption from or a reduction in United States federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by Applicable Law to permit the Borrower or the Administrative Agent to determine the withholding or deduction required to be made; and

(D) if a payment made to a Lender under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Borrower and the Administrative Agent at the time or times prescribed by law and at such time or times reasonably requested by the Borrower or the Administrative Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower or the Administrative Agent as may be necessary for the Borrower and the Administrative Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Borrower and the Administrative Agent in writing of its legal inability to do so.

(f) Treatment of Certain Refunds. If the Administrative Agent or a Lender determines, in its sole discretion, that it has received a refund of any Taxes or Other Taxes as to which it has been indemnified by the Borrower or with respect to which the Borrower has paid additional amounts pursuant to this Section, it shall pay to the Borrower an amount equal to such refund within thirty (30) days of such determination (but only to the extent of indemnity payments made, or additional amounts paid, by the Borrower under this Section with respect to the Taxes or Other Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of the Administrative Agent or such Lender, as the case may be, and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund); provided that the Borrower, upon the request of the Administrative Agent or such Lender, agrees to repay the amount paid over to the Borrower (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) to the Administrative Agent or such Lender in the event the Administrative Agent or such Lender is required to repay such refund to such Governmental Authority. This paragraph shall not be construed to require the Administrative Agent or any Lender to make available its tax returns (or any other information relating to its taxes which it deems confidential) to the Borrower or any other Person.

(g) Survival. Without prejudice to the survival of any other agreement of the Credit Parties hereunder, the agreements and obligations of the Credit Parties contained in this Section shall survive the payment in full of the Obligations and the termination of the Term Loan Commitment.

(h) Each Lender shall severally indemnify the Administrative Agent within ten (10) days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that any Credit Party has not already indemnified the Administrative Agent for such Indemnified Taxes and without limiting the obligation of the Credit Parties to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 11.9(g) relating to the maintenance of a Participant Register and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Administrative Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Administrative Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Administrative Agent to set off and apply any and all amounts at any time owing to such Lender under any Loan Document or otherwise payable by the Administrative Agent to the Lender from any other source against any amount due to the Administrative Agent under this paragraph (h). The agreements in this paragraph (h) shall survive the resignation and/or replacement of the Administrative Agent.

SECTION 4.13 Mitigation Obligations; Replacement of Lenders.

(a) Designation of a Different Lending Office. If any Lender delivers notice to the Administrative Agent pursuant to Section 4.8(b), or requests compensation under Section 4.10, or requires the Borrower to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 4.12, then, upon the request of the Borrower, such Lender shall use reasonable efforts to designate a different lending office for funding or booking its Term Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or affiliates, if, in the judgment of such Lender, such designation or assignment (i) would make it lawful or possible, as the case may be, to honor its obligations to make or maintain LIBOR Rate Loans hereunder or would eliminate or reduce amounts payable pursuant to Section 4.10 or Section 4.12, as the case may be, in the future and (ii) would not subject such Lender to any unreimbursed cost or expense and would not otherwise be disadvantageous to such Lender. The Borrower hereby agrees to pay all reasonable costs and expenses incurred by any Lender in connection with any such designation or assignment.

(b) Replacement of Lenders. If any Lender becomes unable to make or maintain LIBOR Rate Loans under Section 4.8(b), requests compensation under Section 4.10, or if the Borrower is required to pay any additional amount to any Lender or any Governmental Authority for the account of any Lender pursuant to Section 4.12, or if any Lender is a Defaulting Lender hereunder or becomes a Non-Consenting Lender, or if any Lender is unable, on the date required by Section 11.21(a) or (b) to make any declaration or representation required therein, then the Borrower may, at its sole expense and effort, upon notice to such Lender and the Administrative Agent, require such Lender to assign and delegate, without recourse (in accordance with and subject to the restrictions contained in, and consents required by, Section 11.9), all of its interests, rights and obligations under this Agreement and the related Loan Documents to an assignee that shall assume such obligations (which assignee may be another Lender, if a Lender accepts such assignment); provided that:

(i) the Borrower shall have paid to the Administrative Agent the assignment fee specified in Section 11.9;

(ii) such Lender shall have received payment of an amount equal to the outstanding principal of its Term Loans, accrued interest thereon, accrued fees and all other amounts payable to it hereunder and under the other Loan Documents (including any amounts under Section 4.9) from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Borrower (in the case of all other amounts);

(iii) in the case of any such assignment resulting from a claim for compensation under Section 4.10 or payments required to be made pursuant to Section 4.12, such assignment will result in a reduction in such compensation or payments thereafter;

(iv) such assignment does not conflict with Applicable Law; and

(v) in the case of any such assignment with respect to a Non-Consenting Lender pursuant to Section 4.13(b), (A) such assignment shall be permitted hereunder only if no Event of Default has occurred and is continuing at the time of such proposed assignment and (B) each assignee shall consent, at the time of such assignment, to each matter in respect of which such assignor Lender was a Non-Consenting Lender.

A Lender shall not be required to make any such assignment or delegation if, prior thereto, as a result of a waiver by such Lender or otherwise, the circumstances entitling the Borrower to require such assignment and delegation cease to apply.

SECTION 4.14 [Reserved].

SECTION 4.15 Defaulting Lenders

. Notwithstanding anything to the contrary contained in this Agreement, if any Lender becomes a Defaulting Lender, then, until such time as that Lender is no longer a Defaulting Lender, to the extent permitted by Applicable Law:

(a) Waivers and Amendments. That Defaulting Lender's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in Section 11.2.

(b) [Reserved].

(c) [Reserved].

(d) [Reserved].

(e) [Reserved].

(f) Certain Fees. For any period during which that Lender is a Defaulting Lender, that Defaulting Lender shall not be entitled to receive any Ticking Fee pursuant to Section 4.3 for any period during which that Lender is a Defaulting Lender (and the Borrower shall not be required to pay any such fee that otherwise would have been required to have been paid to such Defaulting Lender).

(g) Defaulting Lender Cure. If the Borrower and the Administrative Agent agree in writing in their sole discretion that a Defaulting Lender should no longer be deemed to be a Defaulting Lender, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein (which may include arrangements with respect to any cash collateral), that Lender will, to the extent applicable, purchase at par that portion of outstanding Term Loans of the other Lenders or take such other actions as the Administrative Agent may determine to be necessary to cause the Term Loans to be held on a pro rata basis by the Lenders in accordance with their Term Loan Percentages, whereupon that Lender will cease to be a Defaulting Lender; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Borrower while that Lender was a Defaulting Lender; and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Lender to Lender will constitute a waiver or release of any claim of any party hereunder arising from that Lender's having been a Defaulting Lender.

ARTICLE V

CONDITIONS OF EFFECTIVENESS AND BORROWING

SECTION 5.1 Conditions to Effectiveness. The effectiveness of this Agreement is subject to the satisfaction of each of the following conditions:

(a) Executed Loan Documents. This Agreement and the Subsidiary Guaranty Agreement, together with any other applicable Loan Documents, shall have been duly authorized, executed and delivered to the Administrative Agent by the parties thereto and shall be in full force and effect.

(b) Closing Certificates; Etc.. The Administrative Agent shall have received each of the following in form and substance reasonably satisfactory to the Administrative Agent:

(i) Officer's Certificate. A certificate from a Responsible Officer of the Borrower to the effect that all representations and warranties of such Person contained in this Agreement and the other Loan Documents are true and correct in all material respects except for any representation and warranty made as of an earlier date, which representation and warranty shall remain true and correct in all material respects as of such earlier date; that none of the Credit Parties is in violation of any of the covenants contained in this Agreement and the other Loan Documents applicable to it.

(ii) Certificate of Secretary of each Credit Party. A certificate of the secretary, assistant secretary, director, officer or other authorized person, as the case may be, of each Credit Party certifying as to the incumbency and genuineness of the signature of each officer of such Credit Party or other authorized person executing Loan Documents to which it is a party and certifying that attached thereto is a true, correct and complete copy of (A) the articles or certificate of incorporation or formation of such Credit Party and all amendments thereto, certified as of a recent date by the appropriate Governmental Authority in its jurisdiction of incorporation or formation, (B) the bylaws or other governing document of such Credit Party as in effect on the Closing Date, and (C) resolutions duly adopted by the board of directors (or other governing body) of such Credit Party authorizing the transactions contemplated hereunder and the execution, delivery and performance of this Agreement and the other Loan Documents to which it is a party.

(iii) Certificates of Good Standing. Certificates as of a recent date of the good standing (or the equivalent thereof, if any) of each Credit Party under the laws of its jurisdiction of organization and, to the extent requested by the Administrative Agent, each other jurisdiction where such Credit Party is qualified to do business.

(iv) Opinions of Counsel. Favorable opinions of external and internal United States counsel to the Borrower addressed to the Administrative Agent and the Lenders with respect to the Credit Parties, the Loan Documents and such other matters as the Administrative Agent shall request and which opinion shall permit reliance by successors and permitted assigns of each of the Administrative Agent and the Lenders.

(c) Governmental and Third Party Approvals. The Credit Parties shall have received all material governmental, shareholder and third party consents and approvals necessary (or any other material consents as determined in the reasonable discretion of the Administrative Agent) in connection with the transactions contemplated by this Agreement and the other Loan Documents and the other transactions contemplated hereby and no action shall have been taken by any Person that could reasonably be expected to restrain, prevent or impose any material adverse conditions on any of the Credit Parties or such other transactions or that could seek or threaten any of the foregoing, and no law or regulation shall be applicable which in the reasonable judgment of the Administrative Agent could reasonably be expected to have such effect.

(d) Financial Matters.

(i) Financial Statements. The Joint Lead Arrangers shall have received (A) the audited Consolidated balance sheet of the Borrower and its Subsidiaries for the three fiscal years most recently ended for which financial statements are available and the related audited statements of income and retained earnings and cash flows for such Fiscal Years and (B) unaudited Consolidated balance sheet of the Borrower and its Subsidiaries for each quarterly period ended after June 30, 2017 for which financial statements are publicly available and related unaudited interim statements of income and retained earnings.

(ii) Payment at Closing. The Borrower shall have paid (A) to the Administrative Agent and the Joint Lead Arrangers all fees and other amounts due and payable on or prior to the Closing Date and (B) all fees, charges and disbursements of counsel to the Administrative Agent to the extent accrued and unpaid prior to or on the Closing Date and for which a detailed invoice has been delivered to the Borrower.

(e) Miscellaneous.

(i) Patriot Act. The Borrower and each of the Subsidiary Guarantors shall have provided to the Administrative Agent and the Lenders the documentation and other information requested by the Administrative Agent in order to comply with requirements of the Act.

(ii) Other Documents. All opinions, certificates and other instruments and all proceedings in connection with the transactions contemplated by this Agreement shall be satisfactory in form and substance to the Administrative Agent. The Administrative Agent shall have received copies of all other documents, certificates and instruments reasonably requested thereby, with respect to the transactions contemplated by this Agreement.

SECTION 5.2 Conditions to Extension of the Term Loan. The obligations of the Lenders to make the Term Loan on the Term Loan Funding Date are subject to the satisfaction of the following conditions precedent on the relevant borrowing, issuance or extension date:

(a) Continuation of Representations and Warranties. The representations and warranties contained in Article VI shall be true and correct in all material respects on and as of such borrowing, issuance or extension date with the same effect as if made on and as of such date, except for any representation and warranty made as of an earlier date, which representation and warranty shall remain true and correct in all material respects as of such earlier date; provided, that (x) if a representation and warranty is qualified as to materiality, the materiality qualifier set forth above shall be disregarded with respect to such representation and warranty for purposes of this condition and (y) this clause (a) shall not apply to the representations and warranties contained in Section 6.5(e) with respect to any Extension of Credit occurring after the Closing Date.

(b) No Existing Default. No Default or Event of Default shall have occurred and be continuing on the borrowing date with respect to the Term Loans or after giving effect to the Term Loans to be made on such date.

(c) Notices. The Administrative Agent shall have received a Notice of Borrowing accordance with Section 3.2.

(d) Officer's Certificate. The Administrative Agent (or its counsel) shall have received a certificate of a Responsible Officer of the Borrower dated the Term Loan Funding Date, certifying that (A) the representations and warranties contained in Article VI (other than Section 6.5(e)) are true and correct in all material respects on and as of the Term Loan Funding Date (both before and after giving effect to the making of the Term Loan) with the same effect as if made on and as of such date, except for any representation and

warranty made as of an earlier date, which representation and warranty is true and correct in all material respects as of such earlier date; provided, that if a representation and warranty is qualified as to materiality, the materiality qualifier set forth above shall be disregarded with respect to such representation and warranty for purposes of this certification and (B) no Default or Event of Default has occurred and is continuing on the Term Loan Funding Date (either before or after giving effect to the making of the Term Loan).

(e) Solvency Certificate. The Borrower shall have delivered to the Administrative Agent a certificate, in form and substance satisfactory to the Administrative Agent, and certified as accurate by the chief financial officer (or other similar officer) of the Borrower, that the representations and warranties set forth in Section 6.5(b) are true and correct on the Term Loan Funding Date.

ARTICLE VI

REPRESENTATIONS AND WARRANTIES OF THE CREDIT PARTIES

In order to induce the Lenders to enter into this Agreement and to make the Term Loans, the Borrower makes the following representations, warranties and agreements, all of which shall survive the execution and delivery of this Agreement and the Term Loan Notes and the making of the Term Loans.

SECTION 6.1 Company Status. Each of the Borrower and each of its Subsidiaries (i) is a duly organized and validly existing Company in good standing (or the local equivalent) under the laws of the jurisdiction of its organization, (ii) has the Company power and authority to own its property and assets and to transact the business in which it is engaged and presently proposes to engage and (iii) is duly qualified and is authorized to do business and is in good standing in each jurisdiction where the ownership, leasing or operation of its property or the conduct of its business requires such qualifications; except for failures of Subsidiaries of the Borrower that are not Credit Parties under clauses (i) and (ii) above, and failures of the Borrower and its Subsidiaries under clause (iii) above, which, either individually or in the aggregate for all such failures under preceding clauses (i), (ii) and (iii), could not reasonably be expected to have a Material Adverse Effect; provided that nothing in this Section 6.1 shall prevent the dissolution, merger, sale, transfer or other disposition of any Subsidiary of the Borrower or any other transactions by the Borrower or any of its Subsidiaries permitted pursuant to Section 8.2.

SECTION 6.2 Power and Authority. Each Credit Party has the Company power and authority to execute, deliver and perform the terms and provisions of each of the Loan Documents to which it is party and has taken all necessary Company action to authorize the execution, delivery and performance by it of each of such Loan Documents. Each Credit Party has duly executed and delivered each of the Loan Documents to which it is party, and each of such Loan Documents constitutes its legal, valid and binding obligation enforceable in accordance with its terms, except to the extent that the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws generally affecting creditors' rights and by equitable principles (regardless of whether enforcement is sought in equity or at law).

SECTION 6.3 No Violation. Neither the execution, delivery or performance by any Credit Party of the Loan Documents to which it is a party, nor compliance by it with the terms and provisions thereof, (i) will contravene any provision of any law, statute, rule or regulation or any order, writ, injunction or decree of any court or Governmental Authority binding on the Borrower and its Subsidiaries, (ii) will result in any breach of any of the terms, covenants, conditions or provisions of, or constitute a default under, or result in the creation or imposition of (or the obligation to create or impose) any Lien upon any of the property or assets of any Credit Party or any of its Subsidiaries pursuant to the terms of any indenture, mortgage, deed of trust, credit agreement or loan agreement, or any other material agreement, contract or instrument, in each case to which any Credit Party or any of its Subsidiaries is a party or by which it or any its property or assets is bound or to which it may be subject (including, without limitation, the Existing Indebtedness Agreements) other than any agreement, contract or instrument terminated, discharged or replaced as of the Closing Date, or (iii) will violate any provision of the certificate or articles of incorporation, certificate of formation, limited liability company agreement or by-laws (or equivalent organizational documents), as applicable, of any Credit Party or any of its Subsidiaries.

SECTION 6.4 Approvals. No order, consent, approval, license, authorization or validation of, or filing, recording or registration with (except for those that have otherwise been obtained or made on or prior to the Closing Date), or exemption by, any Governmental Authority is required to be obtained or made by, or on behalf of, any Credit Party to authorize, or is required to be obtained or made by, or on behalf of, any Credit Party in connection with, (i) the execution, delivery and performance of any Loan Document or (ii) the legality, validity, binding effect or enforceability of any such Loan Document.

SECTION 6.5 Financial Statements; Financial Condition; Undisclosed Liabilities.

(a) The audited consolidated balance sheet of the Borrower and its Subsidiaries at December 31, 2016 and the related consolidated statements of income and cash flows and changes in shareholders' equity of the Borrower and its Subsidiaries for the fiscal year of the Borrower ended on such date and the unaudited consolidated balance sheets of the Borrower and its Subsidiaries at the end of the Quarter ended September 30, 2017 and the related consolidated statements of income and cash flows and changes in shareholders' equity of the Borrower and its Subsidiaries for the Fiscal Quarter then ended, in each case furnished to the Lenders prior to the Closing Date, present fairly in all material respects the consolidated financial position of the Borrower and its Subsidiaries at the date of said financial statements and the results for the respective periods covered thereby. All such financial statements have been prepared in accordance with U.S. GAAP consistently applied except to the extent provided in the notes to said financial statements and subject, in the case of the unaudited financial statements, to normal year-end audit adjustments (all of which are of a recurring nature and none of which, individually or in the aggregate, would be material) and the absence of footnotes.

(b) On and as of the Closing Date, and on the Term Loan Funding Date, after giving effect to the funding of Term Loans hereunder and the funding of the initial loans under the 2017 Term Loan Agreement, (i) the sum of the assets, at a fair valuation, of the Borrower (on a stand-alone basis) and of the Borrower and its Subsidiaries (taken as a whole) will exceed its or their respective debts, (ii) the Borrower (on a stand-alone basis) and the Borrower and its Subsidiaries (taken as a whole) has or have not incurred and does or do not intend to incur, and does or do not believe that it or they will incur, debts beyond its or their respective ability to pay such debts as such debts mature, and (iii) the Borrower (on a stand-alone basis) and the Borrower and its Subsidiaries (taken as a whole) will have sufficient capital with which to conduct its or their respective businesses. For purposes of this Section 6.5(b), "debt" means any liability on a claim, and "claim" means (a) right to payment, whether or not such a right is reduced to judgment, liquidated, unliquidated, fixed, contingent, matured, unmatured, disputed, undisputed, legal, equitable, secured, or unsecured or (b) right to an equitable remedy for breach of performance if such breach gives rise to a payment, whether or not such right to an equitable remedy is reduced to judgment, fixed, contingent, matured, unmatured, disputed, undisputed, secured or unsecured. The amount of contingent liabilities at any time shall be computed as the amount that, in the light of all the facts and circumstances existing at such time, represents the amount that can reasonably be expected to become an actual or matured liability.

(c) Except as fully disclosed in the financial statements delivered pursuant to Section 6.5(a), and except for the Indebtedness incurred under this Agreement, there were as of the Closing Date no liabilities or obligations with respect to the Borrower or any of its Subsidiaries of any nature whatsoever (whether absolute, accrued, contingent or otherwise and whether or not due) which, either individually or in the aggregate, could reasonably be expected to be material to the Borrower and its Subsidiaries. As of the Closing Date, the Borrower does not know of any basis for the assertion against it or any of its Subsidiaries of any liability or obligation of any nature whatsoever that is not fully disclosed in the financial statements delivered pursuant to Section 6.5(a) or referred to in the immediately preceding sentence which, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

(d) [Reserved].

(e) On and as of the Closing Date, since December 31, 2016, nothing has occurred (singly or in aggregate with all other occurrences) that has had, or could reasonably be expected to have, a Material Adverse Effect; provided that no Extension of Credit shall constitute a representation and warranty that the matters set forth in this Section 6.5(e) are true and correct.

SECTION 6.6 Litigation. There are no actions, suits, proceedings, grievances or investigations pending or, to the knowledge of the Borrower, threatened (i) with respect to this Agreement or any Loan Document or (ii) that have had, or could reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect or a material adverse effect on the Transaction.

SECTION 6.7 True and Complete Disclosure. All factual information (taken as a whole) furnished by or on behalf of the Borrower and each of its Subsidiaries in writing to the Administrative Agent or any Lender for purposes of or in connection with this Agreement or the other Loan Documents, or any transaction contemplated herein or therein, is, and all other such factual information (taken as a whole) hereafter furnished by or on behalf of the Borrower and each of its Subsidiaries in writing to the Administrative Agent or any Lender will be, true and accurate in all material respects on the date as of which such information is dated or certified and not incomplete by omitting to state any fact necessary to make such information (taken as a whole) not misleading in any material respect at such time in light of the circumstances under which such information was provided, it being understood and agreed that for purposes of this Section 6.7, such factual information shall not include any pro forma financial information.

SECTION 6.8 Use of Proceeds; Margin Regulations.

(a) All proceeds of the Term Loans will be used to finance a portion of the Paroc Acquisition and for other working capital and general corporate purposes of the Borrower and its Subsidiaries.

(b) At the time of each Extension of Credit, the value of the Margin Stock at any time owned by the Borrower and its Subsidiaries does not exceed 25% of the value of the assets of the Borrower and its Subsidiaries taken as a whole. Neither the making of any Loan nor the use of the proceeds thereof nor the occurrence of any other Extension of Credit will violate or be inconsistent with the provisions of Regulation T, U or X of the Board of Governors of the Federal Reserve System.

SECTION 6.9 Tax Returns and Payments. Each of the Borrower and each of its Subsidiaries has timely filed or caused to be timely filed with the appropriate taxing authority all material returns, statements, forms and reports for Taxes (the "Returns") required to be filed by, or with respect to the Borrower and/or any of its Subsidiaries. The Returns accurately reflect in all material respects all liability for Taxes of the Borrower and its Subsidiaries, as applicable, for the periods covered thereby. Each of the Borrower and each of its Subsidiaries has paid all federal and state income Taxes and all other material Taxes and assessments shown on such Returns to be payable by it which have become due, other than those that are being contested in good faith and adequately disclosed and fully provided for on the financial statements of the Borrower and its Subsidiaries in accordance with U.S. GAAP. On the Closing Date, there is no material action, suit, proceeding, investigation, audit or claim now pending or, to the best knowledge of the Borrower or any of its Subsidiaries, threatened by any authority regarding any Taxes relating to the Borrower or any of its Subsidiaries. As of the Closing Date, except as set forth on Schedule 6.9, neither the Borrower nor any of its Subsidiaries has entered into an agreement or waiver or been requested to enter into an agreement or waiver extending any statute of limitations relating to the payment or collection of Taxes of the Borrower or any of its Subsidiaries, or is aware of any circumstances that would cause the taxable years or other taxable periods of the Borrower or any of its Subsidiaries not to be subject to the normally applicable statute of limitations. Neither the Borrower nor any of its Subsidiaries has incurred, nor will any of them incur, any material tax liability in connection with the Transaction or any other transactions contemplated hereby (it being understood that the representation contained in this sentence does not cover any future tax liabilities of the Borrower or any of its Subsidiaries arising as a result of the operation of their businesses in the ordinary course of business).

SECTION 6.10 Compliance with ERISA; Non-U.S. Plans.

(a) The Borrower and each ERISA Affiliate have operated and administered each Plan in compliance with all applicable laws except for such instances of noncompliance as have not resulted in and could not reasonably be expected to result in a Material Adverse Effect. Neither the Borrower nor any ERISA Affiliate has incurred any liability pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans (as defined in Section 3 of ERISA), and no event, transaction or condition has occurred or exists that could reasonably be expected to result in the incurrence of any such liability by the Borrower or any ERISA Affiliate, or in the imposition of any Lien on any of the rights, properties or assets of the Borrower or any ERISA Affiliate, in either case pursuant to Title I or IV of ERISA or to such penalty or excise tax provisions or to section 412 of the Code, other than, in any case, such liabilities or Liens as could not reasonably be expected to result, individually or in the aggregate, in the occurrence of a Material Adverse Effect.

(b) Neither the Borrower nor any ERISA Affiliate has incurred (i) withdrawal liabilities (or are subject to contingent withdrawal liabilities) under section 4201 or 4204 of ERISA in respect of Multiemployer Plans that could reasonably be expected to result, either individually or in the aggregate, in the occurrence of a Material Adverse Effect or (ii) any obligation in connection with the termination or withdrawal from any Non-U.S. Plan that could reasonably be expected to result, either individually or in the aggregate, in the occurrence of a Material Adverse Effect.

(c) The expected postretirement benefit obligation (determined as of the last day of the Borrower's most recently ended fiscal year in accordance with Financial Accounting Standards Board Statement No. 106, without regard to liabilities attributable to continuation coverage mandated by section 4980B of the Code) of the Borrower could not reasonably be expected to result in the occurrence of a Material Adverse Effect.

(d) All Non-U.S. Plans have been registered, established, operated, administered and maintained in compliance with all laws, regulations and orders applicable thereto, except where failure so to comply could not be reasonably expected to have a Material Adverse Effect. All premiums, contributions and any other amounts required by applicable Non-U.S. Plan documents or applicable laws to be paid or accrued by the Borrower and each of its Subsidiaries have been paid or accrued as required and all obligations of the Borrower and each of its Subsidiaries under each applicable Non-U.S. Plan Document have been performed by the Borrower and each of its Subsidiaries, except where failure so to pay or accrue such amounts or to perform such obligations, as the case may be, could not be reasonably expected to have a Material Adverse Effect.

SECTION 6.11 [Reserved].

SECTION 6.12 Subsidiaries. On and as of the Closing Date, the Borrower has no Subsidiaries other than those Subsidiaries listed on Schedule 6.12 (with each Subsidiary that is (x) a Subsidiary Guarantor or (y) an Immaterial Subsidiary on the Closing Date identified as such).

SECTION 6.13 Compliance with Statutes, etc.. The Borrower and each of its Subsidiaries is in compliance with all applicable statutes, regulations and orders of, and all applicable restrictions imposed by, all Governmental Authorities in respect of the conduct of its business and the ownership of its property (including, without limitation, applicable statutes, regulations, orders and restrictions relating to environmental standards and controls), except such non-compliances as could not reasonably be expected to have, either individually or in the aggregate, a Material Adverse Effect.

SECTION 6.14 Investment Company Act

. The Borrower is not an "investment company" or a company "controlled" by an "investment company," within the meaning of the Investment Company Act of 1940, as amended.

SECTION 6.15 Environmental Matters.

(a) Subject to Section 6.15(c), each of the Borrower and each of its Subsidiaries is in compliance with all applicable Environmental Laws and the requirements of any permits issued under such Environmental Laws. The Borrower and each of its Subsidiaries have obtained all of the permits and approvals required of them under Environmental Laws for the operation of their respective businesses. There are no pending or, to the knowledge of the Borrower, threatened Environmental Claims against the Borrower or any of its Subsidiaries or any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries (including any such claim arising out of the ownership, lease or operation by the Borrower or any of its Subsidiaries of any Real Property formerly owned, leased or operated by the Borrower or any of its Subsidiaries but no longer owned, leased or operated by the Borrower or any of its Subsidiaries). There are no facts, circumstances, conditions or occurrences with respect to the business or operations of the Borrower or any of its Subsidiaries, or any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries (including any Real Property formerly owned, leased or operated by the Borrower or any of its Subsidiaries but no longer owned, leased or operated by the Borrower or any of its Subsidiaries) or, to the knowledge of the Borrower, any property adjoining or adjacent to any such Real Property that could be reasonably expected (i) to form the basis of an Environmental Claim against the Borrower or any of its Subsidiaries or any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries or (ii) to cause any Real Property owned, leased or operated by the Borrower or any of its Subsidiaries to be subject to any restrictions on the ownership, lease, occupancy or transferability of such Real Property by the Borrower or any of its Subsidiaries under any applicable Environmental Law.

(b) Subject to Section 6.15(c), other than in the ordinary course of business and in compliance with all applicable Environmental Laws, Hazardous Materials have not at any time been generated, used, treated or stored on, or transported to or from, or Released on or from, any Real Property by the Borrower or any of its Subsidiaries at any time that such Real Property was or has been owned, leased or operated by the Borrower or any of its Subsidiaries.

(c) Notwithstanding anything to the contrary in this Section 6.15, the representations and warranties made in this Section 6.15 shall be untrue only if the effect of any or all conditions, violations, claims, restrictions, failures and noncompliances of the types described above could, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

SECTION 6.16 Employment and Labor Relations. On the Closing Date, there are (i) no material strikes, lockouts, stoppages or slowdowns or any other material labor disputes against the Borrower or any of its Subsidiaries pending or, to the knowledge of the Borrower or any its Subsidiaries, threatened or planned and (ii) no union representation questions with respect to the Borrower or any of its Subsidiaries.

SECTION 6.17 Intellectual Property, etc. The Borrower and each of its Subsidiaries owns, or is licensed to use, all trademarks, tradenames, copyrights, patents and other intellectual property necessary for the present and ongoing conduct of its business, and the use thereof by the Borrower and each of its Subsidiaries does not infringe upon the rights of any other Person, except for any such infringements or the failure to own or have or continue to own or have which, as the case may be, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

SECTION 6.18 Indebtedness. Schedule 6.18 sets forth a list of all Indebtedness which would be included in Consolidated Total Indebtedness (including Contingent Obligations that would be included therein) with a principal amount outstanding in excess of \$10,000,000 of the Borrower and its Subsidiaries as of the Closing Date (excluding the Term Loans), in each case showing the aggregate principal amount thereof and the name of the respective borrower and the Borrower or any of its Subsidiaries which directly or indirectly guarantees such debt. In addition, the aggregate amount of Indebtedness which would be included in Consolidated Total Indebtedness (including Contingent Obligations that would be included therein) of the Borrower and its Subsidiaries as of the Closing Date and which is to remain outstanding after the Closing Date not so listed on Schedule 6.18 does not exceed \$50,000,000.

SECTION 6.19 [Reserved].

SECTION 6.20 Sanctions, Anti-Money Laundering and Anti-Corruption Laws. Neither the Borrower nor any of its Subsidiaries nor, to the knowledge of the Borrower, any of the officers, directors, employees or agents of itself or its Subsidiaries: (i) is, or is owned or controlled by, a Sanctioned Person; or (ii) is located, incorporated, organized, or resident in a Sanctioned Country. No proceeds from any Loan will be used, directly or indirectly, to lend, contribute, provide, or have otherwise been or will be made available to fund, any activity or business with any Sanctioned Person or Sanctioned Country, or in any other manner that will result in any violation or breach by Borrower, any of its Subsidiaries or any party hereto of Sanctions Laws or Anti-Corruption Laws. Borrower and its Subsidiaries have implemented and maintain in effect policies and procedures designed to ensure compliance by Borrower, its Subsidiaries and their respective directors, officers, employees and agents with Anti-Money Laundering Laws, Anti-Corruption Laws and Sanctions Laws, and Borrower, its Subsidiaries and their respective officers and employees and to the knowledge of the Borrower, its and its Subsidiaries' directors, employees and agents, are in compliance with Anti-Money Laundering Laws, Anti-Corruption Laws and Sanctions Laws in all material respects.

SECTION 6.21 EEA Financial Institutions. No Credit Party is an EEA Financial Institution.

ARTICLE VII

AFFIRMATIVE COVENANTS

The Borrower hereby covenants and agrees that on and after the Closing Date and until the Term Loan Commitment has been terminated and all Obligations (other than contingent indemnification obligations not then due) have been paid and satisfied in full in cash:

SECTION 7.1 Information Covenants. The Borrower will furnish to the Administrative Agent (who shall furnish to each Lender):

(a) Quarterly Financial Statements. Within 45 days after the close of each of the first three Fiscal Quarters in each Fiscal Year of the Borrower commencing with the Fiscal Quarter ended September 30, 2017, (i) the consolidated balance sheet of the Borrower and its Subsidiaries as at the end of such Fiscal Quarter and the related consolidated statements of income and retained earnings and statement of cash flows for such Fiscal Quarter and for the elapsed portion of the Fiscal Year ended with the last day of such Fiscal Quarter, in each case setting forth comparative figures for the corresponding Fiscal Quarter in the prior Fiscal Year, all of which shall be certified by the chief financial officer, the treasurer or any financial officer (including a controller) of the Borrower that they fairly present in all material respects in accordance with U.S. GAAP the financial condition of the Borrower and its Subsidiaries as of the dates indicated and the results of their operations for the periods indicated, subject to normal year-end audit adjustments and the absence of footnotes, and (ii) management's discussion and analysis of the important operational and financial developments during such Fiscal Quarter.

(b) Annual Financial Statements. Within 90 days after the close of each Fiscal Year of the Borrower, the consolidated balance sheet of the Borrower and its Subsidiaries as at the end of such Fiscal Year and the related consolidated statements of income and retained earnings and statement of cash flows for such Fiscal Year setting forth comparative figures for the preceding Fiscal Year, all reported on by independent public accountants of recognized national standing (without a "going concern" or like qualification or exception and without any qualification or exception as to the scope of such audit) to the effect that such consolidated financial statements present fairly in all material respects the financial condition and results of operations of the Borrower and its Subsidiaries on a consolidated basis in accordance with U.S. GAAP consistently applied.

(c) Management Letters. Promptly after receipt by the Borrower, a copy of any "management letter" received from the certified public accountants auditing the consolidated financial statements of the Borrower and its Subsidiaries, on a group basis, and management's response thereto.

(d) Officer's Certificates. At the time of the delivery of the financial statements provided for in Sections 7.1(a) and (b), an Officer's Compliance Certificate from the chief financial officer, treasurer or other financial officer (including a controller) of the Borrower substantially in the form of Exhibit F certifying on behalf of the Borrower that, to the best of such officer's knowledge, no Default or Event of Default has occurred and is continuing or, if any Default or Event of Default has occurred and is continuing, specifying the nature and extent thereof, which certificate shall set forth in reasonable detail the calculations required to establish whether the Borrower and its Subsidiaries were in compliance with the provisions of Sections 8.7 and 8.8 at the end of such Fiscal Quarter or Fiscal Year, as the case may be.

(e) Notice of Default, Litigation and Material Adverse Effect. Promptly, and in any event within five Business Days after any executive or senior managing officer of the Borrower obtains knowledge thereof, notice of (i) the occurrence of any event which constitutes a Default or an Event of Default, (ii) any litigation or governmental investigation or proceeding pending against the Borrower or any of its Subsidiaries with respect to any Loan Document, or (iii) any other event, change or circumstance that has had, or could reasonably be expected to have, a Material Adverse Effect.

(f) Other Reports and Filings. Promptly (but in any event within ten days) after the filing or delivery thereof, copies of all financial information, proxy materials and reports, if any, which the Borrower or any of its Subsidiaries shall publicly file with the SEC or deliver to holders (or any trustee, agent or other representative therefor) of any of its material Indebtedness pursuant to the terms of the documentation governing the same, provided that any financial information, proxy statements or other material required to be delivered pursuant to this Section 7.1(f) shall be deemed to have been furnished to each of the Administrative Agent and the Lenders on the date that such report, proxy statement or other material is posted on the Securities and Exchange Commission's website at www.sec.gov; provided further, that such information (other than any Form 10-K, Form 10-Q or proxy materials) shall be deemed to have been delivered when posted only upon notification by the Borrower to the Administrative Agent of such posting.

(g) Environmental Matters. Promptly after any officer of the Borrower or any of its Subsidiaries obtains knowledge thereof, notice of any Environmental Claim that results in, or could reasonably be expected to result in a Material Adverse Effect which notice shall describe in reasonable detail the nature of the claim, investigation, condition, occurrence or removal or remedial action and the Borrower's or such Subsidiary's response thereto.

(h) Rating Information. Promptly after any officer of the Borrower or any of its Subsidiaries obtains knowledge thereof, notice of any change in the corporate credit ratings of the Borrower by any Rating Agency (including, without limitation, a change in the outlook with respect to any such ratings), any notice from a Rating Agency indicating its intent to effect such a change in such ratings or its cessation of, or its intent to cease, providing such ratings of the Borrower, or any notice from a Rating Agency indicating its intent to place the Borrower on a "CreditWatch" or "WatchList" or any similar list, in each case with negative implications.

(i) Other Information. From time to time, such other information or documents (financial or otherwise) with respect to the Borrower or any of its Subsidiaries as the Administrative Agent or any Lender (through the Administrative Agent) may reasonably request.

SECTION 7.2 Books, Records and Inspections; Annual Meetings. The Borrower will, and will cause each of its Subsidiaries to, keep proper books of record and accounts in conformity with U.S. GAAP and all requirements of applicable law or, with respect to the books of record and accounts of a Subsidiary located outside the United States, in accordance with the applicable accounting standards and legal requirements of its local jurisdiction. The Borrower will, and will cause each of its Subsidiaries to, permit officers and designated representatives of the Administrative Agent or any Lender to visit and inspect, under guidance of officers of the Borrower or such Subsidiary, any of the properties of the Borrower or such Subsidiary, and to examine the books of accounts of the Borrower or such Subsidiary and discuss the affairs, finances and accounts of the Borrower or such Subsidiary with, and be

advised as to the same by, its and their officers and independent accountants, all upon reasonable prior notice and at such reasonable times and intervals (not to exceed once per calendar year unless a Default or Event of Default shall have occurred and be continuing) and to such reasonable extent as the Administrative Agent or any such Lender may reasonably request.

SECTION 7.3 Maintenance of Property; Insurance. The Borrower will, and will cause each of its Subsidiaries to, (i) keep all property necessary to the business of the Borrower and its Subsidiaries in good working order and condition, ordinary wear and tear excepted and subject to the occurrence of casualty events, (ii) maintain with financially sound and reputable insurance companies insurance on all such property and against all such risks as is consistent and in accordance with industry practice for companies similarly situated owning similar properties and engaged in similar businesses as the Borrower and its Subsidiaries, and (iii) furnish to the Administrative Agent, upon its request therefor, full information as to the insurance carried; provided that the Borrower and each of its Subsidiaries may self-insure to the extent it reasonably determines that such self-insurance is consistent with prudent business practice.

SECTION 7.4 Existence; Franchises. The Borrower will, and will cause each of its Subsidiaries to, do or cause to be done, all things necessary to preserve and keep in full force and effect its existence and its material rights, franchises, licenses, permits, copyrights, trademarks and patents; provided, however, that nothing in this Section 7.4 shall prevent (i) sales of assets and other transactions by the Borrower or any of its Subsidiaries in accordance with Section 8.2 or (ii) the withdrawal by the Borrower or any of its Subsidiaries of its qualification as a foreign Company in any jurisdiction if such withdrawal could not, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

SECTION 7.5 Compliance with Statutes, etc. The Borrower will, and will cause each of its Subsidiaries to, comply with all applicable statutes, regulations and orders of, and all applicable restrictions imposed by, all Governmental Authorities in respect of the conduct of its business and the ownership of its property (including applicable statutes, regulations, orders and restrictions relating to environmental standards and controls), except such non-compliances as could not, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

SECTION 7.6 Compliance with Environmental Laws. The Borrower will comply, and will cause each of its Subsidiaries to comply, with all Environmental Laws and permits applicable to, or required by, the ownership, lease or use of its Real Property now or hereafter owned, leased or operated by the Borrower or any of its Subsidiaries, except such noncompliances as could not, either individually or in the aggregate, reasonably be expected to have a Material Adverse Effect, and will promptly pay or cause to be paid all costs and expenses incurred in connection with such compliance. Neither the Borrower nor any of its Subsidiaries will generate, use, treat, store, Release or dispose of, or permit the generation, use, treatment, storage, Release or disposal of Hazardous Materials on any Real Property now or hereafter owned, leased or operated by the Borrower or any of its Subsidiaries, or transport or permit the transportation of Hazardous Materials to or from any such Real Property, except for Hazardous Materials generated, used, treated, stored, Released or disposed of at any such Real Properties in compliance in all material respects with all applicable Environmental Laws and as required in connection with the normal operation, use and maintenance of the business or operations of the Borrower or any of its Subsidiaries.

SECTION 7.7 ERISA Reporting Covenant; Employee Benefits Matters. The Borrower will deliver promptly to the Administrative Agent, within ten days of the Borrower knowing or having reason to know of any of the following, a written notice setting forth the nature thereof and the action, if any, that the Borrower, its Subsidiaries, or ERISA Affiliates, as applicable, propose to take with respect thereto:

- (i) with respect to any Plan, any reportable event, as defined in section 4043(b) of ERISA and the regulations thereunder, for which notice thereof has not been waived pursuant to such regulations; or
 - (ii) the taking by the PBGC of steps to institute, or the threatening by the PBGC of the institution of, proceedings under section 4042 of ERISA for the termination of, or the appointment of
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a trustee to administer, any Plan, or the receipt by the Borrower or any ERISA Affiliate, of a notice from a Multiemployer Plan that such action has been taken by the PBGC with respect to such Multiemployer Plan; or

(iii) any event, transaction or condition that could reasonably be expected to result in the incurrence of any liability by the Borrower or any ERISA Affiliate pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans, or in the imposition of any Lien on any of the rights, properties or assets of the Borrower or any of its Subsidiaries or any ERISA Affiliate, pursuant to Title I or IV of ERISA or such penalty or excise tax provisions, if such liability or Lien, taken together with any other such liabilities or Liens then existing, could reasonably be expected to have a Material Adverse Effect; or

(iv) receipt of notice of the imposition of a material financial penalty (which for this purpose shall mean any tax, penalty or other liability, whether by way of indemnity or otherwise) with respect to one or more Non-U.S. Plans that, either individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect.

SECTION 7.8 End of Fiscal Years; Fiscal Quarters. The Borrower will cause (i) its fiscal years to end on December 31 of each calendar year and (ii) its fiscal quarters to end on March 31, June 30, September 30 and December 31 of each calendar year.

SECTION 7.9 Payment of Taxes. The Borrower will pay and discharge, and will cause each of its Subsidiaries to pay and discharge, all (other than de minimis) federal and state income Taxes and all other material Taxes, assessments and governmental charges or levies imposed upon it or upon its income or profits or upon any properties belonging to it, prior to the date on which penalties attach thereto, and all material lawful claims which, if unpaid, might become a Lien or charge upon any properties of the Borrower or any of its Subsidiaries not otherwise permitted under Section 8.1(i); provided that neither the Borrower nor any of its Subsidiaries shall be required to pay any such tax, assessment, charge, levy or claim which is being contested in good faith and by proper proceedings if it has maintained adequate reserves with respect thereto in accordance with U.S. GAAP.

SECTION 7.10 Use of Proceeds. The Borrower will use the proceeds of the Term Loans only as provided in Section 6.8. The Borrower will not permit the proceeds from any Loan to be used, directly or indirectly, to lend, contribute, provide, or have otherwise been or will be made available to fund, any activity or business with any Sanctioned Person or Sanctioned Country, or in any other manner that will result in any violation or breach by the Borrower, any of its Subsidiaries or any party hereto of Sanctions Laws.

SECTION 7.11 Ratings. The Borrower will use commercially reasonable efforts to cause each of the Rating Agencies to continuously provide corporate credit ratings of the Borrower.

SECTION 7.12 Additional Subsidiary Guarantors.

(a) If at any time any Wholly-Owned Domestic Subsidiary of the Borrower is created, established or acquired and such Wholly Owned Domestic Subsidiary is (or would have been if at such time it had been a Wholly Owned Domestic Subsidiary of the Borrower), on the last day of the most recently ended Test Period for which financial statements have been or are required to have been delivered pursuant to Section 7.1(a) or (b), as applicable, a Material Subsidiary (with the “Immaterial Subsidiaries” tests being recalculated on a pro forma basis after giving effect to such creation, establishment or acquisition), the Borrower will, within 10 Business Days after such Wholly-Owned Domestic Subsidiary is created, established, acquired, notify the Administrative Agent thereof and, will as promptly as practicable, and in any event within sixty days, cause such Wholly-Owned Domestic Subsidiary to take all actions required for such Wholly-Owned Domestic Subsidiary to become a party to the Subsidiary Guaranty Agreement in accordance with the terms of the Subsidiary Guaranty Agreement and take all action in connection therewith as would otherwise have been required to be taken pursuant to Section 5.1 if such Wholly-Owned Domestic Subsidiary had been a Subsidiary Guarantor on the Closing Date; provided that if the Borrower determines in good faith, (before such Wholly-Owned Domestic Subsidiary has complied with the requirements of this Section 7.12(a)), that such Wholly-

Owned Domestic Subsidiary will not remain a Material Subsidiary for more than sixty days after the date of the creation, establishment or acquisition thereof, because of contemplated transfers of assets permitted under Section 8.2 by such Wholly-Owned Domestic Subsidiary (with the “Immaterial Subsidiary” tests being recalculated on a pro forma basis after giving effect to such transfers of assets), then so long as the Borrower notifies the Administrative Agent thereof within the sixty day period referenced above, such Wholly Owned Domestic Subsidiary shall not be required to become a Subsidiary Guarantor (unless the respective transfer of assets does not occur within such sixty day period or unless and until it is subsequently required to become a Subsidiary Guarantor pursuant to the provisions of Section 7.12(b)); provided, further that if the preceding proviso is applicable, the Borrower shall determine in good faith whether any of the transfers of assets contemplated by the preceding proviso would result in one or more other Wholly-Owned Domestic Subsidiaries of the Borrower which are not Subsidiary Guarantors and which previously constituted Immaterial Subsidiaries no longer constituting same (with determinations to be made in good faith on a pro forma basis to give effect to the respective transfers of assets), and if the Borrower determines in good faith that the result described above in this proviso would occur, then in such case within the sixty-day period described above the Borrower shall cause such Wholly-Owned Domestic Subsidiaries (which will not continue to constitute Immaterial Subsidiaries) to become Subsidiary Guarantors and to comply with the provisions of this Section 7.12(a) as if the respective transferee were a newly created, established or acquired Wholly-Owned Domestic Subsidiary. It is hereby understood and agreed that upon any Subsidiary being released as a “Subsidiary Guarantor” and being released from its obligations under the “Subsidiary Guaranty” in each case under (and as defined in) the Revolving Credit Agreement, such Subsidiary shall be concurrently and automatically be released as a Subsidiary Guarantor hereunder and be released from its obligations under the Subsidiary Guaranty. Without limiting the foregoing and notwithstanding the foregoing, the Borrower shall at all times cause each Subsidiary which is then a “Subsidiary Guarantor” (as defined in either of the Revolving Credit Agreement or the 2017 Term Loan Agreement) to be a Subsidiary Guarantor hereunder.

(b) If, on the date of delivery by the Borrower of each of the financial statements required to be delivered pursuant to Sections 7.1(a) or (b), as applicable, any of the Wholly-Owned Domestic Subsidiaries of the Borrower that is not a Subsidiary Guarantor at such time would, as of the last day of the fiscal quarter or fiscal year for which such financial statements are required to be delivered, qualify as a Material Subsidiary, then the Borrower will, within 10 Business Days notify the Administrative Agent thereof and, as promptly as practicable, and in any event within sixty days after the date of delivery (or required date of delivery, if earlier) of the respective financial statements, cause each Wholly Owned Domestic Subsidiary of the Borrower (other than such Wholly-Owned Domestic Subsidiaries as will not constitute Material Subsidiaries after the taking of the actions required by this Section 7.12(b)) to take all actions required for such Wholly-Owned Domestic Subsidiary to become a party to the Subsidiary Guaranty Agreement in accordance with the terms of the Subsidiary Guaranty Agreement and take all action in connection therewith as would otherwise have been required to be taken pursuant to Section 5.1 if such Wholly-Owned Domestic Subsidiary had been a Subsidiary Guarantor on the Closing Date; provided that if the Borrower determines in good faith (before the respective Wholly-Owned Domestic Subsidiary has complied with the requirements of this Section 7.12(b)), that such Wholly-Owned Domestic Subsidiary will not remain a Material Subsidiary for more than sixty days after the date of delivery (or required date of delivery, if earlier) of the respective financial statements, because of contemplated transfers of assets permitted under Section 8.2 by such Wholly-Owned Domestic Subsidiary (with the “Immaterial Subsidiary” tests being recalculated on a pro forma basis after giving effect to such transfers of assets), then so long as the Borrower notifies the Administrative Agent thereof within the sixty day period referenced above, such Wholly-Owned Domestic Subsidiary shall not be required to become a Subsidiary Guarantor (unless the respective transfer of assets does not occur within such sixty day period or unless and until it is subsequently required to become a Subsidiary Guarantor pursuant to the provisions of this Section 7.12(b)); provided, further that if the preceding proviso is applicable, the Borrower shall determine in good faith whether any of the transfers of assets contemplated by the preceding proviso would result in one or more other Wholly-Owned Domestic Subsidiaries of the Borrower which are not Subsidiary Guarantors and which previously constituted Immaterial Subsidiaries no longer constituting same (with determinations to be made in good faith on a pro forma basis to give effect to the respective transfers of assets), and if the Borrower determines in good faith that the result described above in this proviso would occur, then in such

case within the sixty-day period described above the Borrower shall cause such Wholly-Owned Domestic Subsidiaries (which will not continue to constitute Immaterial Subsidiaries) to become Subsidiary Guarantors and to comply with the provisions of this Section 7.12(b) as if the respective transferee were a Material Subsidiary on the last day of the respective fiscal quarter or fiscal year for which financial statements are acquired to be delivered pursuant to Section 7.1(a) or (b), as applicable.

SECTION 7.13 Maintenance of Company Separateness. The Borrower will, and the Borrower will cause each of its Material Subsidiaries and each SPV to, satisfy in all material respects customary Company formalities, including the holding of regular board of directors' and shareholders' meetings or action by directors or shareholders without a meeting and the maintenance of Company records. In addition, neither the Borrower nor any of its Subsidiaries shall take any action, or conduct its affairs in a manner, which is likely to result in the Company existence of the Borrower, any other Credit Party or any Non-Guarantor Subsidiaries being ignored, or in the assets and liabilities of the Borrower or any other Credit Party being substantively consolidated with those of any other such Person or any Non-Guarantor Subsidiary in a bankruptcy, reorganization or other insolvency proceeding.

SECTION 7.14 Sanctions and Anti-Money Laundering Laws. The Borrower will use commercially reasonable efforts to ensure that no Term Loan or other funds used to repay any Obligation (i) constitute the property of, or are beneficially owned, directly or indirectly, by any Sanctioned Person; or (ii) are derived from any transactions or business with any Sanctioned Person or Sanctioned Country. The Borrower shall take reasonable measures designed to ensure compliance with Sanctions Laws, Anti-Corruption Laws and Anti-Money Laundering Laws. No Credit Party shall become a Sanctioned Person.

ARTICLE VIII

NEGATIVE COVENANTS

The Borrower hereby covenants and agrees that on and after the Closing Date and until the Term Loan Commitment has been terminated and all Obligations (other than contingent indemnification obligations not then due) have been paid and satisfied in full in cash:

SECTION 8.1 Liens. The Borrower will not, and will not permit any of its Subsidiaries to, create, incur, assume or suffer to exist any Lien upon or with respect to any property or assets (real or personal, tangible or intangible) of the Borrower or any of its Subsidiaries, whether now owned or hereafter acquired; provided that the provisions of this Section 8.1 shall not prevent the creation, incurrence, assumption or existence of the following (Liens described below are herein referred to as "Permitted Liens"):

(i) inchoate Liens for taxes, assessments or governmental charges or levies not yet due or Liens for taxes, assessments or governmental charges or levies being contested in good faith and by appropriate proceedings for which adequate reserves have been established in accordance with U.S. GAAP;

(ii) Liens in respect of property or assets of the Borrower or any of its Subsidiaries imposed by law, which were incurred in the ordinary course of business and do not secure Indebtedness for borrowed money, such as carriers', warehousemen's, materialmen's and mechanics' liens and other similar Liens arising in the ordinary course of business, and (x) which do not in the aggregate materially detract from the value of the Borrower's or such Subsidiary's property or assets or materially impair the use thereof in the operation of the business of the Borrower or such Subsidiary or (y) which are being contested in good faith by appropriate proceedings, which proceedings have the effect of preventing the forfeiture or sale of the property or assets subject to any such Lien;

(iii) Liens in existence on the Closing Date which are listed in Schedule 8.1, plus renewals, replacements and extensions of such Liens to the extent set forth on such Schedule 8.1, provided that any such renewal, replacement or extension does not encumber any additional assets or properties of the Borrower or any of its Subsidiaries except to the extent that Liens or such additional assets or properties are permitted under another provision of this Section 8.1;

(iv) Liens created by or pursuant to this Agreement and the other Loan Documents;

(v) (x) licenses, sublicenses, leases or subleases granted by the Borrower or any of its Subsidiaries to other Persons not materially interfering with the conduct of the business of the Borrower or any of its Subsidiaries and (y) any interest or title of a lessor, sublessor or licensor under any operating lease or license agreement not prohibited by this Agreement to which the Borrower or any of its Subsidiaries is a party (including, without limitation, a Lien on the Borrower's license of the "Pink Panther" trademark and any proceeds thereof in favor of the licensor thereof);

(vi) Liens upon assets of the Borrower or any of its Subsidiaries subject to Capitalized Lease Obligations to the extent such Capitalized Lease Obligations are permitted by Section 8.4(iv), provided that (x) such Liens only serve to secure the payment of Indebtedness arising under such Capitalized Lease Obligation and (y) the Lien encumbering the asset giving rise to the Capitalized Lease Obligation does not encumber any other asset of the Borrower or any Subsidiary of the Borrower;

(vii) Liens placed upon equipment or machinery used in the ordinary course of business of the Borrower or any of its Subsidiaries and placed at the time of the acquisition thereof by the Borrower or such Subsidiary or within 180 days thereafter to secure Indebtedness incurred to pay all or a portion of the purchase price thereof or to secure Indebtedness incurred solely for the purpose of financing the acquisition of any such equipment or machinery or extensions, renewals or replacements of any of the foregoing for the same or a lesser amount, provided that (x) the Indebtedness secured by such Liens is permitted by Section 8.4 and (y) in all events, the Lien encumbering the equipment or machinery so acquired does not encumber any other asset of the Borrower or such Subsidiary;

(viii) easements, rights-of-way, restrictions, encroachments and other similar charges or encumbrances, and minor title deficiencies, in each case not securing Indebtedness and not materially interfering with the conduct of the business of the Borrower or any of its Subsidiaries;

(ix) Liens arising from precautionary Uniform Commercial Code financing statement filings regarding operating leases entered into in the ordinary course of business;

(x) Liens arising out of the existence of judgments or decrees (but excluding consensual Liens granted by the Borrower or any of its Subsidiaries on any of their assets) that do not constitute an Event of Default under Section 9.1(g);

(xi) statutory and common law landlords' liens under leases to which the Borrower or any of its Subsidiaries is a party;

(xii) Liens (other than Liens imposed under ERISA) incurred in the ordinary course of business in connection with workers compensation claims, unemployment insurance and social security benefits and Liens securing the performance of bids, tenders, leases and contracts in the ordinary course of business, statutory obligations, surety bonds, performance, completion and guarantee bonds and other obligations of a like nature incurred in the ordinary course of business and consistent with past practice (exclusive of obligations in respect of the payment for borrowed money);

(xiii) Liens on property or assets acquired by the Borrower or any of its Subsidiaries in existence at the time such property or asset is acquired by the Borrower or such Subsidiary (including by the merger or acquisition of any Person), provided that (x) any Indebtedness that is secured by such Liens is permitted to exist under Section 8.4, and (y) such Liens are not incurred in connection with, or in contemplation or anticipation of, such merger or acquisition and do not attach to any other asset of the Borrower or any of its Subsidiaries;

(xiv) Liens arising out of any conditional sale, title retention, consignment or other similar arrangements for the sale of goods entered into by the Borrower or any of its Subsidiaries in the ordinary course of business to the extent such Liens do not attach to any assets other than the goods subject to such arrangements;

(xv) Liens (x) incurred in the ordinary course of business in connection with the purchase or shipping of goods or assets (or the related assets and proceeds thereof), which Liens are in favor of the seller or shipper of such goods or assets and only attach to such goods or assets, (y) incurred in the ordinary course of business in connection with property owned by third parties installed to provide energy or oxygen at the facilities of the Borrower and its Subsidiaries pursuant to any supply arrangement or operating lease (but not pursuant to a Capital Lease) and (z) in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;

(xvi) bankers' Liens, rights of setoff and other similar Liens existing solely with respect to cash and Cash Equivalents on deposit in one or more accounts maintained by the Borrower or any Subsidiary, in each case granted in the ordinary course of business in favor of the bank or banks with which such accounts are maintained, securing amounts owing to such bank or banks with respect to cash management and operating account arrangements;

(xvii) Liens created on assets transferred to an SPV pursuant to Asset Securitizations (which assets shall be of the types described in the definition of Asset Securitization contained herein), securing Attributable Securitization Indebtedness permitted to be outstanding pursuant to Section 8.4(v); and

(xviii) additional Liens of the Borrower or any Subsidiary of the Borrower not otherwise permitted by this Section 8.1, so long as the aggregate amount (exclusive of regularly accruing interest or similar amounts which are paid on a current basis) of obligations secured by Liens permitted pursuant to this Section 8.1(xviii) does not exceed \$300,000,000 at any time.

SECTION 8.2 Consolidation, Merger, Purchase or Sale of Assets, etc. . The Borrower will not, and will not permit any of its Subsidiaries to, wind up, liquidate or dissolve its affairs or enter into any transaction of merger or consolidation, or convey, sell, lease or otherwise dispose of all or any part of its property or assets (other than sales of inventory, raw materials, supplies and used or surplus equipment, in each case in the ordinary course of business), or enter into any sale-leaseback transactions, or purchase or otherwise acquire (in one or a series of related transactions) all or substantially all of the Equity Interests in or assets of any Person (each such purchase or acquisition, an "Acquisition") (or agree to do any of the foregoing at any future time), except that:

(i) each of the Borrower and any of its Subsidiaries may liquidate or otherwise dispose of obsolete or worn-out property in the ordinary course of business, and may dissolve, liquidate or merge out of existence a Subsidiary, the continued existence of which is no longer materially advantageous to the Borrower or its Subsidiaries;

(ii) each of the Borrower and any of its Subsidiaries may sell assets including pursuant to a transaction of merger or consolidation, including the Equity Interests of a Subsidiary of the Borrower so long as (x) no Default or Event of Default then exists or would result therefrom, (y) in the case of the sale of the Equity Interests of any Credit Party, all of the Equity Interests of such Credit Party and its other Subsidiaries are sold pursuant to such sale and (z) the Fair Market Value of such assets when added to the Fair Market Value of all assets sold pursuant to this clause (ii) of the Borrower and its Subsidiaries previously sold pursuant to this Section 8.2(ii), does not exceed \$350,000,000 in any Fiscal Year;

(iii) each of the Borrower and any of its Subsidiaries may sell or discount, in each case without recourse and in the ordinary course of business, accounts receivable arising in the ordinary course of business, but only in connection with the compromise or collection thereof and, subject to Section 8.2(vii), not as part of any financing transaction;

(iv) each of the Borrower and any of its Subsidiaries may grant licenses, sublicenses, leases or subleases to other Persons not materially interfering with the conduct of the business of the Borrower or any of its Subsidiaries;

(v) each of the Borrower and any of its Subsidiaries may convey, lease, rent, sell or otherwise transfer all or any part of its business, properties and assets to the Borrower or to any other Subsidiary of the Borrower;

(vi) each of the Borrower and any of its Subsidiaries may merge or consolidate with and into, be dissolved or liquidated into, or amalgamate with any other Person, so long as (i) in the case of any such merger, consolidation, dissolution, liquidation or amalgamation involving the Borrower, the Borrower is the surviving or continuing entity of any such merger, consolidation, dissolution, liquidation or amalgamation and such entity is a U.S. Person and (ii) in all other cases, the surviving or continuing corporation of any such merger, consolidation, dissolution, liquidation or amalgamation is a Subsidiary of the Borrower;

(vii) each of the Borrower and any of its Subsidiaries party to an Asset Securitization may sell accounts and related general intangibles, chattel paper, instruments, security and collections with respect thereto pursuant to such Asset Securitization (after the execution thereof), so long as (x) each such sale is in an arm's-length transaction and on terms consistent with prevailing market conditions for similar transactions at such

time and (y) the aggregate Attributable Securitization Indebtedness shall not exceed \$400,000,000 at any time outstanding;

(viii) each of the Borrower and any of its Subsidiaries may liquidate or otherwise dispose of Cash Equivalents in the ordinary course of business;

(ix) each of the Borrower and any of its Subsidiaries may consummate an Acquisition, so long as no Default or Event of Default shall have occurred and be continuing at the time of the consummation of the proposed Acquisition or immediately after giving effect thereto (each such Acquisition, a “Permitted Acquisition”);

(x) each of the Borrower and any of its Subsidiaries may transfer and dispose of inventory, raw materials, equipment, Real Property and other tangible assets in exchange for consideration comprised of inventory, raw materials, supplies, used or surplus equipment, Real Property and other tangible assets or some combination thereof, in each case in the ordinary course of business, so long as (x) no Default or Event of Default then exists or would result therefrom and (y) the book value of such assets at the time of the consummation of such sale, when added to the book value of all assets of the Borrower and its Subsidiaries previously sold pursuant to this Section 8.2(x), does not exceed \$250,000,000 at any time; and

(xi) each of the Borrower and any of its Subsidiaries may sell, transfer or convey raw materials, equipment, Real Property and other tangible assets to the extent that the Net Sale Proceeds therefrom are used to acquire replacement raw materials, equipment, real property and other tangible assets within 270 days after receipt of such Net Sale Proceeds (and in the case of any contractual commitment to so apply such Net Sale Proceeds entered into within such 270 day period, within 360 days after receipt of such Net Sale Proceeds).

SECTION 8.3 Dividends. The Borrower will not, and will not permit any of its Subsidiaries to, authorize, declare or pay any Dividends with respect to the Borrower or any of its Subsidiaries, except that:

(i) (x) any Subsidiary of the Borrower may pay Dividends to the Borrower or to any Wholly-Owned Subsidiary of the Borrower and (y) any Non-Wholly Owned Subsidiary of the Borrower may pay cash dividends to its shareholders generally so long as the Borrower or its respective Subsidiary which owns the Equity Interests in the Subsidiary paying such Dividends receives at least its proportionate share thereof (based upon its relative holding of the Equity Interests in the Subsidiary paying such Dividends and taking into account the relative preferences, if any, of the various classes of Equity Interests of such Subsidiary); and

(ii) the Borrower and its Subsidiaries may authorize, declare and pay any other cash Dividend so long as (x) no Default or Event of Default exists at the time of such authorization, declaration or payment or would exist immediately after giving effect thereto and (y) such authorization, declaration or payment will not violate (I) any provision of the certificate or articles of incorporation, certificate of formation, limited liability company agreement or by-laws (or equivalent organizational documents), as applicable, of such Person or (II) any material agreement, instrument, judgment, decree, order, statute, rule or governmental regulation applicable to such Person.

SECTION 8.4 Indebtedness. The Borrower will not, and will not permit any of its Subsidiaries to contract, create, incur, assume or suffer to exist any Indebtedness, except:

(i) unsecured Indebtedness of the Credit Parties so long as, on the date of the respective incurrence thereof, no Default or Event of Default then exists or would result therefrom;

(ii) unsecured Indebtedness of the Non-Guarantor Subsidiaries so long as (x) on the date of the respective incurrence thereof, no Default or Event of Default then exists or would result therefrom and (y) the aggregate principal amount of all such outstanding Indebtedness, (I) does not exceed \$400,000,000 at any time and (II) when added to the aggregate principal amount of all outstanding Indebtedness incurred by the Borrower and its Subsidiaries pursuant to Section 8.4(iii), does not exceed \$600,000,000 at any time;

(iii) secured Indebtedness of the Borrower and its Subsidiaries so long as (x) on the date of the respective incurrence thereof no Default or Event of Default then exists or would result therefrom and (y) the aggregate principal amount of all such outstanding Indebtedness, (I) does not exceed

\$300,000,000 at any time and (II) when added to the aggregate principal amount of all outstanding Indebtedness incurred by the Non-Guarantor Subsidiaries pursuant to Section 8.4(ii), does not exceed \$600,000,000 at any time;

(iv) Indebtedness of the Borrower and its Subsidiaries incurred to finance fixed or capital assets or evidenced by Capitalized Lease Obligations and purchase money Indebtedness described in Section 8.1(vi) or (vii), provided that in no event shall the sum of the aggregate principal amount of all such Indebtedness permitted by this Section 8.4(iv) (as measured on the date of each incurrence pursuant to this Section 8.4(iv)) exceed 5% of Consolidated Net Tangible Assets of the Borrower and its Subsidiaries as of the last day of the last Fiscal Year for which financial statements have been delivered pursuant to Section 7.1(b);

(v) Attributable Securitization Indebtedness incurred under or in connection with any Asset Securitization in an aggregate principal amount not to exceed \$400,000,000 at any time outstanding;

(vi) Indebtedness constituting Intercompany Loans, to the extent permitted pursuant to Section 8.5 (and subject to the requirements, if applicable, of Section 8.11);

(vii) Indebtedness consisting of guaranties or Contingent Obligations by the Borrower and its Subsidiaries of each other's Indebtedness and lease and other obligations permitted under this Agreement; provided that no Non-Guarantor Subsidiaries shall be permitted to furnish a guarantee (except to the extent such guarantee is permitted pursuant to Section 8.4(ii)) or Contingent Obligation in respect, or in support, of any Indebtedness or lease or other obligations of the Borrower or any other Credit Party;

(viii) Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business, so long as such Indebtedness is extinguished within four Business Days of its incurrence;

(ix) Indebtedness of the Borrower and its Subsidiaries with respect to performance bonds, surety bonds, completion bonds, guaranty bonds, appeal bonds or customs bonds required in the ordinary course of business or in connection with the enforcement of rights or claims of the Borrower or any of its Subsidiaries or in connection with judgments that do not result in a Default or an Event of Default;

(x) Indebtedness of the Borrower or any of its Subsidiaries which may be deemed to exist in connection with agreements providing for indemnification, purchase price adjustments and similar obligations in connection with the acquisition or disposition of assets in accordance with the requirements of this Agreement, so long as any such obligations are those of the Person making the respective acquisition or sale, and are not guaranteed by any other Person except as permitted by Section 8.4(vii);

(xi) Indebtedness of the Borrower and its Subsidiaries existing on the Closing Date (but excluding the Obligations) and extensions, renewals, replacements and refinancings of any such Indebtedness that do not (I) increase the outstanding principal amount thereof (except by the amount of any premium or fee paid or payable in connection with such extension, renewal or replacement) unless otherwise permitted pursuant to another provision of this Section 8.4, (II) have any additional obligors or guarantors with respect thereto unless otherwise permitted pursuant to another provision of this Section 8.4 or (III) have any additional Liens to secure such Indebtedness; and

(xii) Indebtedness of the Borrower and its Subsidiaries in respect of letters of credit obtained or deposits made in order to provide security for workers' compensation claims or pension plans, payment obligations in connection with self-insurance or pursuant to statutory obligations, in each case in the ordinary course of business.

SECTION 8.5 Advances, Investments and Loans. The Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, lend money or credit or make advances to any Person, or purchase or acquire any stock, obligations or securities of, or any other Equity Interest in, or make any capital contribution to, any other Person, or enter into any partnership or joint venture, or purchase or own a futures contract or otherwise become liable for the purchase or sale of currency or other commodities at a future date in the nature of a futures contract (each of the foregoing an "Investment"), except that the following shall be permitted:

- (i) the Borrower and its Subsidiaries may acquire and hold accounts receivables owing to any of them, if created or acquired in the ordinary course of business and payable or dischargeable in accordance with customary trade terms of the Borrower or such Subsidiary;
 - (ii) the Borrower and its Subsidiaries may hold the Investments held by them on the Closing Date, provided that any additional Investments made with respect thereto shall be permitted only if permitted under the other provisions of this Section 8.5;
 - (iii) the Borrower and its Subsidiaries may acquire and own investments (including debt obligations) received in connection with the bankruptcy or reorganization of suppliers and customers and in good faith settlement of delinquent obligations of, and other disputes with, customers and suppliers arising in the ordinary course of business;
 - (iv) the Borrower and its Subsidiaries may make loans and advances to their officers and employees for moving, relocation and travel expenses and other similar expenditures, in each case in the ordinary course of business;
 - (v) the Borrower and its Subsidiaries may acquire and hold obligations of their officers and employees in connection with such officers' and employees' acquisition of shares of Borrower Common Stock (so long as no cash is actually advanced by the Borrower or any of its Subsidiaries in connection with the acquisition of such obligations);
 - (vi) the Borrower and its Subsidiaries may enter into (x) Interest Rate Protection Agreements entered into with respect to other Indebtedness permitted under Section 8.4 and (y) Other Hedging Agreements entered into in the ordinary course of business and providing protection to the Borrower and its Subsidiaries against fluctuations in currency values or commodity prices in connection with the Borrower or any of its Subsidiaries' operations, in either case so long as the entering into of such Interest Rate Protection Agreements or Other Hedging Agreements are bona fide hedging activities and are not for speculative purposes;
 - (vii) the Borrower, the other Credit Parties and their respective Subsidiaries may make intercompany loans and advances to each other (such intercompany loans and advances, collectively, the "Intercompany Loans");
 - (viii) (I) the Borrower and the other Credit Parties may make capital contributions to, or acquire Equity Interests of, any other Credit Party, (II) the Borrower and the other Credit Parties may make capital contributions to, or acquire Equity Interests of, Non-Guarantor Subsidiaries and Persons that are not Subsidiaries of the Borrower, and may capitalize or forgive any Indebtedness owed to them by any Non-Guarantor Subsidiary and outstanding under Section 8.5(vii), and (III) any Non-Wholly-Owned Subsidiary may make capital contributions to, or acquire Equity Interests of, any other Non-Guarantor Subsidiary, and may capitalize or forgive any Indebtedness owed to it by a Non-Guarantor Subsidiary; provided that no contribution, capitalization or forgiveness may be made pursuant to preceding subclause (II) at any time that a Default or an Event of Default has occurred and is continuing;
 - (ix) Contingent Obligations permitted by Section 8.4, to the extent constituting Investments;
 - (x) Permitted Acquisitions shall be permitted in accordance with the requirements of Section 8.2;
 - (xi) the Borrower and its Subsidiaries may receive and hold promissory notes and other non-cash consideration received in connection with any asset sale permitted by Section 8.2(ii);
 - (xii) the Borrower and its Subsidiaries may make advances in the form of a prepayment of expenses to vendors, suppliers and trade creditors consistent with their past practices, so long as such expenses were incurred in the ordinary course of business of the Borrower or such Subsidiary;
 - (xiii) the Borrower and its Subsidiaries may make and hold Investments in Cash Equivalents; and
 - (xiv) the Borrower and its Subsidiaries may make, hold and enter into additional Investments so long as, at the time of making such Investment, no Default or Event of Default then exists or would result therefrom.
-

SECTION 8.6 Transactions with Affiliates. The Borrower will not, and will not permit any of its Subsidiaries to, enter into any transaction or series of related transactions with any Affiliate of the Borrower or any of its Subsidiaries (other than the Borrower and its Subsidiaries and any Person that is an Affiliate solely as a result of the ownership by the Borrower or any of its Subsidiaries of the Equity Interests of such Person) other than in the ordinary course of business and on terms and conditions substantially as favorable or more favorable to the Borrower or such Subsidiary as would reasonably be obtained by the Borrower or such Subsidiary at that time in a comparable arm's-length transaction with a Person other than an Affiliate, except that the following in any event shall be permitted:

- (i) customary fees, indemnities and reimbursements may be paid to non-officer directors of the Borrower and its Subsidiaries and loans and advances permitted by Section 8.5(iv);
- (ii) the Borrower may issue Borrower Common Stock and Qualified Preferred Stock; and
- (iii) the Borrower and its Subsidiaries may enter into, and may make payments under, employment agreements, employee benefits plans, stock option plans, indemnification provisions and other similar compensatory arrangements with officers, employees and directors of the Borrower and its Subsidiaries in the ordinary course of business.

SECTION 8.7 Interest Expense Coverage Ratio. The Borrower will not permit the Interest Expense Coverage Ratio for any Test Period ending on the last day of a Fiscal Quarter to be less than 2.25:1.00; provided that compliance with this Section 8.7 for each Test Period shall be determined on the earlier to occur of (x) the date upon which the Borrower delivers financial statements for the last Fiscal Quarter of such Test Period pursuant to Section 7.1(a) or (b) (in which case such compliance shall be determined based upon such delivered financial statements) and (y) the thirtieth (30th) day after the last day of the last Fiscal Quarter of such Test Period (in which case such compliance shall be determined based upon internally prepared financial statements of the Borrower and its Subsidiaries on such date and shall then also be determined on the date described in preceding clause (x) based upon the delivered financial statements described in preceding clause (x)); provided further, that if at any time subsequent to the delivery of any such financial statements described above with respect to any Test Period, there are subsequent adjustments thereto (or to the financial results described therein), such subsequent adjustments shall be given full force and effect.

SECTION 8.8 Leverage Ratio. The Borrower will not permit the ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization at any time to exceed 0.60:1.00; provided that for determining compliance with this Section 8.8 at any time, (x) in calculating Consolidated Total Capitalization, Consolidated Net Worth shall be determined based upon the financial statements most recently delivered to the Administrative Agent pursuant to Section 7.1(a) or (b), unless the Borrower has not delivered such financial statements within 30 days of the last day of the most recently ended Fiscal Quarter, in which case Consolidated Net Worth shall be determined based upon internally prepared financial statements of the Borrower and its Subsidiaries until such time as the Borrower delivers financial statements for such Fiscal Quarter to the Administrative Agent pursuant to Section 7.1(a) or (b) for such Fiscal Quarter (at which time Consolidated Net Worth shall be determined based upon such delivered financial statements), provided that if at any time subsequent to the delivery of any such financial statements described above, there are subsequent adjustments thereto (or to the financial results described therein), such subsequent adjustments shall be given full force and effect and (y) Consolidated Total Indebtedness shall be the actual Consolidated Total Indebtedness at such time. In determining the ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization at any time, actual Consolidated Total Indebtedness on the respective date of determination shall be used, with Consolidated Net Worth to be determined based on the last available calculation of Consolidated Net Worth as calculated pursuant to the proviso to the immediately preceding sentence; provided, further, that such Consolidated Net Worth shall be adjusted for any issuance of Equity Interests of the Borrower and for any Dividends actually paid by the Borrower and/or its respective Subsidiaries (to Persons other than the Borrower and Subsidiaries thereof), after the date of the respective calculation of Consolidated Net Worth and on or prior to the date of the next determination of Consolidated Net Worth as described above.

SECTION 8.9 Modifications of Certain Agreements. The Borrower will not, and will not permit any of its Subsidiaries to amend or modify, or permit the amendment or modification of, any provision of any Senior Notes Document in a manner materially adverse to the interests of the Lenders (in their capacity as Lenders).

SECTION 8.10 Limitation on Certain Restrictions on Subsidiaries. The Borrower will not, and will not permit any of its Subsidiaries to, directly or indirectly, create or otherwise cause or suffer to exist or become effective any encumbrance or restriction on the ability of any such Subsidiary to (a) pay dividends or make any other distributions on its capital stock or any other Equity Interest or participation in its profits owned by the Borrower or any of its Subsidiaries, or pay any Indebtedness owed to the Borrower or any of its Subsidiaries, (b) [reserved] or (c) transfer any of its properties or assets to the Borrower or any of its Subsidiaries, except for such encumbrances or restrictions existing under or by reason of (i) applicable law, (ii) this Agreement and the other Loan Documents, (iii) the Senior Notes Documents, (iv) customary provisions restricting subletting or assignment of any lease governing any leasehold interest of the Borrower or any of its Subsidiaries, (v) customary provisions restricting assignment of any licensing agreement (in which the Borrower or any of its Subsidiaries is the licensee) or other contract entered into by the Borrower or any of its Subsidiaries in the ordinary course of business, (vi) restrictions on the transfer of any asset pending the close of the sale of such asset, (vii) restrictions on the transfer of any asset subject to a Lien permitted by Section 8.1(ii), (vi), (vii), (xi), (xii), (xiii), (xiv), (xv), (xvi), (xvii) or (xviii); or (viii) with respect to any Non- Wholly Owned Subsidiary, any agreement requiring the consent of each Person holding Equity Interests in such Non-Wholly Owned Subsidiary for such Non-Wholly Owned Subsidiary to pay dividends or make any other distributions on its capital stock or any other Equity Interests.

ARTICLE IX

DEFAULT AND REMEDIES

SECTION 9.1 Events of Default. Each of the following specified events shall constitute an “Event of Default”:

(a) Payments. The Borrower shall default in the payment when due (whether at maturity, by reason of acceleration or otherwise) of (a) principal of any Term Loan or any Term Loan Note or (b) any interest on any Term Loan or any Term Loan Note, any fees or any other amounts owing hereunder or under any other Loan Documents and such default described in this clause (b) shall continue unremedied for five or more Business Days; or

(b) Representations, etc. Any representation, warranty or statement made or deemed made by any Credit Party herein or in any other Loan Document or in any certificate delivered to the Administrative Agent or any Lender pursuant hereto or thereto shall prove to be untrue in any material respect on the date as of which made or deemed made; or

(c) Covenants. The Borrower or any of its Subsidiaries shall (i) default in the due performance or observance by it of any term, covenant or agreement contained in Section 7.1(e)(i), 7.4 (with respect to the existence of the Borrower), 7.8 or 7.10 or Article VIII or (ii) default in the due performance or observance by it of any other term, covenant or agreement contained in this Agreement (other than those set forth in Sections 9.1(a) and 9.1(b)) or any other Loan Document and such default shall continue unremedied for a period of 30 days after written notice thereof to the defaulting party by the Administrative Agent or any Lender; or

(d) Default Under Other Agreements. (i) The Borrower or any of its Subsidiaries shall (x) default in any payment of any Indebtedness (other than the Obligations) beyond the period of grace, if any, provided in an instrument or agreement under which such Indebtedness was created or (y) default in the observance or performance of any agreement or condition relating to any Indebtedness (other than the Obligations) or contained in any instrument or agreement evidencing, securing or relating thereto, or any other event shall occur or condition exist, the effect of which default or other event or condition is to cause, or to permit the holder or holders of such Indebtedness (or a trustee or agent on behalf of such holder or holders) to cause (determined without regard to whether any notice is required, but after giving effect to any applicable grace periods), any such Indebtedness to become due prior to its stated maturity, or (ii) any Indebtedness (other than the Obligations) of the Borrower or any of its Subsidiaries shall be declared to be (or shall become) due and payable, or required to be prepaid other than by a regularly scheduled required prepayment, prior to the stated maturity thereof, provided that it shall not be a Default or an Event of Default under this Section 9.1(d) unless

(A) the aggregate principal amount of all Indebtedness as described in preceding clauses (i) and (ii) is at least \$75,000,000 or (B) the Indebtedness described in preceding clauses (i) and (ii) arises under the Revolving Credit Agreement or the 2017 Term Loan Agreement; or

(e) Bankruptcy, etc. The Borrower or any other Credit Party shall commence a voluntary case concerning itself under Title 11 of the United States Code entitled "Bankruptcy," as now or hereafter in effect, or any successor thereto (the "Bankruptcy Code"); or an involuntary case is commenced against the Borrower or any other Credit Party, and the petition is not dismissed within sixty days after the filing thereof, provided, however, that during the pendency of such period, each Lender shall be relieved of its obligation to extend credit hereunder; or a custodian (as defined in the Bankruptcy Code) is appointed for, or takes charge of, all or substantially all of the property of the Borrower or other Credit Party, to operate all or any substantial portion of the business of the Borrower or any other Credit Party, or the Borrower or any other Credit Party commences any other proceeding under any reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency or liquidation or similar law of any jurisdiction whether now or hereafter in effect relating to the Borrower or any other Credit Party, or there is commenced against the Borrower or any other Credit Party any such proceeding which remains undismissed for a period of sixty days after the filing thereof, or the Borrower or any other Credit Party is adjudicated insolvent or bankrupt; or any order of relief or other order approving any such case or proceeding is entered; or the Borrower or any other Credit Party makes a general assignment for the benefit of creditors; or any Company action is taken by the Borrower or any other Credit Party for the purpose of effecting any of the foregoing; or

(f) ERISA. If (i) any Plan shall fail to satisfy the minimum funding standards of Section 302 of ERISA or Section 412 of the Code for any plan year or part thereof or a waiver of such standards or extension of any amortization period is sought or granted under section 412 of the Code, (ii) a notice of intent to terminate any Plan shall have been or is reasonably expected to be filed with the PBGC or the PBGC shall have instituted proceedings under ERISA section 4042 to terminate or appoint a trustee to administer any Plan or the PBGC shall have notified the Borrower or any ERISA Affiliate that a Plan may become a subject of any such proceedings, (iii) there is an "amount of unfunded benefit liabilities" (within the meaning of section 4001(a)(18) of ERISA) under any Plan, determined in accordance with Title IV of ERISA, or an amount (if any) by which the present value of accrued benefit liabilities under any Non-U.S. Plan exceeds the aggregate current value of the assets of such Non-U.S. Plan allocable to such liabilities, (iv) the Borrower or any ERISA Affiliate shall have incurred or is reasonably expected to incur any liability pursuant to Title I or IV of ERISA or the penalty or excise tax provisions of the Code relating to employee benefit plans, (v) the Borrower or any ERISA Affiliate withdraws from any Multiemployer Plan, (vi) the Borrower or any ERISA Affiliate establishes or amends any employee welfare benefit plan that provides post-employment welfare benefits in a manner that would increase the liability of the Borrower, or (vii) the Borrower fails to administer or maintain a Plan or Non-U.S. Plan in compliance with the requirements of any and all applicable laws, statutes, rules, regulations or court orders or any Plan or Non-U.S. Plan is involuntarily terminated or wound up, or (viii) the Borrower, any of its Subsidiaries, or any ERISA Affiliate becomes subject to the imposition of a financial penalty (which for this purpose shall mean any tax, penalty, or other liability, whether by way of indemnity or otherwise) with respect to one or more Plan or Non-U.S. Plan; and any such event or events described in clauses (i) through (viii) above, either individually or together with any other such event or events, could reasonably be expected to have a Material Adverse Effect. As used in Section 9.1(f), the terms "employee benefit plan" and "employee welfare benefit plan" shall have the respective meanings assigned to such terms in Section 3 of ERISA, the term "benefit liabilities" has the meaning specified in Section 4001 of ERISA; or

(g) Judgments. One or more judgments or decrees shall be entered against the Borrower or any Subsidiary of the Borrower involving in the aggregate for the Borrower and its Subsidiaries a liability (not paid or to the extent not covered by a reputable and solvent insurance company) and such judgments and decrees either shall be final and non-appealable or shall not be vacated, discharged or stayed or bonded pending appeal for any period of 30 consecutive days, and the aggregate amount of all such judgments equals or exceeds \$75,000,000; or

(h) Change of Control. A Change of Control shall occur; or

(i) Subsidiary Guaranty Agreement. The Subsidiary Guaranty Agreement shall cease to be in full force or effect (except in accordance with the terms thereof) as to the relevant Subsidiary Guarantor, or any Subsidiary Guarantor or Person acting by or on behalf of such Subsidiary Guarantor shall deny or disaffirm such Subsidiary Guarantor's obligations under the Subsidiary Guaranty Agreement.

SECTION 9.2 Remedies. Upon the occurrence of an Event of Default, with the consent of the Required Lenders, the Administrative Agent may, or upon the request of the Required Lenders, the Administrative Agent shall, by notice to the Borrower:

(a) Acceleration; Termination of Term Loan Facility.

(i) Terminate the Term Loan Commitments and declare the principal of and interest on the Term Loans at the time outstanding, and all other amounts owed to the Lenders and to the Administrative Agent under this Agreement or any of the other Loan Documents and all other Obligations, to be forthwith due and payable, whereupon the same shall immediately become due and payable without presentment, demand, protest or other notice of any kind, all of which are expressly waived by each Credit Party, anything in this Agreement or the other Loan Documents to the contrary notwithstanding, and terminate the Term Loan Facility; provided, that upon the occurrence of an Event of Default specified in Section 9.1(e), the Term Loan Facility shall be automatically terminated and all Obligations shall automatically become due and payable without presentment, demand, protest or other notice of any kind, all of which are expressly waived by each Credit Party, anything in this Agreement or in any other Loan Document to the contrary notwithstanding; and

(ii) exercise on behalf of the Guaranteed Creditors all of its other rights and remedies under this Agreement, the other Loan Documents and Applicable Law, in order to satisfy all of the Obligations.

(b) [Reserved].

(c) Rights of Collection. Exercise on behalf of the Lenders all of its other rights and remedies under this Agreement, the other Loan Documents and Applicable Law, in order to satisfy all of the Borrower's Obligations.

SECTION 9.3 Rights and Remedies Cumulative; Non-Waiver; etc. The enumeration of the rights and remedies of the Administrative Agent and the Lenders set forth in this Agreement is not intended to be exhaustive and the exercise by the Administrative Agent and the Lenders of any right or remedy shall not preclude the exercise of any other rights or remedies, all of which shall be cumulative, and shall be in addition to any other right or remedy given hereunder or under the other Loan Documents or that may now or hereafter exist at law or in equity or by suit or otherwise. No delay or failure to take action on the part of the Administrative Agent or any Lender in exercising any right, power or privilege shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power or privilege preclude any other or further exercise thereof or the exercise of any other right, power or privilege or shall be construed to be a waiver of any Event of Default. No course of dealing between the Borrower, the Administrative Agent and the Lenders or their respective agents or employees shall be effective to change, modify or discharge any provision of this Agreement or any of the other Loan Documents or to constitute a waiver of any Event of Default.

SECTION 9.4 Crediting of Payments and Proceeds. In the event that the Obligations have been accelerated pursuant to Section 9.2 or the Administrative Agent or any Lender has exercised any remedy set forth in this Agreement or any other Loan Document, all payments received by the Lenders upon the Obligations and all net proceeds from the enforcement of the Obligations shall be applied:

First, to payment of that portion of the Obligations constituting fees, indemnities, expenses and other amounts (other than principal and interest), including reasonable and documented attorney's fees, payable to the Administrative Agent in its capacity as such;

Second, to payment of that portion of the Obligations constituting fees, indemnities and other amounts (other than principal and interest) payable to the Lenders under the Loan Documents, including reasonable and documented attorney's fees (ratably among the Lenders in proportion to the respective amounts described in this clause Second payable to them);

Third, to payment of that portion of the Obligations constituting accrued and unpaid interest on the Term Loans (ratably among the Lenders in proportion to the respective amounts described in this clause Third payable to them);

Fourth, to payment of that portion of the Obligations constituting unpaid principal of the Term Loans; and

Last, the balance, if any, after all of the Obligations have been indefeasibly paid in full, to the Borrower or as otherwise required by Applicable Law.

SECTION 9.5 Administrative Agent May File Proofs of Claim. During any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to any Credit Party, the Administrative Agent (irrespective of whether the principal of any Term Loan shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Borrower) shall be entitled and empowered, by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Term Loans and all other Obligations arising under the Loan Documents that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Lenders and the Administrative Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders and the Administrative Agent and their respective agents and counsel and all other amounts due the Lenders and the Administrative Agent under Sections 4.3 and 11.3) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Lenders, to pay to the Administrative Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Administrative Agent and its agents and counsel, and any other amounts due the Administrative Agent under Sections 4.3 and 11.3.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Lender any plan of reorganization, arrangement, adjustment or composition affecting the Obligations or the rights of any Lender or to authorize the Administrative Agent to vote in respect of the claim of any Lender in any such proceeding.

ARTICLE X

THE ADMINISTRATIVE AGENT

SECTION 10.1 Appointment and Authority. Each of the Lenders hereby irrevocably designates and appoints JPMorgan to act on its behalf as the Administrative Agent hereunder and under the other Loan Documents and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated

to the Administrative Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this Article are solely for the benefit of the Administrative Agent and the Lenders, and neither the Borrower nor any Subsidiary thereof shall have rights as a third party beneficiary of any of such provisions.

SECTION 10.2 Rights as a Lender. The Person serving as the Administrative Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Administrative Agent and the term “Lender” or “Lenders” shall, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as the Administrative Agent hereunder in its individual capacity. Such Person and its Affiliates may accept deposits from, lend money to, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Borrower or any Subsidiary or other Affiliate thereof as if such Person were not the Administrative Agent hereunder and without any duty to account therefor to the Lenders.

SECTION 10.3 Exculpatory Provisions. The Administrative Agent shall not have any duties or obligations except those expressly set forth herein and in the other Loan Documents. Without limiting the generality of the foregoing, the Administrative Agent:

- (a) shall not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;
- (b) shall not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that the Administrative Agent is required to exercise as directed in writing by the Required Lenders (or such other number or percentage of the Lenders as shall be expressly provided for herein or in the other Loan Documents), provided that the Administrative Agent shall not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Administrative Agent to liability or that is contrary to any Loan Document or Applicable Law; and
- (c) shall not, except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and shall not be liable for the failure to disclose, any information relating to the Borrower or any of its Affiliates that is communicated to or obtained by the Person serving as the Administrative Agent or any of its Affiliates in any capacity.

The Administrative Agent shall not be liable for any action taken or not taken by it (i) with the consent or at the request of the Required Lenders (or such other number or percentage of the Lenders as shall be necessary, or as the Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Section 11.2) or (ii) in the absence of its own gross negligence or willful misconduct as determined by a court of competent jurisdiction by final nonappealable judgment. The Administrative Agent shall be deemed not to have knowledge of any Default unless and until written notice describing such Default is given to the Administrative Agent by the Borrower or a Lender.

The Administrative Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document or (v) the satisfaction of any condition set forth in Article V or elsewhere herein, other than (A) to confirm receipt of items expressly required to be delivered to the Administrative Agent and (B) with respect to any condition set forth in Article V, the satisfaction of which requires that an item be satisfactory to the Administrative Agent, to confirm whether such item is satisfactory to it.

SECTION 10.4 Reliance by the Administrative Agent. The Administrative Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Administrative Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Term Loan that by its terms must be fulfilled to the satisfaction of a Lender, the Administrative Agent may presume that such condition is satisfactory to such Lender unless the Administrative Agent shall have received notice to the contrary from such Lender prior to the making of such Term Loan. The Administrative Agent may consult with legal counsel (who may be counsel for the Borrower), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

SECTION 10.5 Delegation of Duties. The Administrative Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub agents appointed by the Administrative Agent. The Administrative Agent and any such sub agent may perform any and all of its duties and exercise its rights and powers by or through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub agent and to the Related Parties of the Administrative Agent and any such sub agent, and shall apply to their respective activities in connection with the syndication of the Facilities as well as activities as Administrative Agent.

SECTION 10.6 Resignation of Administrative Agent. Subject to the appointment and acceptance of a successor Administrative Agent as provided in this Section, the Administrative Agent may resign at any time by notifying the Lenders and the Borrower. Upon receipt of any such notice of resignation, the Required Lenders shall have the right, with the consent of the Borrower (which consent shall not be unreasonably withheld or delayed; provided, that the Borrower's consent shall not be required if an Event of Default under Section 9.1(a) or 9.1(e) then exists) to appoint a successor. If no such successor shall have been so appointed by the Required Lenders and shall have accepted such appointment within 30 days after the retiring Administrative Agent gives notice of its resignation, then the retiring Administrative Agent may on behalf of the Lenders, and with the consent of the Borrower (which consent shall not be unreasonably withheld or delayed; provided, that the Borrower's consent shall not be required if an Event of Default under Section 9.1(a) or 9.1(e) then exists), appoint a successor Administrative Agent which shall be a bank with an office in New York, New York, or an Affiliate of such bank. Upon the acceptance of a successor's appointment as Administrative Agent hereunder, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Administrative Agent, and the retiring Administrative Agent shall be discharged from all of its duties and obligations hereunder or under the other Loan Documents (if not already discharged therefrom as provided above in this paragraph). The fees payable by the Borrower to a successor Administrative Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Borrower and such successor. After the retiring Administrative Agent's resignation hereunder and under the other Loan Documents, the provisions of this Article and Section 11.3 shall continue in effect for the benefit of such retiring Administrative Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them while the retiring Administrative Agent was acting as Administrative Agent.

SECTION 10. Non-Reliance on Administrative Agent and Other Lenders. Each Lender acknowledges and agrees that the extensions of credit made hereunder are commercial loans and not investments in a business enterprise or securities. Each Lender further represents that it is engaged in making, acquiring or holding commercial loans in the ordinary course of its business and has, independently and without reliance upon the Administrative Agent, any arranger of the credit facilities evidenced by this Agreement or any other Lender and their respective Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement as a Lender, and to make, acquire or hold Term Loans hereunder. Each Lender shall, independently and without reliance upon the Administrative Agent, any arranger of the credit facilities evidenced by this Agreement or any amendment thereof or any other Lender and their respective Related Parties and based on such documents and information (which may contain material, non-public information within the meaning of the United States securities laws concerning the Borrower and its Affiliates) as it shall from time to time

deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any related agreement or any document furnished hereunder or thereunder and in deciding whether or to the extent to which it will continue as a Lender or assign or otherwise transfer its rights, interests and obligations hereunder.

SECTION 10.8 No Other Duties, etc.. Anything herein to the contrary notwithstanding, none of the syndication agents, documentation agents, co-agents, book manager, lead manager, arranger, lead arranger or co-arranger listed on the cover page or signature pages hereof shall have any powers, duties or responsibilities under this Agreement or any of the other Loan Documents, except in its capacity, as applicable, as the Administrative Agent or a Lender hereunder.

SECTION 10.9 Guaranty Matters. The Lenders irrevocably authorize the Administrative Agent, at its option and in its discretion to release any Subsidiary Guarantor from its obligations under the Subsidiary Guaranty Agreement and any other Loan Documents if such Person ceases to be a Subsidiary as a result of a transaction permitted hereunder or as otherwise permitted by the Subsidiary Guaranty Agreement. Upon request by the Administrative Agent at any time, the Required Lenders will confirm in writing the Administrative Agent's authority to release any Subsidiary Guarantor from its obligations under the Subsidiary Guaranty Agreement pursuant to this Section.

ARTICLE XI

MISCELLANEOUS

SECTION 11.1 Notices.

(a) Notices Generally. Except in the case of notices and other communications expressly permitted to be given by telephone (and except as provided in paragraph (b) below), all notices and other communications provided for herein shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by telecopier as follows:

If to the Borrower:	Owens Corning One Owens Corning Parkway Toledo, Ohio 43659 Attention: Treasurer Telephone No.: (419) 248-5482 Telecopy No.: (419) 325-1101
with copies to:	Attention: Assistant Treasurer Telephone No.: (419) 248-7380 Telecopy No.: (419) 325-3380
with copies to:	Attention: General Counsel Telephone No.: (419) 248-6350 Telecopy No.: (419) 248-6352

If to JPMorgan as
Administrative Agent: JPMorgan Chase Bank, N.A.
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

With copies to: JPMorgan Chase Bank, N.A.
383 Madison Avenue, FL 24
New York, New York 10179
Attention of: Katie Hurley
Telephone No.: (212) 270-7919
Telecopy No.: (212) 270-5100

If to any Lender: To the address set forth on the Register

Notices sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices sent by telecopier shall be deemed to have been given when sent (except that, if not given during normal business hours for the recipient, shall be deemed to have been given at the opening of business on the next business day for the recipient). Notices delivered through electronic communications to the extent provided in paragraph (b) below, shall be effective as provided in said paragraph (b).

(b) Electronic Communications. Notices and other communications to the Lenders hereunder may be delivered or furnished by electronic communication (including e-mail and Internet or intranet websites) pursuant to procedures approved by the Administrative Agent, provided that the foregoing shall not apply to notices to any Lender pursuant to Article II if such Lender has notified the Administrative Agent that it is incapable of receiving notices under such Article by electronic communication. The Administrative Agent or the Borrower may, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it, provided that approval of such procedures may be limited to particular notices or communications.

Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), provided that if such notice or other communication is not sent during the normal business hours of the recipient, such notice or communication shall be deemed to have been sent at the opening of business on the next business day for the recipient, and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor.

(c) Administrative Agent's Office. The Administrative Agent hereby designates its office located at the address set forth above, or any subsequent office which shall have been specified for such purpose by written notice to the Borrower and Lenders, as the Administrative Agent's Office referred to herein, to which payments due are to be made and at which Term Loans will be disbursed.

(d) Change of Address, Etc.. Any party hereto may change its address or telecopier number for notices and other communications hereunder by notice to the other parties hereto.

SECTION 11.2 Amendments, Waivers and Consents. Except as set forth below or as provided in Section 4.8(a)(ii) or as specifically provided in any Loan Document, any term, covenant, agreement or condition of this Agreement or any of the other Loan Documents may be amended, consented to or waived if, but only if, such

amendment, consent or waiver is in writing and is signed by the Borrower and the Required Lenders (or by the Borrower and the Administrative Agent with the consent of the Required Lenders) and delivered to the Administrative Agent; provided, that no amendment, waiver or consent shall:

(a) increase the Term Loan Commitment of any Lender (or reinstate any Term Loan Commitment terminated pursuant to Section 9.2) or the amount of Term Loans of any Lender, in any case, without the written consent of such Lender;

(b) postpone any date fixed by this Agreement or any other Loan Document for any payment of principal, interest, fees or other amounts due to the Lenders (or any of them) hereunder or under any other Loan Document, without the written consent of each Lender directly and adversely affected thereby;

(c) reduce the principal of, or the rate of interest specified herein on, any Term Loan or (subject to clause (ii) of the second proviso to this Section) any fees or other amounts payable hereunder or under any other Loan Document without the written consent of each Lender directly and adversely affected thereby; provided that (i) only the consent of the Required Lenders shall be necessary to waive any obligation of the Borrower to pay interest at the rate set forth in Section 4.1(c) during the continuance of an Event of Default and (ii) any amendment entered into pursuant to the terms of Section 4.8(a)(ii) shall not constitute a reduction in the rate of interest or fees for purposes of this clause (c);

(d) change Section 4.6 or Section 9.4 in a manner that would alter the pro rata sharing of payments or order of payments required thereby without the written consent of each Lender directly and adversely affected thereby;

(e) except as otherwise permitted by this Section 11.2 change any provision of this Section or reduce the percentages specified in the definition of "Required Lenders" or any other provision hereof specifying the number or percentage of Lenders required to amend, waive or otherwise modify any rights hereunder or make any determination or grant any consent hereunder, without the written consent of each Lender;

(f) consent to the assignment or transfer by any Credit Party of such Credit Party's rights and obligations under any Loan Document to which it is a party (except as permitted pursuant to Section 8.2), in each case, without the written consent of each Lender;

(g) [Reserved]; or

(h) release all of the Subsidiary Guarantors or Subsidiary Guarantors with assets or operations constituting substantially all of the Consolidated Net Tangible Assets or Consolidated Net Income of the Borrower and its Subsidiaries, in any case, from the Subsidiary Guaranty Agreement (other than as authorized in Section 10.9), without the written consent of each Lender;

provided further, that (i) no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent in addition to the Lenders required above, affect the rights or duties of the Administrative Agent under this Agreement or any other Loan Document; and (ii) each Fee Letter may be amended, or rights or privileges thereunder waived, in a writing executed only by the parties thereto. Notwithstanding anything to the contrary herein, no Defaulting Lender shall have any right to approve or disapprove any amendment, waiver or consent hereunder, except that (A) the Term Loan Commitment of such Lender may not be increased or extended without the consent of such Lender and (B) the maturity date of such Lender's Term Loans or other Obligations may not be extended without the consent of such Lender.

SECTION 11.3 Expenses; Indemnity.

(a) Costs and Expenses. The Borrower shall pay (i) all reasonable out of pocket expenses incurred by the Administrative Agent, the Joint Lead Arrangers and their respective Affiliates (including the reasonable fees, charges and disbursements of one primary counsel to the Administrative Agent and the Joint Lead Arrangers (and of such special and local counsel as the Administrative Agent may reasonably require and, in the case of an actual or perceived conflict of interest, one additional counsel to the affected Person), in connection with the syndication of the credit facilities provided for herein, the preparation, negotiation, execution, delivery and administration of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), and (ii) all out of pocket expenses incurred by the Administrative Agent or any Lender (including the reasonable fees, charges and disbursements of any counsel for the Administrative Agent or any Lender), in connection with the enforcement or protection of its rights (A) in connection with this Agreement and the other Loan Documents, including its rights under this Section, or (B) in connection with the Term Loans made hereunder, including all such out of pocket expenses incurred during any workout, restructuring or negotiations in respect of such Term Loans.

(b) Indemnification by the Borrower. The Borrower shall indemnify the Administrative Agent (and any sub-agent thereof), the Joint Lead Arrangers and each Lender, and each Related Party of any of the foregoing Persons (each such Person being called an "Indemnitee") against, and hold each Indemnitee harmless from, and shall pay or reimburse any such Indemnitee for, any and all losses, claims (including, without limitation, any Environmental Claims or civil penalties or fines assessed by OFAC), damages, liabilities and related expenses (including the fees, charges and disbursements of any counsel for any Indemnitee), incurred by any Indemnitee or asserted against any Indemnitee by any third party or by the Borrower or any other Credit Party arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument executed or delivered pursuant hereto or thereto, the performance by the parties hereto of their respective obligations hereunder or thereunder or the consummation of the transactions contemplated hereby or thereby, (ii) any Term Loan or the use or proposed use of the proceeds therefrom, (iii) any actual or alleged presence or Release of Hazardous Materials on or from any property owned or operated by any Credit Party or any Subsidiary thereof, or any Environmental Claim related in any way to any Credit Party or any Subsidiary, (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by any Credit Party or any Subsidiary thereof, and regardless of whether any Indemnitee is a party thereto, or (v) any claim (including, without limitation, any Environmental Claims or civil penalties or fines assessed by OFAC), investigation, litigation or other proceeding (whether or not the Administrative Agent or any Lender is a party thereto) and the prosecution and defense thereof, arising out of or in any way connected with the Term Loans, this Agreement, any other Loan Document, or any documents contemplated by or referred to herein or therein or the transactions contemplated hereby or thereby, including without limitation, reasonable and documented attorney's and consultant's fees, provided that such indemnity shall not, as to any Indemnitee, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnitee.

(c) Reimbursement by Lenders. To the extent that the Borrower for any reason fails to indefeasibly pay any amount required under clause (a) or (b) of this Section to be paid by it to the Administrative Agent (or any sub-agent thereof) or any Related Party of any of the foregoing (and without limiting the Borrower's obligation to do so), each Lender severally agrees to pay to the Administrative Agent (or any such sub-agent) or such Related Party, as the case may be, such Lender's Term Loan Percentage (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought) of such unpaid amount, provided that the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Administrative Agent (or any such sub-agent) in its capacity as such, or against any Related Party of any of the foregoing acting for the Administrative Agent (or any such sub-agent) in connection with such capacity. The obligations of the Lenders under this clause (c) are subject to the provisions of Section 4.7.

(d) Waiver of Consequential Damages, Etc. To the fullest extent permitted by Applicable Law, each of the Borrower and each other Credit Party shall not assert, and hereby waives, any claim against any Indemnitee, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument executed or delivered pursuant hereto or thereto, the transactions contemplated hereby or thereby, any Term Loan or the use of the proceeds thereof. No Indemnitee referred to in clause (b) above shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

(e) Payments. All amounts due under this Section shall be payable promptly after demand therefor.

SECTION 11.4 Right of Set Off. If an Event of Default shall have occurred and be continuing, each Lender and each of their respective Affiliates is hereby authorized at any time and from time to time, to the fullest extent permitted by Applicable Law, to set off and apply any and all deposits (general or special, time or demand, provisional or final, in whatever currency) at any time held and other obligations (in whatever currency) at any time owing by such Lender or any such Affiliate to or for the credit or the account of the Borrower or any other Credit Party against any and all of the obligations of the Borrower or such Credit Party now or hereafter existing under this Agreement or any other Loan Document to such Lender, irrespective of whether or not such Lender shall have made any demand under this Agreement or any other Loan Document and although such obligations of the Borrower or such Credit Party may be contingent or unmatured or are owed to a branch or office of such Lender different from the branch or office holding such deposit or obligated on such indebtedness. The rights of each Lender and its respective Affiliates under this Section are in addition to other rights and remedies (including other rights of setoff) that such Lender or its respective Affiliates may have. Each Lender agrees to notify the Borrower and the Administrative Agent promptly after any such setoff and application; provided that the failure to give such notice shall not affect the validity of such setoff and application.

SECTION 11.5 Governing Law; Jurisdiction, Etc.

(a) Governing Law. This Agreement and the other Loan Documents, unless expressly set forth therein, shall be governed by, construed and enforced in accordance with, the law of the State of New York (including Section 5-1401 and Section 5-1402 of the General Obligations Law of the State of New York), without reference to the conflicts or choice of law principles thereof.

(b) Submission to Jurisdiction. The Borrower irrevocably and unconditionally submits, for itself and its property, to the exclusive jurisdiction of the courts of the Supreme Court of the State of New York sitting in the Borough of Manhattan and of the United States District Court of the Southern District of New York sitting in the Borough of Manhattan, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Agreement or any other Loan Document, or for recognition or enforcement of any judgment, and each of the parties hereto irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such New York state court or, to the fullest extent permitted by Applicable Law, in such Federal court. Each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Nothing in this Agreement or in any other Loan Document shall affect any right that the Administrative Agent or any Lender may otherwise have to bring any action or proceeding relating to this Agreement or any other Loan Document against the Borrower or any other Credit Party or its properties in the courts of any jurisdiction.

(c) Waiver of Venue. The Borrower and each other Credit Party irrevocably and unconditionally waives, to the fullest extent permitted by Applicable Law, any objection that it may now or hereafter have to the laying of venue of any action or proceeding arising out of or relating to this Agreement or any other Loan

Document in any court referred to in paragraph (b) of this Section. Each of the parties hereto hereby irrevocably waives, to the fullest extent permitted by Applicable Law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

(d) Service of Process. Each party hereto irrevocably consents to service of process in the manner provided for notices in Section 11.1. Nothing in this Agreement will affect the right of any party hereto to serve process in any other manner permitted by Applicable Law.

SECTION 11.6 Waiver of Jury Trial.

(a) EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

SECTION 11.7 Reversal of Payments. To the extent any Credit Party makes a payment or payments to the Administrative Agent for the ratable benefit of the Lenders which payments or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside and/or required to be repaid to a trustee, receiver or any other party under any bankruptcy law, state or federal law, common law or equitable cause, then, to the extent of such payment repaid, the Obligations or part thereof intended to be satisfied shall be revived and continued in full force and effect as if such payment had not been received by the Administrative Agent.

SECTION 11.8 Injunctive Relief; Punitive Damages.

(a) The Borrower recognizes that, in the event the Borrower fails to perform, observe or discharge any of its obligations or liabilities under this Agreement, any remedy of law may prove to be inadequate relief to the Lenders. Therefore, the Borrower agrees that the Lenders, at the Lenders' option, shall be entitled to temporary and permanent injunctive relief in any such case without the necessity of proving actual damages.

(b) The Administrative Agent, the Lenders and the Borrower (on behalf of itself and the other Credit Parties) hereby agree that no such Person shall have a remedy of punitive or exemplary damages against any other party to a Loan Document and each such Person hereby waives any right or claim to punitive or exemplary damages that they may now have or may arise in the future in connection with any Dispute, whether such Dispute is resolved through arbitration or judicially.

SECTION 11.9 Successors and Assigns; Participations.

(a) Successors and Assigns Generally. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby, except that neither the Borrower nor any other Credit Party may assign or otherwise transfer any of its rights or obligations hereunder without the prior written consent of the Administrative Agent and each Lender and no Lender may assign or otherwise transfer any of its rights or obligations hereunder except (i) to an assignee in accordance with the provisions of paragraph (b) of this Section, (ii) by way of participation in accordance with the provisions of paragraph (d) of this Section or (iii) by way of pledge or assignment of a security interest subject to the restrictions of paragraph (f) of this Section (and any other attempted assignment or transfer by any party hereto shall be null and void). Nothing in this Agreement, expressed or implied, shall be construed

to confer upon any Person (other than the parties hereto, their respective successors and assigns permitted hereby, Participants to the extent provided in paragraph (d) of this Section and, to the extent expressly contemplated hereby, the Related Parties of each of the Administrative Agent and the Lenders) any legal or equitable right, remedy or claim under or by reason of this Agreement.

(b) Assignments by Lenders. Any Lender may at any time assign to one or more assignees all or a portion of its rights and obligations under this Agreement (including all or a portion of its Term Loan Commitment and the Term Loans at the time owing to it); provided that any such assignment shall be subject to the following conditions:

(i) Minimum Amounts.

(A) in the case of an assignment of the entire remaining amount of the assigning Lender's Term Loan Commitment and the Term Loans at the time owing to it or in the case of an assignment to a Lender, an Affiliate of a Lender or an Approved Fund, no minimum amount need be assigned; and

(B) in any case not described in paragraph (b)(i)(A) of this Section, the aggregate amount of the Term Loan Commitment (which for this purpose includes Term Loans outstanding thereunder) or, if the applicable Term Loan Commitment is not then in effect, the principal outstanding balance of the Term Loans of the assigning Lender subject to each such assignment (determined as of the date the Assignment and Assumption with respect to such assignment is delivered to the Administrative Agent or, if "Trade Date" is specified in the Assignment and Assumption, as of the Trade Date) shall not be less than \$1,000,000 unless each of the Administrative Agent and, so long as no Event of Default has occurred and is continuing, the Borrower otherwise consents (each such consent not to be unreasonably withheld or delayed); provided that the Borrower shall be deemed to have given its consent five (5) Business Days after the date written notice thereof has been delivered by the assigning Lender (through the Administrative Agent) unless such consent is expressly refused by the Borrower prior to such fifth (5th) Business Day;

(ii) Proportionate Amounts. Each partial assignment shall be made as an assignment of a proportionate part of all the assigning Lender's rights and obligations under this Agreement with respect to the Term Loan or the Term Loan Commitment assigned;

(iii) Required Consents. No consent shall be required for any assignment except to the extent required by paragraph (b)(i)(B) of this Section and, in addition:

(A) the consent of the Borrower (such consent not to be unreasonably withheld) shall be required unless (x) an Event of Default has occurred and is continuing at the time of such assignment or (y) such assignment is to a Lender, an Affiliate of a Lender or an Approved Fund; provided, that the Borrower shall be deemed to have consented to any such assignment unless it shall object thereto by written notice to the Administrative Agent within 5 Business Days after having received notice thereof; and

(B) the consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for assignments in respect of the Term Loan Facility to a Person who is not a Lender, an Affiliate of a Lender or an Approved Fund.

(iv) Assignment and Assumption. The parties to each assignment shall execute and deliver to the Administrative Agent an Assignment and Assumption, together with a processing and recordation fee of \$3,500 for each assignment (provided, that only one such fee will be payable in connection with simultaneous assignments to two or more Approved Funds by a Lender), and the assignee, if it is not a Lender, shall deliver to the Administrative Agent an Administrative Questionnaire.

(v) No Assignment to Certain Persons. No such assignment shall be made to the Borrower or any of the Borrower's Affiliates or Subsidiaries.

(vi) No Assignment to Natural Persons. No such assignment shall be made to a natural person.

Subject to acceptance and recording thereof by the Administrative Agent pursuant to paragraph (c) of this Section, from and after the Closing Date specified in each Assignment and Assumption, the assignee thereunder shall be a party to this Agreement and, to the extent of the interest assigned by such Assignment and Assumption, have the rights and obligations of a Lender under this Agreement, and the assigning Lender thereunder shall, to the extent of the interest assigned by such Assignment and Assumption, be released from its obligations under this Agreement (and, in the case of an Assignment and Assumption covering all of the assigning Lender's rights and obligations under this Agreement, such Lender shall cease to be a party hereto) but shall continue to be entitled to the benefits of Sections 4.8, 4.9, 4.10, 4.12 and 11.3 with respect to facts and circumstances occurring prior to the Closing Date of such assignment. Any assignment or transfer by a Lender of rights or obligations under this Agreement that does not comply with this paragraph shall be treated for purposes of this Agreement as a sale by such Lender of a participation in such rights and obligations in accordance with paragraph (d) of this Section.

(c) Register. The Administrative Agent, acting solely for this purpose as a non-fiduciary agent of the Borrower, shall maintain at one of its offices a copy of each Assignment and Assumption delivered to it and a register for the recordation of the names and addresses of the Lenders, and the Term Loan Commitment of, and principal amounts of (and stated interest on) the Term Loans owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive absent manifest error, and the Borrower, the Administrative Agent and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by the Borrower and any Lender (but only to the extent of entries in the Register that are applicable to such Lender), at any reasonable time and from time to time upon reasonable prior notice.

(d) Participations. Any Lender may at any time, without the consent of, or notice to, the Borrower or the Administrative Agent, sell participations to any Person (other than a natural person, the Borrower, any of the Borrower's Affiliates or Subsidiaries or those certain competitors of the Borrower set forth in that certain letter agreement delivered to the Administrative Agent by the Borrower on or prior to the Closing Date (which letter agreement shall be made available to the Lenders upon request therefor) (each, a "Participant") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of its Term Loan Commitment and/or the Term Loans owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Borrower, the Administrative Agent and the other Lenders shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement.

Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver or modification described in Section 11.2 that directly affects such Participant and could not be affected by a vote of the Required Lenders. Subject to paragraph (e) of this Section, the Borrower agrees that each Participant shall be entitled to the benefits of Sections 4.8, 4.9, 4.10 and 4.12 to the same extent as if it were a Lender and had acquired its interest by assignment pursuant to paragraph (b) of this Section. To the extent permitted by law, each Participant also shall be entitled to the benefits of Section 11.3 as though it were a Lender, provided such Participant agrees to be subject to Section 4.6 as though it were a Lender.

(e) Limitations upon Participant Rights. A Participant shall not be entitled to receive any greater payment under Sections 4.10 and 4.12 than the applicable Lender would have been entitled to receive with respect to the participation sold to such Participant, unless the sale of the participation to such Participant is made with the Borrower's prior written consent. No Participant shall be entitled to the benefits of Section 4.12 unless the Borrower is notified of the participation sold to such Participant and such Participant agrees, for the benefit of the Borrower, to comply with Section 4.12(e) as though it were a Lender.

(f) Certain Pledges. Any Lender may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Lender, including without limitation any pledge or assignment to secure obligations to a Federal Reserve Bank; provided that no such pledge or assignment shall release such Lender from any of its obligations hereunder or substitute any such pledgee or assignee for such Lender as a party hereto.

(g) Participant Register. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Borrower, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Term Loans or other obligations under the Loan Documents (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any commitments, loans, letters of credit or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such commitment, loan, letter of credit or other obligation is in registered form under Treasury Regulations Section 5f.103-1(c) and Proposed Treasury Regulations Section 1.163-5(b) (or any amended or successor version). The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary. For the avoidance of doubt, the Administrative Agent (in its capacity as Administrative Agent) shall have no responsibility for maintaining a Participant Register.

SECTION 11.10 Confidentiality. Each of the Administrative Agent and the Lenders agree to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates and to its and its Affiliates' respective partners, directors, officers, employees, agents, advisors and other representatives (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Information and instructed to keep such Information confidential), (b) to the extent requested by, or required to be disclosed to, any rating agency, or regulatory or similar authority purporting to have jurisdiction over it (including any self-regulatory authority, such as the National Association of Insurance Commissioners), (c) to the extent required by Applicable Laws or regulations or by any subpoena or similar legal process, (d) to any other party hereto, (e) in connection with (but only to the extent determined by the applicable party to be necessary or desirable to permit or facilitate) the exercise of any remedies under this Agreement or under any other Loan Document or any action or proceeding relating to this Agreement or any other Loan Document (or any Hedge Agreement with a Lender or the Administrative Agent) or the enforcement of rights hereunder or thereunder, (f) subject to an agreement containing provisions substantially the same as those of this Section, to (i) any assignee of or Participant in, or any prospective assignee of or Participant in, any of its rights or obligations under this Agreement, Participant or proposed Participant, or (ii) any actual or prospective counterparty (or its advisors) to any swap or derivative transaction relating to the Borrower and its obligations, (g) with the consent of the Borrower, (h) to Gold Sheets and other similar bank trade publications, such information to consist of deal terms and other information set forth in the Loan Documents and customarily found in such publications, (i) to the extent such Information (x) becomes publicly available other than as a result of a breach of this Section or (y) becomes available to the Administrative Agent, any Lender or any of their respective Affiliates on a nonconfidential basis from a source other than the Borrower or (j) to governmental regulatory authorities in connection with any regulatory examination of the Administrative Agent or any Lender or in accordance with the Administrative Agent's or any Lender's regulatory compliance policy if the Administrative Agent or such Lender deems necessary for the mitigation of claims by those authorities against the Administrative Agent or such Lender or any of its subsidiaries or affiliates. For purposes of this Section, "Information" means all information received from any Credit Party or any Subsidiary thereof relating to any Credit Party or any Subsidiary thereof or any of their respective businesses, other than any such information that is available to the Administrative Agent or any Lender on a nonconfidential basis prior to disclosure by any Credit Party or any Subsidiary thereof; provided that, in the case of information received from a Credit Party or any Subsidiary thereof after the date hereof, such information is clearly identified at the time of delivery as confidential. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information.

EACH LENDER ACKNOWLEDGES THAT INFORMATION AS DEFINED IN THE IMMEDIATELY PRECEDING PARAGRAPH FURNISHED TO IT PURSUANT TO THIS AGREEMENT MAY INCLUDE MATERIAL NON-PUBLIC INFORMATION CONCERNING THE CREDIT PARTIES AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES, AND CONFIRMS THAT IT HAS DEVELOPED COMPLIANCE PROCEDURES REGARDING THE USE OF MATERIAL NON-PUBLIC INFORMATION AND THAT IT WILL HANDLE SUCH MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH THOSE PROCEDURES AND APPLICABLE LAW, INCLUDING FEDERAL AND STATE SECURITIES LAWS .

ALL INFORMATION, INCLUDING REQUESTS FOR WAIVERS AND AMENDMENTS, FURNISHED BY THE BORROWER OR THE ADMINISTRATIVE AGENT PURSUANT TO, OR IN THE COURSE OF ADMINISTERING, THIS AGREEMENT WILL BE SYNDICATE-LEVEL INFORMATION, WHICH MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION ABOUT THE BORROWER, THE OTHER LOAN PARTIES AND THEIR RELATED PARTIES OR THEIR RESPECTIVE SECURITIES. ACCORDINGLY, EACH LENDER REPRESENTS TO THE BORROWER AND THE ADMINISTRATIVE AGENT THAT IT HAS IDENTIFIED IN ITS ADMINISTRATIVE QUESTIONNAIRE A CREDIT CONTACT WHO MAY RECEIVE INFORMATION THAT MAY CONTAIN MATERIAL NON-PUBLIC INFORMATION IN ACCORDANCE WITH ITS COMPLIANCE PROCEDURES AND APPLICABLE LAW .

SECTION 11.11 Performance of Duties . Each of the Credit Party's obligations under this Agreement and each of the other Loan Documents shall be performed by such Credit Party at its sole cost and expense.

SECTION 11.12 All Powers Coupled with Interest . All powers of attorney and other authorizations granted to the Lenders, the Administrative Agent and any Persons designated by the Administrative Agent or any Lender pursuant to any provisions of this Agreement or any of the other Loan Documents shall be deemed coupled with an interest and shall be irrevocable so long as any of the Obligations remain unpaid or unsatisfied, any of the Term Loan Commitments remain in effect or the Term Loan Facility has not been terminated.

SECTION 11.13 Survival .

(a) All representations and warranties set forth in Article VI and all representations and warranties contained in any certificate, or any of the Loan Documents (including, but not limited to, any such representation or warranty made in or in connection with any amendment thereto) shall constitute representations and warranties made under this Agreement. All representations and warranties made under this Agreement shall be made or deemed to be made at and as of the Closing Date (except those that are expressly made as of a specific date), shall survive the Closing Date and shall not be waived by the execution and delivery of this Agreement, any investigation made by or on behalf of the Lenders or any borrowing hereunder.

(b) Notwithstanding any termination of this Agreement, the indemnities to which the Administrative Agent and the Lenders are entitled under the provisions of this Article XI and any other provision of this Agreement and the other Loan Documents shall continue in full force and effect and shall protect the Administrative Agent and the Lenders against events arising after such termination as well as before.

SECTION 11.14 Titles and Captions . Titles and captions of Articles, Sections and subsections in, and the table of contents of, this Agreement are for convenience only, and neither limit nor amplify the provisions of this Agreement.

SECTION 11.15 Severability of Provisions . Any provision of this Agreement or any other Loan Document which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective only to the extent of such prohibition or unenforceability without invalidating the remainder of such provision or the remaining provisions hereof or thereof or affecting the validity or enforceability of such provision in any other jurisdiction.

SECTION 11.16 Counterparts; Integration; Effectiveness; Electronic Execution .

(a) Counterparts; Integration; Effectiveness. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed signature page of this Agreement by facsimile transmission, e-mail, or any other electronic means that reproduces an image of the actual executed signature page shall be effective as delivery of a manually executed counterparty hereof. The words “execution,” “signed,” “signature,” “delivery,” and words of like import in or relating to any document to be signed in connection with this Agreement and the transactions contemplated hereby or thereby shall be deemed to include Electronic Signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; provided that nothing herein shall require the Administrative Agent to accept electronic signatures in any form or format without its prior written consent. This Agreement and the other Loan Documents, and any separate letter agreements with respect to fees payable to the Administrative Agent or limitations on Participations, constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. In the event of any conflict between the provisions of this Agreement and those of any other Loan Document, the provisions of this Agreement shall control; provided that the inclusion of supplemental rights or remedies in favor of the Administrative Agent or the Lenders in any other Loan Document shall not be deemed a conflict with this Agreement. Each Loan Document was drafted with the joint participation of the respective parties thereto and shall be construed neither against nor in favor of any party, but rather in accordance with the fair meaning thereof. Except as provided in Section 5.1, this Agreement shall become effective when it shall have been executed by the Administrative Agent and when the Administrative Agent shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto.

(b) Electronic Execution of Assignments. The words “execution,” “signed,” “signature,” and words of like import in any Assignment and Assumption shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

SECTION 11.17 Term of Agreement. This Agreement shall remain in effect from the Closing Date through and including the date upon which all Obligations (other than contingent indemnification obligations not then due) arising hereunder or under any other Loan Document shall have been indefeasibly and irrevocably paid and satisfied in full and the Term Loan Commitment has been terminated (such date, the “Termination Date”). No termination of this Agreement shall affect the rights and obligations of the parties hereto arising prior to such termination or in respect of any provision of this Agreement which survives such termination.

SECTION 11.18 USA Patriot Act. The Administrative Agent and each Lender hereby notifies the Borrower that pursuant to the requirements of the Act, it is required to obtain, verify and record information that identifies the Borrower and Subsidiary Guarantors, which information includes the name and address of the Borrower and Subsidiary Guarantor and other information that will allow such Lender to identify the Borrower or Subsidiary Guarantor in accordance with the Act.

SECTION 11.19 [Reserved].

SECTION 11.20 Independent Effect. The Borrower acknowledges and agrees that each covenant contained in Articles VII, VIII, IX or X hereof shall be given independent effect. Accordingly, the Borrower shall not engage in any transaction or other act otherwise permitted under any covenant contained in Articles VII, VIII, IX or X, before

or after giving effect to such transaction or act, if the Borrower shall or would be in breach of any other covenant contained in Articles VII, VIII, IX or X.

SECTION 11.21 [Reserved].

SECTION 11.22 No Advisory or Fiduciary Responsibility. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Loan Document), the Borrower and each other Credit Party acknowledges and agrees, and acknowledges its Affiliates' understanding, that: (i) (A) the arranging and other services regarding this Agreement provided by the Administrative Agent and the Lenders are arm's-length commercial transactions between the Borrower, each other Credit Party and their respective Affiliates, on the one hand, and the Administrative Agent and the Lenders, on the other hand, (B) each of the Borrower and the other Credit Parties has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (C) the Borrower and each other Credit Party is capable of evaluating, and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby and by the other Loan Documents; (ii) (A) the Administrative Agent and the Lenders each is and has been acting solely as a principal and, except as expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for the Borrower, any other Credit Party or any of their respective Affiliates, or any other Person and (B) neither the Administrative Agent nor any Lender has any obligation to the Borrower, any other Credit Party or any of their respective Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein and in the other Loan Documents; and (iii) the Administrative Agent and the Lenders and their respective Affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Borrower, the other Credit Parties and their respective Affiliates, and neither the Administrative Agent nor any Lender has any obligation to disclose any of such interests to the Borrower, any other Credit Party or any of their respective Affiliates.

SECTION 11.23 Acknowledgement and Consent to Bail-In of EEA Financial Institutions.

Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any EEA Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the write-down and conversion powers of an EEA Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

- (a) the application of any Write-Down and Conversion Powers by an EEA Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an EEA Financial Institution; and
- (b) the effects of any Bail-In Action on any such liability, including, if applicable:
 - (i) a reduction in full or in part or cancellation of any such liability;
 - (ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such EEA Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or
 - (iii) the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of any EEA Resolution Authority.

[Signature pages to follow]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed under seal by their duly authorized officers, all as of the day and year first written above.

OWENS CORNING, as Borrower

By: /s/ Brad Lazorka
Name: Brad Lazorka
Title: Vice President and Treasurer

By: /s/ Matthew Fortunak
Name: Matthew Fortunak
Title: Assistant Treasurer

AGENTS AND LENDERS:

JPMORGAN CHASE BANK, N.A. ,
as Administrative Agent and Lender

By: /s/ Peter Predun
Name: Peter Predun
Title: Executive Director

CITIBANK, N.A. ,
as a Syndication Agent and Lender

By: /s/ Michael Vondriska
Name: Michael Vondriska
Title: Vice President

WELLS FARGO BANK, NATIONAL ASSOCIATION ,
as a Syndication Agent and Lender

By: /s/ Kay Reedy
Name: Kay Reedy
Title: Managing Director

SCHEDULE 1.1

TERM LOAN COMMITMENTS

<u>LENDER</u>	<u>TERM LOAN COMMITMENT</u>
JPMORGAN CHASE BANK, N.A.	\$100,000,000
CITIBANK, N.A.	\$100,000,000
WELLS FARGO BANK, NATIONAL ASSOCIATION	\$100,000,000
AGGREGATE TERM LOAN COMMITMENTS	\$ 300,000,000

SCHEDULE 6.9

STATUTE EXTENSIONS

State	Years open	Statute extension date
Illinois	2010-2012	June 30, 2018
Illinois	2013-2014	April 15, 2019
Michigan	2008-2010	Until agreed audit finalized or finalized through judicial system
New York: Owens Corning and Subsidiaries	2010-2013	September 15, 2018
New York: Pittsburgh Corning Corporation	2013	June 30, 2018
North Carolina	2008-2010	November 15, 2017
IRS: Pittsburgh Corning Corporation	2013	December 31, 2019
U.S. Customs and Border Protection: InterWrap Inc.	December 2008-2015	December 11, 2017
U.S. Customs and Border Protection: InterWrap Corp.	December 2008-2015	December 6, 2017
Canada: OC Canada Holdings Company	2013	

SCHEDULE 6.12**SUBSIDIARIES****DOMESTIC SUBSIDIARIES**

Subsidiary Name	Status as Subsidiary Guarantor or Immaterial Subsidiary
CDC Corporation	Guarantor
Engineered Pipe Systems, Inc.	Guarantor
Eric Company	Guarantor
InterWrap Corp.	Guarantor
IPM Inc.	Guarantor
OCV Finance, LLC	Immaterial Subsidiary
OCV Intellectual Capital, LLC	Guarantor
Owens Corning Automotive, LLC	Guarantor
Owens Corning Composite Materials, LLC	Guarantor
Owens Corning Construction Services, LLC	Guarantor
Owens Corning Elaminator Insulation Systems, LLC	Immaterial Subsidiary
Owens Corning Fabwel, LLC	Immaterial Subsidiary
Owens Corning Foam Insulation, LLC	Guarantor
Owens Corning Franchising, LLC	Guarantor
Owens Corning HOMEExperts, Inc.	Guarantor
Owens Corning HT, Inc.	Guarantor
Owens Corning Infrastructure Solutions, LLC	Immaterial Subsidiary
Owens Corning Insulating Systems, LLC	Guarantor
Owens Corning Intellectual Capital, LLC	Guarantor
Owens Corning Mineral Wool, LLC	Guarantor
Owens Corning Non-Woven Technology, LLC	Guarantor
Owens Corning Receivables LLC	Immaterial Subsidiary
Owens Corning Remodeling Systems, LLC	Immaterial Subsidiary
Owens Corning Roofing and Asphalt, LLC	Guarantor
Owens Corning Sales, LLC	Guarantor
Owens Corning Science and Technology, LLC	Guarantor
Owens Corning Sunrooms Franchising, LLC	Immaterial Subsidiary
Owens Corning Technical Fabrics, LLC	Guarantor
Owens Corning U.S. Holdings, LLC	Guarantor
Owens-Corning Funding Corporation	Guarantor
Pittsburgh Corning Corporation	Guarantor
Soltech, Inc.	Guarantor
TF Holding Corp.	Immaterial Subsidiary
Thermafiber, Inc.	Guarantor

FOREIGN SUBSIDIARIES

0979301 B.C. ULC

Crown Mfg. Inc.

Deutsche FOAMGLAS GmbH

Dutch OC Coöperatief Invest U.A.

European Owens Corning Fiberglas SPRL
Finefiber (Shanghai) Building Material Co. Ltd.
Finefiber Insulation Co. Pte. Ltd.
FOAMGLAS (Italia) SRL
FOAMGLAS (Nordic) AB
IBCO SRL
Instalaciones Especializadas en Confort Termoacustico y Ampliacion, S. de R.L. de C.V.
International Packaging Products Pvt. Ltd.
InterWrap (Hong Kong) Ltd.
InterWrap (Qingdao) Trading Co. Ltd.
InterWrap B.V.
InterWrap Coöperatief U.A.
InterWrap Corp. Pvt. Ltd.
InterWrap ULC
Inversiones Owens Corning Chile Holdings Limitada
IP Owens Corning I, S. de R.L. de C.V.
OC Canada Finance Inc.
OC Canada Holdings General Partnership
OC Celfortec Company
OC Latin American Holdings GmbH
OC NL Invest Coöperatief U.A.
OC PRO CV
OCCV1, Inc.
OCCV2, LLC
OCV (Thailand) Co., Ltd.
OCV Chambéry France
OCV Chambéry International
OCV Italia Srl
OCV Mexico S. de R.L. de C.V.
OCV Reinforcements Alcala Spain S.L.
OCV Servicios Mexico, S.A. de C.V.
OCV Steklovolokno OAO
Owens Corning (Australia) Pty Limited
Owens Corning (China) Investment Company Limited
Owens Corning (Guangzhou) Fiberglas Co., Ltd.
Owens Corning (Nanjing) Building Materials Co., Ltd.
Owens Corning (Shanghai) Fiberglas Co. Ltd.
Owens Corning (Singapore) Pte Ltd
Owens Corning (Tianjin) Building Materials Co. Ltd.
Owens Corning (Xi'an) Building Materials Co., Ltd.
Owens Corning Alloy Canada GP Inc.
Owens Corning Alloy Canada LP
Owens Corning Argentina Sociedad de Responsabilidad Limitada
Owens Corning BM (Korea), Ltd
Owens Corning Canada GP Inc.
Owens Corning Canada Holdings B.V.
Owens Corning Canada Holdings ULC
Owens Corning Canada LP
Owens Corning Cayman (China) Holdings
Owens Corning Celfortec Canada GP Inc.
Owens Corning Celfortec LP
Owens Corning Composite Materials Canada GP Inc.
Owens Corning Composite Materials Canada LP

Owens Corning Composites (Beijing) Co., Ltd.
Owens Corning Composites (China) Co., Ltd.
Owens Corning DC Pension Plan Limited
Owens Corning Enterprise (India) Pvt. Ltd.
Owens Corning Fabrics (Changzhou) Co., Ltd.
Owens Corning Fiberglas (UK) Pension Plan Ltd.
Owens Corning Fiberglas A.S. Limitada
Owens Corning Fiberglas Espana SL
Owens Corning Fiberglas France
Owens Corning Fiberglas S.R.L.
Owens Corning Financial Services ULC
Owens Corning Finland Oy
Owens Corning GlassMetal Services (Suzhou) Co., Ltd.
Owens Corning Global Holdings LP
Owens Corning Holdings 1 CV
Owens Corning Holdings 3 CV
Owens Corning Holdings 4 CV
Owens Corning Holdings 5 CV
Owens Corning Holdings Holland B.V.
Owens Corning Hong Kong Limited
Owens Corning Industries (India) Private Limited
Owens Corning Insulating Systems Canada GP Inc.
Owens Corning Insulating Systems Canada LP
Owens Corning International Holdings C.V.
Owens Corning InterWrap Canada GP Inc.
Owens Corning InterWrap Canada LP
Owens Corning Japan LLC
Owens Corning Kohold B.V.
Owens Corning Korea
Owens Corning Mexico, S. de R.L. de C.V.
Owens Corning Reinforcements (Hangzhou) Co., Ltd.
Owens Corning Remodeling Canada GP Inc.
Owens Corning Remodeling Canada LP
Owens Corning Supplementary Pension Plan Limited
Owens-Corning (India) Private Limited
Owens-Corning Britinvest Limited
Owens-Corning Cayman Limited
Owens-Corning Fiberglas Deutschland GmbH
Owens-Corning Veil Netherlands B.V.
Owens-Corning Veil U.K. Ltd.
Pittsburgh Corning (United Kingdom) Limited
Pittsburgh Corning (Yantai) Insulation Materials Co. Ltd.
Pittsburgh Corning Asia Limited
Pittsburgh Corning CR, s.r.o.
Pittsburgh Corning Europe N.V.
Pittsburgh Corning France
Pittsburgh Corning Gesellschaft mbh
Pittsburgh Corning Mexico S. de R.L. de C.V.
Pittsburgh Corning Nederland BV
Pittsburgh Corning Singapore PTE Ltd.
Pittsburgh Corning Suisse SA
Qingdao Novia Polymer Co., Ltd.
Tecnologia Owens Corning I, S. de R.L. de C.V.

SCHEDULE 6.18

SCHEDULED EXISTING INDEBTEDNESS

Senior Notes :

Description	Holder	Currency	Principal Amount (as of Closing Date)
4.2% Senior Notes (2022)	Owens Corning	USD	\$600,000,000
4.2% Senior Notes (2024)	Owens Corning	USD	\$400,000,000
3.4% Senior Notes (2026)	Owens Corning	USD	\$400,000,000
7.0% Senior Notes (2036)	Owens Corning	USD	\$410,001,000
4.30% Senior Notes (2047)	Owens Corning	USD	\$600,000,000

The Senior Notes are guaranteed by the following Subsidiaries as of the Closing Date:

CDC Corporation
Engineered Pipe Systems, Inc.
Eric Company
InterWrap Corp.
IPM Inc.
OCV Intellectual Capital, LLC
Owens Corning Automotive, LLC
Owens Corning Composite Materials, LLC
Owens Corning Construction Services, LLC
Owens Corning Foam Insulation, LLC
Owens Corning Franchising, LLC
Owens Corning HOMEexperts, Inc.
Owens Corning HT, Inc.
Owens Corning Insulating Systems, LLC
Owens Corning Intellectual Capital, LLC
Owens Corning Mineral Wool, LLC
Owens Corning Non-Woven Technology, LLC
Owens Corning Roofing and Asphalt, LLC
Owens Corning Sales, LLC
Owens Corning Science and Technology, LLC
Owens Corning Technical Fabrics, LLC
Owens Corning U.S. Holdings, LLC
Owens-Corning Funding Corporation
Pittsburgh Corning Corporation
Soltech, Inc.
Thermafiber, Inc.

SCHEDULE 8.1
EXISTING LIENS

None.

EXHIBIT A
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF TERM LOAN NOTE

TERM LOAN NOTE

_____, 20__

FOR VALUE RECEIVED, the undersigned, OWENS CORNING, a Delaware corporation (the “Borrower”), promises to pay to _____ (the “Lender”), at the place and times provided in the Term Loan Agreement referred to below, the principal amount of each Term Loan made by the Lender from time to time pursuant to that certain 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among the Borrower, the lenders who are or may become a party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

The unpaid principal amount of this Term Loan from time to time outstanding is subject to mandatory repayment from time to time as provided in the Term Loan Agreement and shall bear interest as provided in Section 4.1 of the Term Loan Agreement. All payments of principal and interest on this Term Loan Note shall be payable in Dollars in immediately available funds to the account designated in the most recent Notice of Account Designation delivered to the Administrative Agent pursuant to Section 3.2 of the Term Loan Agreement.

This Term Loan Note is entitled to the benefits of, and evidences Obligations incurred under, the Term Loan Agreement, to which reference is made for a statement of the terms and conditions on which the Borrower is permitted and required to make prepayments and repayments of principal of the Obligations evidenced by this Term Loan Note and on which such Obligations may be declared to be immediately due and payable.

THIS TERM LOAN NOTE SHALL BE GOVERNED BY, CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK (INCLUDING SECTION 5-1401 AND SECTION 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK), WITHOUT REFERENCE TO THE CONFLICTS OR CHOICE OF LAW PRINCIPLES THEREOF.

The Borrower hereby waives all requirements as to diligence, presentment, demand of payment, protest and (except as required by the Term Loan Agreement) notice of any kind with respect to this Term Loan Note.

IN WITNESS WHEREOF, the undersigned has executed this Term Loan Note as of the day and year first above written.

OWENS CORNING

By:
Name:
Title:

EXHIBIT B
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF BORROWING

NOTICE OF BORROWING

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

This irrevocable Notice of Borrowing is delivered to you pursuant to Section 3.2 of the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among Owens Corning, a Delaware corporation (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. The Borrower hereby requests that the Lenders make the Term Loan to the Borrower in the amount of \$ _____. (Complete with the applicable amount in accordance with Section 3.2 of the Term Loan Agreement.)

2. The Borrower hereby requests that such Term Loan be made on the following Business Day: _____. (Complete with a Business Day in accordance with Section 3.2 of the Term Loan Agreement).

3. The Borrower hereby requests that such Term Loan bear interest at the following interest rate, plus the Applicable Margin, as set forth below:

Component
of Term Loan

Interest Rate

Interest Period (LIBOR
Rate only)

[Base Rate or LIBOR Rate]

4. The aggregate Dollar amount of the principal amount of all Term Loans and Obligations outstanding as of the date hereof (including the Term Loan requested herein) does not exceed the maximum amount permitted to be outstanding, pursuant to the terms of the Term Loan Agreement.

5. All of the conditions applicable to the Term Loan requested herein as set forth in the Term Loan Agreement have been satisfied or waived as of the date hereof and will remain satisfied or waived to the date of such Term Loan.

6. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Notice of Borrowing as of the day and year first written above.

OWENS CORNING

By:
Name:
Title:

EXHIBIT C
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF ACCOUNT DESIGNATION

NOTICE OF ACCOUNT DESIGNATION

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

This Notice of Account Designation is delivered to you pursuant to Section 3.2 of the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among Owens Corning, a Delaware corporation (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. The Administrative Agent is hereby authorized to disburse Term Loan proceeds to the Borrower into the applicable account set forth on the attached Schedule 1.
2. This authorization shall remain in effect until revoked or until a subsequent Notice of Account Designation is provided to the Administrative Agent.
3. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Notice of Account Designation as of the day and year first written above.

OWENS CORNING

By:
Name:
Title:

Schedule 1
to
Notice of Account Designation

<u>Bank Name</u>	<u>ABA Routing Number</u>	<u>Account Number</u>	<u>Bank Location</u>

EXHIBIT D

to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF PREPAYMENT

2
NAI-1502690585v2

NOTICE OF PREPAYMENT

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

The undersigned, Owens Corning, a Delaware corporation (the “Borrower”), provides an irrevocable Notice of Prepayment delivered to you pursuant to Section 3.4 of the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among the Borrower, the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. The Borrower hereby provides notice to the Administrative Agent that it shall repay [the following portion of the Term Loan which is a Base Rate Loan: \$ _____] [and/or] [the following portion of the Term Loan which is a LIBOR Rate Loan: \$ _____]. (Complete with the applicable amount(s) in accordance with Section 3.4 of the Term Loan Agreement.)

2. The Borrower shall repay the above-referenced portion of the Term Loan on the following Business Day: _____.
(Complete with a date no earlier than (i) the same Business Day as of the date of this Notice of Prepayment with respect to prepayment of the portion of the Term Loan which is a Base Rate Loan and (ii) at least three (3) Business Days subsequent to the date of this Notice of Prepayment with respect to prepayment of the portion of the Term Loan which is a LIBOR Rate Loan).

3. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Notice of Prepayment as of the day and year first written above.

OWENS CORNING

By:
Name:
Title:

EXHIBIT E
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF NOTICE OF CONVERSION/CONTINUATION

3

NOTICE OF CONVERSION/CONTINUATION

Dated as of: _____

JPMorgan Chase Bank, N.A.,
as Administrative Agent
500 Stanton Christiana Road
NCC5 / 1st Floor
Newark, Delaware 19713-2107
Attention of: Michelle Keesee
Telephone No.: (302) 634-1920
Telecopy No.: (302) 634-4733

Ladies and Gentlemen:

This irrevocable Notice of Conversion/Continuation (this “Notice”) is delivered to you pursuant to Section 4.2 of the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), by and among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

1. This Notice is submitted for the purpose of: (Check one and complete applicable information in accordance with the Term Loan Agreement.)

Converting all or a portion of a Base Rate Loan into a LIBOR Rate Loan.

- (a) The aggregate outstanding principal balance of such Base Rate Loan is \$ _____.
- (b) The principal amount of such Base Rate Loan to be converted is \$ _____.
-

(c) The requested effective date of the conversion of such Base Rate Loan is _____.
(Complete with a Business Day.)

(d) The requested Interest Period applicable to the converted LIBOR Rate Loan is _____.

Converting a portion of LIBOR Rate Loan into a Base Rate Loan.

(a) The aggregate outstanding principal balance of such LIBOR Rate Loan is \$ _____.

(b) The last day of the current Interest Period for such LIBOR Rate Loan is _____.

(c) The principal amount of such LIBOR Rate Loan to be converted is \$ _____.

(d) The requested effective date of the conversion of such LIBOR Rate Loan is _____.
(Complete with a Business Day.)

Continuing all or a portion of a LIBOR Rate Loan as a LIBOR Rate Loan.

(a) The aggregate outstanding principal balance of such LIBOR Rate Loan is \$ _____.

(b) The last day of the current Interest Period for such LIBOR Rate Loan is _____.

(c) The principal amount of such LIBOR Rate Loan to be continued is \$ _____.

(d) The requested effective date of the continuation of such LIBOR Rate Loan is _____.
(Complete with a Business Day.)

(e) The requested Interest Period applicable to the continued LIBOR Rate Loan is _____.

2. All of the conditions applicable to the conversion or continuation of the Term Loan requested herein as set forth in the Term Loan Agreement have been satisfied or waived as of the date hereof and will remain satisfied or waived to the date of such conversion or continuation.

3. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has executed this Notice of Conversion/Continuation as of the day and year first written above.

OWENS CORNING

By:

Name:

Title:

EXHIBIT F
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF OFFICER'S COMPLIANCE CERTIFICATE

OFFICER'S COMPLIANCE CERTIFICATE

The undersigned, on behalf of OWENS CORNING, a corporation organized under the laws of Delaware (the "Borrower"), hereby certifies to the Administrative Agent and the Lenders, each as defined in the Term Loan Agreement referred to below, as follows:

1. This certificate is delivered to you pursuant to Section 7.1(d) of the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, restated, supplemented or otherwise modified from time to time, the "Term Loan Agreement"), by and among the Borrower, the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent. Capitalized terms used herein and not defined herein shall have the meanings assigned thereto in the Term Loan Agreement.

2. I have reviewed the financial statements of the Borrower and its Subsidiaries dated as of _____ and for the _____ period[s] then ended and such statements fairly present in all material respects in accordance with U.S. GAAP the financial condition of the Borrower and its Subsidiaries as of the dates indicated and the results of their operations and cash flows for the period[s] indicated.

3. I have reviewed the terms of the Term Loan Agreement, and the related Loan Documents and have made, or caused to be made under my supervision, a review in reasonable detail of the transactions and the condition of the Borrower and its Subsidiaries during the accounting period covered by the financial statements referred to in Paragraph 2 above. Such review has not disclosed the existence during or at the end of such accounting period of any condition or event that constitutes a Default or an Event of Default, nor do I have any knowledge of the existence of any such condition or event as of the date of this certificate [except, if such condition or event existed or exists, describe the nature, extent and period of existence thereof and what action the Borrower has taken, is taking and proposes to take with respect thereto]

4. To the best of my knowledge, the Borrower and its Subsidiaries are in compliance with the financial covenants contained in Sections 8.7 and 8.8 of the Term Loan Agreement as shown on such Schedule 1 and the Borrower and its Subsidiaries are in compliance with the other covenants and restrictions contained in the Term Loan Agreement.

[Signature Page Follows]

WITNESS the following signature as of the day and year first written above.

OWENS CORNING

By:
Name:

Title: [Chief Financial Officer / Treasurer / other
financial officer (including Controller)]

Schedule 1
to
Officer's Compliance Certificate

This Schedule 1 is attached to and made a part of an Officer's Compliance Certificate dated as of _____, ____ (the "Computation Date") and pertains to the period from _____, ____ to _____, ____ (the "Test Period"). Section references herein relate to sections of the Term Loan Agreement.

Ratio of Consolidated EBITDA to Consolidated Interest Expense, Section 8.7

- a. Consolidated EBITDA for the Test Period Attach hereto in reasonable detail the calculations required to arrive at Consolidated EBITDA for the Test Period. \$ _____
- b. Consolidated Interest Expense for the Test Period Attach hereto in reasonable detail the calculations required to arrive at Consolidated Interest Expense for the Test Period. \$ _____
- c. Ratio of Consolidated EBITDA to Consolidated Interest Expense (ratio of a to b) _____ : 1.00
- d. Minimum permitted ratio 2.25:1.00

Ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization, Section 8.8

- a. Consolidated Total Indebtedness as at the Computation Date Attach hereto in reasonable detail the calculations required to arrive at Consolidated Total Indebtedness on the Computation Date. \$ _____
- b. Consolidated Total Capitalization as at the Computation Date Attach hereto in reasonable detail the calculations required to arrive at Consolidated Total Capitalization on the Computation Date; provided, that Consolidated Net Worth used in calculating Consolidated Total Capitalization shall be adjusted in accordance with Section 8.8. \$ _____
- c. Ratio of Consolidated Total Indebtedness to Consolidated Total Capitalization (ratio of a to b) _____ : 1.00
- d. Maximum permitted ratio 0.60:1.00

EXHIBIT G

to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF ASSIGNMENT AND ASSUMPTION

ASSIGNMENT AND ASSUMPTION

This Assignment and Assumption (the “Assignment and Assumption”) is dated as of the Effective Date set forth below and is entered into by and between [INSERT NAME OF ASSIGNOR] (the “Assignor”) and [the] [each] For bracketed language here and elsewhere in this form relating to the Assignee(s), if the assignment is to a single Assignee, choose the first bracketed language. If the assignment is to multiple Assignees, choose the second bracketed language. Assignee identified on the Schedules hereto (each, an “Assignee”). [It is understood and agreed that the rights and obligations of the Assignees hereunder are several and not joint.] Include bracketed language if there are multiple Assignees. Capitalized terms used but not defined herein shall have the meanings given to them in the Term Loan Agreement identified below (as amended, restated, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), receipt of a copy of which is hereby acknowledged by [the] [each] Assignee. The Standard Terms and Conditions set forth in Annex 1 attached hereto are hereby agreed to and incorporated herein by reference and made a part of this Assignment and Assumption as if set forth herein in full.

For an agreed consideration, the Assignor hereby irrevocably sells and assigns to [the Assignee] [the respective Assignees] , and [the] [each] Assignee hereby irrevocably purchases and assumes from the Assignor, subject to and in accordance with the Standard Terms and Conditions and the Term Loan Agreement, as of the Effective Date inserted by the Administrative Agent as contemplated below, (i) all of the Assignor’s rights and obligations in its capacity as a Lender under the Term Loan Agreement and any other documents or instruments delivered pursuant thereto to the extent related to the amount and percentage interest identified below of all of such outstanding rights and obligations of the Assignor under the respective facilities identified below (including, without limitation, any guarantees included in such facilities) and (ii) to the extent permitted to be assigned under applicable law, all claims, suits, causes of action and any other right of the Assignor (in its capacity as a Lender) against any Person, whether known or unknown, arising under or in connection with the Term Loan Agreement, any other documents or instruments delivered pursuant thereto or the loan transactions governed thereby or in any way based on or related to any of the foregoing, including, but not limited to, contract claims, tort claims, malpractice claims, statutory claims and all other claims at law or in equity related to the rights and obligations sold and assigned pursuant to clause (i) above (the rights and obligations sold and assigned to [the] [any] Assignee pursuant to clauses (i) and (ii) above being referred to herein collectively as [the] [an] “Assigned Interest”). Each such sale and assignment is without recourse to the Assignor and, except as expressly provided in this Assignment and Assumption, without representation or warranty by the Assignor.

1. Assignor: [INSERT NAME OF ASSIGNOR]
 2. Assignee(s): [INSERT NAME OF ASSIGNEE(S)]
 3. Borrower: Owens Corning
-

4. Administrative Agent: JPMorgan Chase Bank, N.A., as the Administrative Agent under the Term Loan Agreement
5. Term Loan Agreement: The 364-Day Term Loan Agreement, dated as of October 27, 2017, among Owens Corning, as Borrower, the Lenders parties thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent (as amended, restated, supplemented or otherwise modified)
6. Assigned Interest: *See Schedules attached hereto*
- [7. Trade Date: _____] To be completed if the Assignor and the Assignee(s) intend that the minimum assignment amount is to be determined as of the Trade Date.

[Remainder of Page Intentionally Left Blank]

Effective Date: _____, 20__ [TO BE INSERTED BY THE ADMINISTRATIVE AGENT AND WHICH SHALL BE THE EFFECTIVE DATE OF RECORDATION OF TRANSFER IN THE REGISTER THEREFOR.]

[The] [Each] Assignee agrees to deliver to the Administrative Agent a completed Administrative Questionnaire in which [the] [such] Assignee designates one or more credit contacts to whom all syndicate-level information (which may contain material non-public information about the Borrower and its Related Parties or their respective securities) will be made available and who may receive such information in accordance with the [applicable] Assignee's compliance procedures and applicable laws, including federal and state securities laws.

The terms set forth in this Assignment and Assumption are hereby agreed to:

ASSIGNOR
[NAME OF ASSIGNOR]

By: _____
Title:

ASSIGNEE[S]

[NAME OF ASSIGNEE] Add additional signature blocks, as needed.
[an Affiliate/Approved Fund of [*identify Lender*] Select as applicable .]

By: _____
Title:

[Consented to and] To be added only if the consent of the Administrative Agent is required by the terms of the Term Loan Agreement. Accepted:

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent

By _____
Title:

[Consented to:] To be added only if the consent of the Borrower is required by the terms of the Term Loan Agreement.

OWENS CORNING

By _____
Title:

SCHEDULE 1
To Assignment and Assumption

Assigned Interests:

Assignor	Assignee(s)	Facility Assigned	Aggregate Amount of Commitment/ Term Loans for all Lenders Amount to be adjusted by the counterparties to take into account any payments or prepayments made between the Trade Date and the Effective Date.	Amount of Commitment/ Term Loans Assigned Amount to be adjusted by the counterparties to take into account any payments or prepayments made between the Trade Date and the Effective Date.	Percentage Assigned of Commitment/ Term Loans Set forth, to at least 9 decimals, as a percentage of the Commitment/Term Loans of all Lenders thereunder.	CUSIP Number
		Term Loan Facility	\$	\$	%	

ANNEX 1

to Assignment and Assumption

STANDARD TERMS AND CONDITIONS FOR
ASSIGNMENT AND ASSUMPTION

1. Representations and Warranties.

(1) 1.1 Assignor. The Assignor (a) represents and warrants that (i) it is the legal and beneficial owner of the Assigned Interest, (ii) the Assigned Interest is free and clear of any lien, encumbrance or other adverse claim, (iii) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and (iv) it is not a Defaulting Lender; and (b) assumes no responsibility with respect to (i) any statements, warranties or representations made in or in connection with the Term Loan Agreement or any other Loan Document, (ii) the execution, legality, validity, enforceability, genuineness, sufficiency or value of the Loan Documents or any collateral thereunder, (iii) the financial condition of the Borrower, any of its Subsidiaries or Affiliates or any other Person obligated in respect of any Loan Document or (iv) the performance or observance by the Borrower, any of its Subsidiaries or Affiliates or any other Person of any of their respective obligations under any Loan Document.

1.2. Assignee [s]. [The] [Each] Assignee (a) represents and warrants that (i) it has full power and authority, and has taken all action necessary, to execute and deliver this Assignment and Assumption and to consummate the transactions contemplated hereby and to become a Lender under the Term Loan Agreement, (ii) it meets all the requirements to be an assignee under Section 11.9(b) of the Term Loan Agreement (subject to such consents, if any, as may be required thereunder), (iii) from and after the Effective Date, it shall be bound by the provisions of the Term Loan Agreement as a Lender thereunder and, to the extent of [the] [the relevant] Assigned Interest, shall have the obligations of a Lender thereunder, (iv) it is sophisticated with respect to decisions to acquire assets of the type represented by the Assigned Interest and either it, or the Person exercising discretion in making its decision to acquire the Assigned Interest, is experienced in acquiring assets of such type, (v) it has received a copy of the Term Loan Agreement, and has received or has been accorded the opportunity to receive copies of the most recent financial statements delivered pursuant to Section 7.1 thereof, as applicable, and such other documents and information as it deems appropriate to make its own credit analysis and decision to enter into this Assignment and Assumption and to purchase [the] [such] Assigned Interest, (vi) it has, independently and without reliance upon the Administrative Agent, any arranger of the credit facilities evidenced by the Term Loan Agreement or any other Lender and their respective Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Assignment and Assumption and to purchase [the] [such] Assigned Interest, (vii) attached to the Assignment and Assumption is any documentation required to be delivered by it pursuant to the terms of the Term Loan Agreement, duly completed and executed by [the] [such] Assignee and (viii) it is a Non-Public Lender; and (b) agrees that (i) it will, independently and without reliance on the Administrative Agent, any arranger of the credit facilities evidenced by the Term Loan Agreement, the Assignor or any other Lender and their respective Related Parties, and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Loan Documents, and (ii) it will perform in accordance with their terms all of the obligations which by the terms of the Loan Documents are required to be performed by it as a Lender.

2. Payments. From and after the Effective Date, the Administrative Agent shall make all payments in respect of [the] [each] Assigned Interest (including payments of principal, interest, fees and other amounts) to the Assignor for amounts which have accrued to but excluding the Effective Date and to [the] [the relevant] Assignee for amounts which have accrued from and after the Effective Date.

3. General Provisions. This Assignment and Assumption shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. This Assignment and Assumption may be executed in any number of counterparts, which together shall constitute one instrument. Delivery of an executed counterpart of a signature page of this Assignment and Assumption by telecopy shall be effective as delivery of a manually executed counterpart of this Assignment and Assumption. This Assignment and Assumption shall be governed by, construed

and enforced in accordance with, the law of the State of New York (including Section 5-1401 and Section 5-1402 of the General Obligations Law of the State of New York) without reference to the conflicts or choice of law principles thereof.

EXHIBIT H
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF SUBSIDIARY GUARANTY AGREEMENT

SUBSIDIARY GUARANTY AGREEMENT

EXHIBIT I
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

[Reserved]

EXHIBIT J
to
364-Day Term Loan Agreement
dated as of October 27, 2017
by and among
Owens Corning,
as Borrower,
the Lenders party thereto,
as Lenders,
and
JPMorgan Chase Bank, N.A.,
as Administrative Agent

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

EXHIBIT J-1

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Term Loan(s) (as well as any Term Loan Note(s) evidencing such Term Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20__

EXHIBIT J-2

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Not Partnerships

For U.S. Federal Income Tax Purposes)

Reference is hereby made to the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form W-8BEN or IRS Form W-8BEN-E, as applicable. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20__

EXHIBIT J-3

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the “Term Loan Agreement”), among Owens Corning (the “Borrower”), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan

agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: _____, 20__

EXHIBIT J-4

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the 364-Day Term Loan Agreement, dated as of October 27, 2017 (as amended, supplemented or otherwise modified from time to time, the "Term Loan Agreement"), among Owens Corning (the "Borrower"), the lenders who are or may become party thereto, as Lenders, and JPMorgan Chase Bank, N.A., as Administrative Agent.

Pursuant to the provisions of Section 4.12(e) of the Term Loan Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Term Loan(s) (as well as any Term Loan Note(s) evidencing such Term Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Term Loan(s) (as well as any Term Loan Note(s) evidencing such Term Loan(s)), (iii) with respect to the extension of credit pursuant to this Term Loan Agreement, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 881(c)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Administrative Agent and the Borrower with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN or an IRS Form W-8BEN-E, as applicable, from each of such partner's/

member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent, and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Term Loan Agreement and used herein shall have the meanings given to them in the Term Loan Agreement.

[NAME OF LENDER]

By: _____

Name:

Title:

Date: _____, 20__

Subsidiaries of Owens Corning (12/31/2017)

0979301 B.C. ULC
CDC Corporation
Crown Mfg. Inc.
Deutsche Foamglas GmbH
Dutch OC Coöperatief Invest U.A.
Engineered Pipe Systems, Inc.
Eric Company
European Owens Corning Fiberglas SPRL
Finefiber (Shanghai) Building Material Co. Ltd.
Finefiber Insulation Co. Pte. Ltd.
Foamglas (Italia) SRL
Foamglas (Nordic) AB
IBCO SRL
Instalaciones Especializadas en Confort Termoacustico y Ampliacion,
S. de R.L. de C.V.
International Packaging Products Pvt. Ltd.
InterWrap (Hong Kong) Ltd.
InterWrap (Qingdao) Trading Co., Ltd.
InterWrap Corp.
InterWrap Corp. Pvt. Ltd.
Inversiones Owens Corning Chile Holdings Limitada
IP Owens Corning I, S. de R.L. de C.V.
IPM Inc.
OC Canada Finance Inc.
Owens Corning Canada Holdings ULC
OC Canada Holdings General Partnership
OC Celfortec Company
OC Latin American Holdings GmbH
OC NL Invest Coöperatief U.A.
OC PRO CV
OCCV1, Inc.
OCCV2, LLC
OCV (Thailand) Co. Limited
OCV Chambéry France
OCV Chambéry International
OCV Finance, LLC
OCV Intellectual Capital, LLC
OCV Italia Srl
OCV Mexico S. de R.L. de C.V.
OCV Reinforcements Alcala Spain, S.L.

**State or Other Jurisdiction Under the
Laws of Which Organized**

British Columbia
Wisconsin
Ontario
Germany
The Netherlands
Delaware
Delaware
Belgium
China
Singapore
Italy
Sweden
Barbados

Mexico
India
Hong Kong
China
Oregon
India
Chile
Mexico
Delaware
Canada
British Columbia
Delaware
Nova Scotia
Austria
The Netherlands
The Netherlands
Delaware
Delaware
Thailand
France
France
Delaware
Delaware
Italy
Mexico
Spain

OCV Servicios Mexico, S.A. de C.V.	Mexico
OCV Steklovolokno OAO	Russia
Owens Corning (Australia) Pty Limited	Australia
Owens Corning (China) Investment Company Limited	China
Owens Corning (Guangzhou) Fiberglas Co., Ltd.	China
Owens Corning (Nanjing) Building Materials Co., Ltd.	China
Owens Corning (Shanghai) Fiberglas Co., Ltd.	China
Owens Corning (Singapore) Pte Ltd	Singapore
Owens Corning (Tianjin) Building Materials Co., Ltd.	China
Owens Corning (Xi'an) Building Materials Co., Ltd.	China
Owens Corning Alloy Canada GP Inc.	Canada
Owens Corning Alloy Canada LP	Manitoba
Owens Corning Argentina Sociedad de Responsabilidad Limitada	Argentina
Owens Corning Automotive, LLC	Delaware
Owens Corning BM (Korea), Ltd	Korea
Owens-Corning Britinvest Limited	United Kingdom
Owens Corning Canada GP Inc.	Canada
Owens Corning Canada Holdings B.V.	The Netherlands
Owens Corning Canada LP	Manitoba
Owens Corning Cayman (China) Holdings	Cayman Islands
Owens-Corning Cayman Limited	Cayman Islands
Owens Corning Celfortec Canada GP Inc.	Canada
Owens Corning Celfortec LP	Manitoba
Owens Corning Composite Materials Canada GP Inc.	Nova Scotia
Owens Corning Composite Materials Canada LP	Manitoba
Owens Corning Composite Materials, LLC	Delaware
Owens Corning Composites (Beijing) Co., Ltd.	China
Owens Corning Composites (China) Co., Ltd.	China
Owens Corning Construction Services, LLC	Delaware
Owens Corning DC Pension Plan Limited (In Liquidation)	United Kingdom
Owens Corning Elaminator Insulation Systems, LLC	Delaware
Owens Corning Enterprise (India) Pvt. Ltd.	India
Owens Corning Fabrics (Changzhou) Co., Ltd.	China
Owens Corning Fabwel, LLC	Delaware
Owens Corning Fiberglas (U.K.) Pension Plan Ltd.	United Kingdom
Owens Corning Fiberglas A.S. Limitada	Brazil
Owens-Corning Fiberglas Deutschland GmbH	Germany
Owens Corning Fiberglas Espana, SL	Spain
Owens Corning Fiberglas France	France
Owens Corning Financial Services ULC	Nova Scotia
Owens Corning Finland Oy	Finland
Owens Corning Foam Insulation, LLC	Delaware
Owens Corning Franchising, LLC	Delaware

Owens-Corning Funding Corporation	Delaware
Owens Corning GlassMetal Services (Suzhou) Co., Ltd.	China
Owens Corning Global Holdings LP	British Columbia
Owens Corning Holdings 1 CV	The Netherlands
Owens Corning Holdings 3 CV	The Netherlands
Owens Corning Holdings 4 CV	The Netherlands
Owens Corning Holdings 5 CV	The Netherlands
Owens Corning Holdings Holland B.V.	The Netherlands
Owens Corning HOMEExperts, Inc.	Delaware
Owens Corning Hong Kong Limited	Hong Kong
Owens Corning HT, Inc.	Delaware
Owens-Corning (India) Private Limited	India
Owens Corning Industries (India) Private Limited	India
Owens Corning Infrastructure Solutions, LLC (created 05-25-17)	Delaware
Owens Corning Insulating Systems, LLC	Delaware
Owens Corning Insulating Systems Canada GP Inc.	Canada
Owens Corning Insulating Systems Canada LP	Manitoba
Owens Corning Intellectual Capital, LLC	Delaware
Owens Corning International Holdings C.V.	The Netherlands
Owens Corning InterWrap Canada GP Inc.	Ontario
Owens Corning InterWrap Canada LP	Manitoba
Owens Corning Japan, LLC	Japan
Owens Corning Kohold B.V.	The Netherlands
Owens Corning Korea	Korea
Owens Corning Mexico, S. de R.L. de C.V.	Mexico
Owens Corning Mineral Wool, LLC	Delaware
Owens Corning Non-Woven Technology, LLC	Delaware
Owens Corning Receivables LLC	Delaware
Owens Corning Reinforcements (Hangzhou) Co., Ltd.	China
Owens Corning Remodeling Canada GP Inc.	Canada
Owens Corning Remodeling Canada LP	Manitoba
Owens Corning Remodeling Systems, LLC	Delaware
Owens Corning Roofing and Asphalt, LLC	Delaware
Owens Corning Sales, LLC	Delaware
Owens Corning Science and Technology, LLC	Delaware
Owens Corning Sunrooms Franchising, LLC	Delaware
Owens Corning Supplementary Pension Plan Limited	United Kingdom
Owens Corning Technical Fabrics, LLC	Delaware
Owens Corning U.S. Holdings, LLC	Delaware
Owens-Corning Veil Netherlands B.V.	The Netherlands
Owens-Corning Veil U.K. Ltd.	United Kingdom
Pittsburgh Corning (United Kingdom) Limited	United Kingdom
Pittsburgh Corning (Yantai) Insulation Materials Co., Ltd	China

Pittsburgh Corning Asia Limited
Pittsburgh Corning Corporation
Pittsburgh Corning CR, S.R.O.
Pittsburgh Corning Europe N.V.
Pittsburgh Corning France
Pittsburgh Corning Gesellschaft m.b.h.
Pittsburgh Corning Nederland B.V.
Pittsburgh Corning Singapore Pte., Ltd
Pittsburgh Corning Suisse SA
Qingdao Novia Polymer Co., Ltd.
Soltech, Inc.
Tecnologia Owens Corning I, S. de R.L. de C.V.
TF Holding Corp.
Thermafiber, Inc.
Transandina de Comercio S.A.

Hong Kong
Pittsburgh
Czech Republic
Belgium
France
Austria
The Netherlands
Singapore
Switzerland
China
Kentucky
Mexico
Delaware
Delaware
Chile

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (No. 333-222514) and Form S-8 (Nos. 333-210939, 333-188091, 333-166347, 333-150771, 333-150770, and 333-138392) of Owens Corning of our report dated February 21, 2018 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/PricewaterhouseCoopers LLP
Toledo, Ohio
February 21, 2018

CERTIFICATION

I, Michael H. Thaman, certify that:

1. I have reviewed this annual report on Form 10-K of Owens Corning;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2018

/s/ Michael H. Thaman
Michael H. Thaman
Chief Executive Officer

CERTIFICATION

I, Michael C. McMurray, certify that:

1. I have reviewed this annual report on Form 10-K of Owens Corning;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2018

/s/ Michael C. McMurray
Michael C. McMurray
Chief Financial Officer

SECTION 1350 CERTIFICATION

In connection with the Annual Report on Form 10-K of Owens Corning (the "Company") for the fiscal year ended December 31, 2017 (the "Report"), I, Michael H. Thaman, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) Information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Michael H. Thaman
Michael H. Thaman
Chief Executive Officer

February 21, 2018

SECTION 1350 CERTIFICATION

In connection with the Annual Report on Form 10-K of Owens Corning (the "Company") for the fiscal year ended December 31, 2017 (the "Report"), I, Michael C. McMurray, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) Information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Michael C. McMurray
Michael C. McMurray
Chief Financial Officer

February 21, 2018