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, 2019

or

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

Commission file number 1-12084

Libbey Inc.

(Exact name of registrant as specified in its charter)

Delaware	**34-1559357**
(State or other jurisdiction of incorporation or organization)	*(IRS Employer Identification No.)*

300 Madison Avenue, Toledo, Ohio 43604
(Address of principal executive offices) (Zip Code)
419-325-2100
(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $.01 par value	LBY	NYSE American

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 Section 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 every Interactive Data File required to be submitted 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 such files). Yes ☑ No ☐

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.

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 Exchange Act). Yes ☐ No ☑

The aggregate market value (based on the consolidated tape closing price on June 30, 2019) of the voting stock beneficially held by non-affiliates of the registrant was approximately $40,800,424. For the sole purpose of making this calculation, the term "non-affiliate" has been interpreted to exclude directors and executive officers of the registrant. Such interpretation is not intended to be, and should not be construed to be, an admission by the registrant or such directors or executive officers that any such persons are "affiliates" of the registrant, as that term is defined under the Securities Act of 1934.

The number of shares of common stock, $.01 par value, of the registrant outstanding as of February 20, 2020 was 22,361,002.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required by Items 10, 11, 12, 13 and 14 of Form 10-K is incorporated by reference into Part III hereof from the registrant's Proxy Statement for the Annual Meeting of Shareholders to be held May 13, 2020 ("Proxy Statement").

Certain information required by Part II of this Form 10-K is incorporated by reference from registrant's 2019 Annual Report to Shareholders where indicated.

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This Annual Report on Form 10-K, including "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains forward-looking statements regarding future events and future results that are subject to the safe harbors created under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended. Libbey desires to take advantage of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements are based on current expectations, estimates, forecasts and projections, and the beliefs and assumptions of our management. Words such as "expect," "anticipate," "target," "believe," "intend," "may," "planned," "potential," "should," "will," "would," variations of such words, and similar expressions are intended to identify these forward-looking statements. In addition, any statements that refer to projections of our future financial performance, our anticipated growth and trends in our businesses, and other characterizations of future events or circumstances are forward-looking statements. Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. We undertake no obligation to revise or update any forward-looking statements for any reason.

PART I

Item 1. Business

General

Libbey Inc. (Libbey or the Company) is a global leader in the design, production and sale of tableware and other products. We manufacture glass tableware and other glass products at our two plants in the United States as well as our plants located in Mexico (Libbey Mexico), the Netherlands (Libbey Holland), Portugal (Libbey Portugal) and China (Libbey China). We believe that our glass tableware manufacturing, distribution and service network is the largest in the Western Hemisphere and is among the largest in the world. We also source glass tableware, ceramic dinnerware, metal flatware, buffetware and other products globally. We sell our products in more than 100 countries across the globe. Our extensive line of tabletop and other products are sold globally under the Libbey®, Libbey Signature®, Master's Reserve®, World® Tableware, Syracuse® China, Crisa®, Royal Leerdam®, Crisal Glass® and other brand names primarily in the foodservice, retail and business-to-business channels. See note 19 to the Consolidated Financial Statements for segment and geographic information.

Libbey has a rich heritage that spans over 200 years. We were originally founded as the New England Glass Company in 1818. Operations were moved to Toledo, Ohio, in 1888, and the Company was incorporated in Delaware in 1987.

Our website can be found at www.libbey.com. We make available, free of charge, at this website all of our reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, including our annual report on Form 10-K, our quarterly reports on Form 10-Q and our current reports on Form 8-K, as well as amendments to those reports. These reports are made available on our website as soon as reasonably practicable after their filing with, or furnishing to, the Securities and Exchange Commission and can also be found at www.sec.gov.

Our shares are traded on the NYSE American exchange under the ticker symbol LBY.

Strategic Initiatives

Our strategy is focused on the following three key areas:

- Profitable Growth including innovative new products and leveraging our world class digital and e-commerce capabilities;
- Operational Excellence through best-in-class service, asset optimization and continuous improvement; and
- Organizational Excellence that develops our talent and culture to the level required to create sustainable value.

In order to improve our capabilities to drive growth through innovation, we have developed a strong marketing organization to drive enhanced market insight and have established improved new product development capabilities.

In the U.S. and Canada we believe we have competitive advantages, including leading market share and best-in-class service in the foodservice, retail and business-to-business channels. We expect to extend these advantages by enhancing customer focus and introducing differentiated new products as we seek to increase our share in existing product categories, such as ceramicware and metalware, and to expand our presence in the healthcare and hospitality segments of the foodservice channel. We are also an established supplier in the regions of Latin America; Europe, the Middle East and Africa (EMEA); and Asia Pacific. We expect these areas to benefit from our enhanced customer focus, new products and adjacencies tailored to increase share.

We made significant investments in 2017 to establish new capabilities to support e-commerce in our retail channel in the U.S. In 2018, we established our internal e-commerce team so that we can scale the business at a reduced cost, and in 2019 we extended our digital platform to support customers in our foodservice channel with the launch of our foodservice website in December 2019. In addition, we have made good progress on our business transformation to simplify and improve capabilities across many areas of the business, led by the start of a new enterprise resource planning system.

In 2019, our consolidated manufacturing footprint and new electrical substation in Portugal provided both operational benefits and reduced energy costs. In addition, we have implemented an enhanced inspection and repair process to further extend asset lives, resulting in more time between furnace rebuilds and a reduction in depreciation expense. In the United States, we upgraded our laser edge technology at our Shreveport manufacturing facility, resulting in more efficient operations. As a glass manufacturer, we have a capital-intensive business, with investments in our furnaces being long-term in nature. Over time, we will continue to seek opportunities to optimize our global manufacturing footprint in order to serve profitable sectors of our markets. We intend to continue to invest in technologies that can extend the useful lives of some assets to deliver improved overall returns.

We continue on our mission to become more market driven as we seek to become one of the most innovative tabletop companies. In 2020, we intend to continue to create momentum executing on our growth and operational and organizational excellence strategies.

Products

Our products include glassware products that we produce at our six manufacturing facilities, as well as glass tableware, ceramicware, metalware, handmade glass tableware and other tabletop products that we source globally. Glass tableware products include products such as tumblers, stemware, mugs, bowls, shot glasses, canisters, candleholders and other items. Other glass products include candle jars, vases, storageware, serveware, bakeware and components such as blender jars and mixing bowls sold to original equipment manufacturers (OEMs). We also offer a wide range of ceramic dinnerware products. These include plates, bowls, platters, cups, saucers and other tabletop accessories. In addition, we offer an extensive selection of metal flatware, including knives, forks, spoons and serving utensils.

In recent years, we have invested in proprietary ClearFire® technology at our Shreveport, Louisiana, facility to manufacture premium glass tableware suitable for fine dining, household and consumer use. We sell these products in the foodservice channel under the Master's Reserve® brand and in retail under the Libbey Signature® brand.

We have developed a complete premium tabletop offering called the Artistry Collection™ that is targeted to serve fine dining establishments and event venues in the foodservice channel. It combines our Master's Reserve® brand glassware with our Master's Gauge® flatware and other leading brands of fine tabletop products sourced through the following exclusive distribution agreements:

- Spiegelau® and Nachtmann® glassware and serveware products in the U.S. foodservice channel. Spiegelau® is known for its fine stemware and other drinkware assortments. Nachtmann® offers a variety of upscale serveware, decorative products, stemware and drinkware for finer dining establishments.

- Schönwald dinnerware products in the U.S. and Canada. Schönwald is one of the world's leading providers of high-end porcelain and bone china for foodservice.

- Assheuer + Pott GmbH & Co. KG (APS®) serveware and buffetware products in the U.S. and Canada foodservice channel. APS is one of Europe's largest suppliers of premium buffet and tabletop products tailored specifically for the hospitality and catering industries.

Customers

We believe that our regional market segment organization allows us to better understand and serve our customers' needs.

In the U.S. and Canada, customers for our tableware products include over 320 traditional and web-based foodservice distributors in the United States and Canada who sell primarily to restaurants, bars, hotels and other foodservice venues. In retail, we sell to mass merchants, department stores, pure play e-commerce retailers or marketers, retail distributors, national retail chains and specialty housewares stores. Additionally, in the business-to-business channel, we sell to a variety of customers, including companies using glass in candle, floral and other OEM applications.

In Latin America, we sell to retail customers including mass merchants, wholesale distributors and in outlet stores; to a wide variety of business-to-business customers who use glass products in promotions, catalogues, candles, food packing and various OEM uses; and to foodservice distributors.

In EMEA, we sell glass tableware to retailers, distributors and decorators that service the retail, foodservice and business-to-business channels, including large breweries and distilleries that decorate products with company logos for promotional and resale purposes.

We also sell glass tableware products in the Asia Pacific region primarily to distributors.

No single customer accounts for 10 percent or more of our sales, although the loss of any of our major customers could have a meaningful impact on us.

Competition

The markets for our products are highly competitive in all our geographic segments. Our competitors include other glass tableware manufacturers, including large multinational companies such as Arc International (a French company) and Paşabahçe (a unit of Şişecam Holdings, a Turkish company), Anchor Hocking (a U.S. company), AnHui DeLi Glassware Co., Ltd. (a Chinese company), Vicrila Industrias del Vidrio S.L.U. - VICRILA (a Spanish company) and various other manufacturers throughout the world; ceramic dinnerware and metalware manufacturers throughout the world, including Oneida Hospitality Group, Steelite and others; and a variety of sourcing or marketing companies. In addition, other products such as plastic and melamine compete with our glass and ceramic tabletop products. We believe our principal competitive advantages are our installed base, customer service, price, product quality, new product development, brand name, responsiveness, delivery time and breadth of product offerings.

Throughout 2019 we continued to experience softer global demand and broad scale industry overcapacity among glass tableware manufacturers. In the U.S., the relative strength of the dollar versus other world currencies has improved the ease with which foreign manufacturers can sell products into the U.S. at competitive prices.

Sales, Marketing and Distribution

In 2019, approximately 78 percent of our sales were to customers located in North America (U.S., Canada and Mexico), and approximately 22 percent of our sales were to customers in other countries. We sell our products in over 100 countries around the world. We employ our own sales force to call on customers and distributors. In addition, we occasionally retain the services of manufacturer's representative organizations to assist in selling our products. We have marketing staff located at our corporate headquarters in Toledo, Ohio, and in our Columbus, Ohio office, as well as in Mexico, Portugal, the Netherlands and China.

We operate distribution centers at or near each of our manufacturing facilities (see "Properties" below). In addition, we operate a distribution center in Laredo, Texas, and one in West Chicago, Illinois, and we have contracts with third-party logistics providers to service a portion of our direct-to-consumer e-commerce business. Our warehouse and distribution centers are strategically located to enable us to supply significant quantities of our product to customers on a timely and cost-effective basis.

The majority of our sales are in the foodservice, retail and business-to-business channels, which are further detailed below.

Foodservice

We have, according to our estimates, the leading market share in glass tableware sales in the U.S. and Canadian foodservice channel, placing us among the leading glass tableware suppliers around the globe. A majority of our sales of tabletop products to foodservice establishments are made through a network of foodservice distributors. Our strong foodservice distributor network and in-house sales force provide broad coverage of a wide variety of foodservice establishments, including restaurants, bars, hotels and other travel and tourism venues. We have seen a change over the past few years, with more customers in the U.S. and Canada turning to web-based distribution, particularly when ordering replacement products after the original installation. We are leveraging our digital and e-commerce experience and capabilities developed in the retail channel to help our foodservice distribution customers adapt to this changing environment and meet this demand. In 2019, we developed our new foodservice website to provide end users and distributors quicker visibility of our products. In addition, we have added more sales people in 2019 to focus on our target markets including the healthcare industry (with a particular focus on the senior living segment of that industry) and hospitality.

Retail

Our primary customers in the retail channel include mass merchants, specialty housewares stores, pure play e-commerce retailers and value-oriented retailers in the U.S. and around the globe. Management estimates that we maintain a leading share of the U.S. retail market for glass beverageware. We believe that our established relationships with major retailers, particularly in the U.S. & Canada, Latin America and EMEA regions, position us to successfully introduce differentiated new retail products to pursue increased share and profitability. We also operate outlet stores in the U.S., Mexico and Portugal and make sales via internet retailers.

Business-to-Business

We supply glass tableware to the business-to-business channel of distribution. Our customers for products sold in the business-to-business channel in the U.S. & Canada and Latin America include drink companies and custom decorators of glassware for promotional purposes and resale, as well as products for candle and floral applications. In addition, Latin America sells blender jars and various OEM products in this channel. The craft industries and gourmet food-packing companies are also among our business-to-business glassware customers. In Europe, our customers in the business-to-business channel include marketers who decorate our glassware with company logos and resell these products to large breweries and distilleries, which redistribute the glassware for promotional purposes and resale.

Seasonality

Our sales and operating income tend to be stronger in the last three quarters of each year and weaker in the first quarter of each year, primarily due to the impact of consumer buying patterns and production activity. This seasonal pattern causes accounts receivable to be higher in the second half of the year and lower during the first half of the year.

We typically build inventory during the first half of the year to allow for optimal customer service and timely delivery in the second half of the year, a higher demand period when orders may exceed short-term production capabilities. We also build inventory to service customers during periods of planned downtime for furnace rebuilds or maintenance, as well as to maintain an appropriate level of safety stock of items that we source primarily from the Asia Pacific region and that, as a result, require longer lead times. Accounts payable do not generally fluctuate significantly on a seasonal basis.

Although little information with respect to our competitors is publicly available, we believe that our experience with working capital is generally consistent with the experience of the industry as a whole.

Manufacturing and Sourcing

In North America, we currently own and operate three glass tableware manufacturing plants, two of which are located in the United States (one in Toledo, Ohio, and one in Shreveport, Louisiana) and one of which is located in Monterrey, Mexico. In Europe, we own and operate two glass tableware manufacturing plants, one in Leerdam, the Netherlands, and the other in Marinha Grande, Portugal. In Asia, we own and operate a glass tableware production facility in Langfang, China.

The manufacturing of our tableware products involves the use of automated processes and technologies, as well as manual production. We design much of our glass tableware production machinery, and we continuously refine it to incorporate technological advances. We believe that our production machinery and equipment will continue to be adequate for our needs for the foreseeable future, but we continue to invest to further improve our products, gain production efficiencies and reduce our cost profile.

Our glass tableware products generally are produced using one of two manufacturing methods, commonly referred to as “blown” or “ pressed”. In the case of certain stemware, we may use a combination of these methods. Most of our tumblers, stemware and other glass tableware products are “blown”, meaning that they are produced by forming molten glass in molds with the use of compressed air. Our other glass tableware products and the stems of certain stemware are “pressed”, meaning that they are produced by pressing molten glass into the desired product shape.

To assist in the manufacturing process, we employ a team of engineers whose responsibilities include efforts to improve and upgrade our manufacturing facilities, equipment and processes. In addition, they provide engineering required to manufacture new products and implement the large number of innovative changes continuously being made to our product designs, sizes and shapes. See “Research and Development” below for additional information.

Ceramic dinnerware and metal flatware are sourced primarily from the Asia Pacific region.

Materials

Our primary materials are sand, lime, soda ash, corrugated packaging and colorants. However, there may be temporary shortages of certain materials due to weather or other factors, including disruptions in supply caused by material transportation or production delays. Such shortages have not had, and are not expected in the future to have, a material adverse effect on our operations. Natural gas and electricity are the primary sources of energy in our production processes, and periodic variability in the price for these utilities has had and could continue to have an impact on our profitability. Historically, we have used natural gas hedging for a portion of our expected purchases to partially mitigate this impact in North America and Europe. We also experience fluctuations in the freight cost to deliver materials due primarily to the cost of diesel fuel and trucking capacity, and such changes may affect our earnings and cash flow.

Research and Development

Our research and development efforts focus on developing new, differentiated and innovative products to meet customers' and consumers' needs. Our product development efforts begin with consumer insights, and we have been investing to strengthen these capabilities. Our focus is to improve the quality of our products and develop innovative new consumer solutions and product offerings that enhance the profitability of our business through research and development, including adjacent technology, safety and risk mitigation techniques. We will continue to invest in strategic research and development projects that we expect will further enhance our ability to compete in our core business.

In addition, our core competencies include our glass engineering excellence and world-class manufacturing development techniques. We employ a team of engineers, in addition to external consultants and university collaboration studies in sciences, to conduct research and development.

Patents, Trademarks and Licenses

Based upon market research and surveys, we believe that our trade names and trademarks, as well as our product shapes and styles, enjoy a high degree of consumer recognition and are valuable assets. We believe that the Libbey®, Libbey Signature®, Master's Reserve®, Master's Gauge®, Syracuse® China, World® Tableware, Crisa®, Royal Leerdam® and Crisal Glass® trade names and trademarks are material to our business.

We have rights under a number of patents that relate to a variety of products and processes. However, we do not consider that any patent or group of patents relating to a particular product or process is of material importance to our business as a whole.

Environmental Matters

Our operations, in common with those of the industry generally, are subject to numerous existing laws and governmental regulations designed to protect the environment, particularly regarding plant waste, emissions and solid waste disposal and remediation of contaminated sites. We believe that we are in material compliance with applicable environmental laws, and we are not aware of any regulatory initiatives that we expect will have a material effect on our products or operations. See " Risk Factors - *We are subject to various environmental legal requirements and may be subject to new legal requirements in the future; these requirements could have a material adverse effect on our operations*." See also note 17, " Contingencies," to our Consolidated Financial Statements included in Part II, Item 8 of this Annual Report for further information regarding environmental matters with respect to which we may have liability.

Although we continue to modify our manufacturing processes and technologies in an effort to reduce our emissions and increase energy efficiency, capital expenditures for property, plant and equipment specifically for environmental control purposes were not material during 2019 or 2018 and are not expected to be material in 2020.

Employees

We employed 5,872 persons at December 31, 2019. Approximately 70 percent of our employees are employed outside the U.S. The majority of our employees are paid hourly and covered by collective bargaining agreements. The total number of employees under a collective bargaining agreement expiring within one year is approximately 56 percent of Libbey's total workforce. Our collective bargaining agreement with our unionized employees in the Netherlands is scheduled to expire on June 30, 2020; our collective bargaining agreement with our unionized employees in Shreveport, Louisiana, is scheduled to expire on December 15, 2020; and our collective bargaining agreements with our unionized employees in Toledo, Ohio, are scheduled to expire on September 30, 2022. Under our collective bargaining agreements covering our unionized employees in Mexico, we negotiate wages annually and negotiate benefits every other year. In Portugal and China, we have no written collective bargaining agreement with our unionized employees, but there are consultations with the unions on various matters, including annual negotiations regarding wages. We believe that our relations with our employees are good.

Item 1A. Risk Factors

The following factors are the most significant factors that can impact year-to-year comparisons and may affect the future performance of our businesses. New risks may emerge, and management cannot predict those risks or estimate the extent to which they may affect our financial performance.

Financial Risks

Our ability to obtain adequate financing or raise capital in the future may be limited.

Our ABL Facility matures on December 7, 2022 (or January 9, 2021, if our Senior Secured Term Loan B is not refinanced by that date) and our Senior Secured Term Loan B matures on April 9, 2021. If we cannot refinance the foregoing indebtedness upon their respective maturities or, more generally, obtain funding when needed, in each case on acceptable terms, we may be unable to continue to fund our capital requirements, which may have an adverse effect on our business, financial condition and results of operations.

Our level of debt may limit our operating and financial flexibility.

As of December 31, 2019, we had $393.2 million aggregate principal amount of debt outstanding. Although our ABL Facility credit agreement and Term Loan B Senior Secured Credit Agreement generally do not contain financial covenants, the credit agreements contain other covenants that limit our operational and financial flexibility, such as by:

- limiting the additional indebtedness that we may incur;
- limiting certain business activities, investments and payments, and
- limiting our ability to dispose of certain assets.

These covenants may limit our ability to engage in activities that may be in our long-term best interests.

In addition, our levels of indebtedness could:

- limit our ability to withstand business and economic downturns and/or place us at a competitive disadvantage compared to our competitors that have less debt, because of the high percentage of our operating cash flow that is dedicated to servicing our debt;
- limit our ability to make capital investments in order to expand our business;
- limit our ability to invest operating cash flow in our business and future business opportunities, because we use a substantial portion of these funds to service debt and because our covenants restrict the amount of our investments;
- limit our ability to obtain additional debt or equity financing for working capital, capital expenditures, product development, debt service requirements, acquisitions or other purposes;
- make it more difficult for us to satisfy our financial obligations;
- limit our ability to pay dividends;
- limit our ability to attract and retain talent; and
- limit our ability to obtain additional financing in sufficient amounts and/or on acceptable terms in the near future or when our debt obligations reach maturity. Our ABL Facility matures on December 7, 2022 (or January 9, 2021, if our Senior Secured Term Loan B is not refinanced by that date) and our Senior Secured Term Loan B matures on April 9, 2021.

If cash generated from operations is insufficient to satisfy our liquidity requirements, if we cannot service our debt, or if we fail to meet our covenants, we could have substantial liquidity problems. In those circumstances, we might be unable to make share repurchases and we might be forced to sell assets, delay planned investments, obtain additional equity capital or restructure our debt. Depending on the circumstances at the time, we may not be able to accomplish any of these actions on favorable terms or at all.

In addition, our failure to comply with the covenants contained in our loan agreements could result in an event of default that, if not cured or waived, could result in the acceleration of all of our indebtedness.

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, including our financial strength and business risk as well as transparency with rating agencies and timeliness of financial reporting. In November 2019, Standard & Poor's downgraded our corporate credit rating from B to B- and lowered the issue-level rating on our Term Loan B from B to B-, with a revised recovery rating from 2 to 3, in each case with a stable outlook. In addition, Moody's Investor Service lowered our corporate family rating and Term Loan B from B2 to B3, with a stable outlook. These and potential further downgrades to our debt ratings could result in increased interest and other expenses on future borrowings and limit our ability to refinance our existing debt on acceptable terms or at all. Downgrades in our debt rating could also restrict our access to capital markets.

Our variable rate indebtedness subjects us to interest rate risk that could cause our debt service obligations to increase significantly.

Borrowings under our Senior Secured Term Loan B are at variable rates of interest and expose us to interest rate risk. Although we have entered into forward interest-rate swaps to fix the interest rate on a portion of our Senior Secured Term Loan B, if interest rates were to increase, our debt service obligations on the variable rate indebtedness would increase even if the amount borrowed were to remain the same. As a result, our net income and cash flows would decrease.

Our business requires significant capital investment and maintenance expenditures that we may be unable to fulfill.

Our operations are capital intensive, requiring us to maintain a large fixed cost base. Our total cash paid for capital expenditures were $31.2 million and $45.1 million for the years ended December 31, 2019 and 2018, respectively.

Our business may not generate sufficient operating cash flow and external financing sources may not be available in an amount sufficient to enable us to make anticipated capital expenditures.

If we are unable to control or pass on to our customers increases in key input costs, including the cost of raw materials, sourced products, utilities, packaging and freight, the profitability of our business may be materially and adversely affected.

Sand, soda ash, lime and corrugated packaging materials are the principal materials we use to make our products. We also rely heavily on natural gas, electricity, water and other utilities. In addition, we obtain glass tableware, ceramic dinnerware and metal flatware from third parties. Increases in the costs of these commodities or products may result from inflationary pressures as well as temporary shortages due to disruptions in supply caused by weather, transportation, production delays or other factors. If we experience shortages in commodities or sourced products, we may be forced to procure them from alternative suppliers, and we may not be able to do so on terms as favorable as our current terms or at all.

In addition, the cost of U.S. dollar-denominated purchases (including for raw materials) for our operations in the euro zone, Mexico and China may increase due to appreciation of the U.S. dollar against the euro, the Mexican peso or the Chinese renminbi, respectively.

If we are unsuccessful in managing our costs or in passing cost increases through to our customers through increased prices, our financial condition and results of operations may be materially and adversely affected.

The profitability of our business may be materially and adversely impacted if we are unable to fully absorb the high levels of fixed costs associated with our business.

The high levels of fixed costs of operating glass production plants encourage high levels of output, even during periods of reduced demand, which can lead to excess inventory levels and exacerbate the pressure on profit margins. In addition, significant portions of our selling, general and administrative expenses are fixed costs that neither increase nor decrease proportionately with sales. Our profitability is dependent, in part, on our ability to spread fixed costs over an increasing number of products sold and shipped, and if we reduce our rate of production our costs per unit increase, negatively impacting our gross margins. Decreased demand or the need to reduce inventories can lead to capacity adjustments that reduce our ability to absorb fixed costs and, as a result, may materially impact our profitability.

Fluctuation of the currencies in which we conduct operations could adversely affect our financial condition, results of operations and cash flows.

Our reporting currency is the U.S. dollar. A significant portion of our net sales, costs, assets and liabilities are denominated in currencies other than the U.S. dollar, primarily the euro, the Mexican peso, the Chinese renminbi and the Canadian dollar. In our Consolidated Financial Statements, we translate local currency financial results into U.S. dollars based on the exchange rates prevailing during the reporting period. During times of a strengthening U.S. dollar, the reported revenues and earnings of our international operations will be reduced because the local currencies will translate into fewer U.S. dollars. This could have a material adverse effect on our financial condition, results of operations and cash flow.

In addition, changes in the value, relative to the U.S. dollar, of the various currencies in which we conduct operations, including the euro, the Mexican peso and the Chinese renminbi, may result in significant changes in the indebtedness of our non-U.S. subsidiaries.

If we have an asset impairment in a business segment, our net earnings and net worth could be materially and adversely affected by a write-down of goodwill, intangible assets, fixed assets or right-of-use assets.

We have recorded a significant amount of goodwill, which represents the excess of cost over the fair value of the net assets of the business acquired; other identifiable intangible assets, including trademarks and trade names; and fixed assets and right-of-use assets. Impairment of goodwill, identifiable intangible assets, fixed assets or right-of-use assets may result from, among other things, deterioration in our performance, adverse market conditions, adverse changes in applicable laws or regulations, including changes that restrict the activities of or affect the products sold by our business, and a variety of other factors. Under U.S. GAAP, we are required to charge the amount of any impairment immediately to operating income.

We conduct an impairment analysis at least annually related to goodwill and other indefinite lived intangible assets. This analysis requires management to make significant judgments and estimates, primarily regarding expected financial performance, expected growth rates, and discount rates, identifying similar companies with comparable business factors and assessing comparable multiples. We determine expected financial performance and growth rates based on internally developed forecasts considering our future financial plans. We estimate the discount rate used based on an analysis of comparable company weighted average costs of capital that consider market assumptions obtained from independent sources. We identify similar companies with comparable business factors such as size, growth, profitability, risk and return on investment. We identify comparable multiples that we feel are most relevant to Libbey. The estimates that management uses in this analysis could be materially impacted by factors such as specific industry conditions, changes in cash flow from operations and changes in growth trends. In addition, the assumptions management uses are management's best estimates based on projected results and market conditions as of the date of testing. Significant changes in these key assumptions could result in indicators of impairment when completing the annual impairment analysis. We assess our fixed assets for possible impairment whenever events or changes in circumstances indicate that the carrying value of these assets may not be recoverable. We remain subject to future financial statement risk in the event that goodwill, other identifiable intangible assets, fixed assets or right-of-use assets become impaired. For further discussion of key assumptions in our critical accounting estimates, see "Management's Discussion and Analysis of Financial Condition and Results of Operations-Critical Accounting Estimates."

In the second quarter of 2019, we recorded a $46.0 million non-cash goodwill impairment charge in the Mexico reporting unit of our Latin America reporting segment. Also during the second quarter of 2019, we recorded a non-cash impairment charge of $0.9 million related to Libbey Holland's indefinite life intangible asset (Royal Leerdam® trade name) in our EMEA reporting segment. For further information regarding these goodwill and indefinite life intangible asset impairments see note 4, Purchased Intangible Assets and Goodwill, to our Consolidated Financial Statements.

In the fourth quarter of 2019, we recorded a non-cash impairment charge of $18.3 million within the Holland asset group (within our EMEA reporting segment) resulting in a write down of the value of the property, plant and equipment and operating lease right-of-use assets. For further information regarding these long-lived asset impairments see note 5, Property, Plant and Equipment, and note 15, Leases, to our Consolidated Financial Statements.

The results of our October 1, 2019 annual impairment test indicated the estimated fair value of our reporting unit (within the U.S. & Canada reporting segment) that has goodwill exceeded the carrying value by approximately 50 percent. As of December 31, 2019, we had goodwill and other identifiable intangible assets of $50.3 million, net fixed assets of $233.9 million and right-of-use assets of $54.7 million. There can be no assurance that we will not record further impairment charges that may adversely impact our net earnings and net worth.

Uncertainty relating to the LIBOR calculation process and potential phasing out of LIBOR after 2021 may adversely affect the market value of our current or future debt obligations, including under our ABL Facility credit agreement and our Term Loan B Senior Secured Credit Agreement and our interest rate swaps.

We have a substantial amount of variable-rate debt and interest rate swaps indexed to LIBOR, and we may be adversely affected upon the transition away from LIBOR after 2021. On July 27, 2017, the U.K. Financial Conduct Authority announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021. As a result, LIBOR may be discontinued by 2021. As a response to the phase out of LIBOR, the Federal Reserve Board and the Federal Reserve Bank of New York organized the Alternative Reference Rates Committee (“ARRC”), which identified the Secured Overnight Financing Rate (“SOFR”) as its preferred alternative to U.S. dollar-LIBOR in derivatives and other financial contracts. We are not able to predict when LIBOR will cease to be available or when there will be sufficient liquidity in the SOFR markets. At this time, it is impossible to predict whether the SOFR or another reference rate will become an accepted alternative to LIBOR, or the effect that any such changes, phase out, alternative reference rates or other reforms, if they occur, would have on the amount of interest paid on, or the market value of, our current or future debt obligations, including our ABL Facility credit agreement and our Term Loan B Senior Secured Credit Agreement and our interest rate swaps. Uncertainty as to the nature of such potential changes, phase out, alternative reference rates or other reforms may materially adversely affect the trading market for LIBOR-based securities, including our Term Loan B Senior Secured Credit Agreement. Reform of, or the replacement or phasing out of, LIBOR and proposed regulation of LIBOR and other “benchmarks” may materially adversely affect the market value of, the applicable interest rate on and the amount of interest paid on our current or future debt obligations, including our ABL Facility credit agreement and our Term Loan B Senior Secured Credit Agreement and our interest rate swaps.

We face inventory risk.

We identify slow-moving and obsolete inventories and estimate appropriate loss provisions accordingly. No assurance can be given that we will not incur additional inventory charges. Such charges could materially adversely affect our financial condition and operating results.

The changes in the fair value of derivatives used as hedges would be reflected in our earnings if we have not elected hedge accounting, if our hedges do not qualify as highly effective or if we do not believe that forecasted transactions would occur.

We have derivative financial instruments to hedge our interest rate risk. In addition, in order to mitigate the variation in our operating results due to commodity price fluctuations, we have derivative financial instruments that hedge certain commodity price risks associated with forecasted future natural gas requirements. We may have derivative financial instruments that hedge foreign exchange rate risks associated with transactions denominated in some currencies other than the U.S. dollar. The results of our hedging practices could be positive, neutral or negative in any period, depending on price changes of the hedged exposures. We account for derivatives in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 815, “Derivatives and Hedging.” These derivatives qualify for hedge accounting if the hedges are highly effective and we have designated and documented contemporaneously the hedging relationships involving these derivative instruments. While we intend to continue to meet the conditions for hedge accounting, if our hedges do not qualify as highly effective or if we do not believe that forecasted transactions would occur, the changes in the fair value of the derivatives used as hedges would be reflected in our results of operations and could significantly impact our earnings.

If counterparties to our hedge and interest rate swap agreements fail to perform, the applicable agreements would not protect us from fluctuations in pricing of the applicable commodity or interest rates, as the case may be.

If the counterparties to our derivative financial instruments that hedge commodity price risks or interest rates were to fail to perform, we would no longer be protected from fluctuations in the pricing of the applicable commodities or in interest rates, and the impact of these fluctuations would impact our results of operations and financial condition.

Charges related to our employee pension and post-retirement welfare plans may adversely affect our results of operations and financial condition.

As part of our pension expense, we periodically incur pension settlement charges. We may incur further expenses related to our employee pension and post-retirement welfare plans that could have a material adverse effect on our results of operations and financial condition.

If our investments in e-commerce, new technology and other capital expenditures do not yield expected returns, our results of operations could be adversely affected.

We continue to invest in our glass tableware production equipment and make other capital expenditures to further improve our production efficiency, reduce our cost profile and expand and enhance our e-commerce capabilities. To the extent that these investments do not generate targeted levels of returns in terms of profitability, efficiency or improved cost profile, our financial condition and results of operations could be adversely affected.

Governmental conversion controls over the foreign currencies in which we operate could affect our ability to convert the earnings of our foreign subsidiaries into U.S. dollars.

While the Mexican government does not currently restrict, and for many years has not restricted, the right or ability of Mexican or foreign persons or entities to convert pesos into U.S. dollars or to transfer other currencies out of Mexico, in the future the Mexican government could institute restrictive exchange rate policies or governmental controls over the convertibility of pesos into U.S. dollars or other currencies. Restrictive exchange rate or conversion policies could limit our ability to transfer or convert the peso earnings of our Mexican subsidiary into other currencies, upon which we rely in part to satisfy our debt obligations through intercompany loans.

In addition, the government of China imposes controls on the convertibility of renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. Shortages in the availability of foreign currency may restrict the ability of Libbey China to remit sufficient foreign currency to make payments to us. Under existing Chinese foreign exchange regulations, payments of current account items, including profit distributions, interest payments and expenditures from trade-related transactions, can be made in foreign currencies without prior approval from the Chinese State Administration of Foreign Exchange by complying with certain procedural requirements. However, approval from appropriate government authorities is required where renminbi are to be converted into foreign currencies and remitted out of China to pay capital expenses such as the repayment of bank loans denominated in foreign currencies. In the future, the Chinese government could institute restrictive exchange rate policies for current account transactions. These policies may limit our ability to remit proceeds received in connection with any strategic transactions we may undertake in connection with our review of strategic alternatives involving our China business and could adversely affect our results of operations and financial condition.

Our ability to recognize the benefit of deferred tax assets is dependent upon future taxable income and the timing of temporary difference reversals.

Assessing the recoverability of deferred tax assets requires management to make significant estimates related to expectations of future taxable income and the timing of reversals of temporary differences. To the extent that these factors differ significantly from estimates, our ability to realize the deferred tax assets could be impacted.

We may incur additional tax expense as a result of changes to tax laws, regulations and evolving interpretations thereof.

We are subject to the tax laws, regulations, and legal decisions in various tax jurisdictions. Our worldwide tax provision is based in part on many material judgments and interpretations of these bodies of law. Tax authorities in the various jurisdictions may not agree with our judgments and interpretations and may assess additional tax which could result in material changes to our tax liabilities and/or significant legal and consulting fees in defense thereof. Additionally, tax laws, regulations and legal precedents may change over time resulting in material changes to our tax provisions and deferred tax positions. Changes to tax laws, regulations, and legal precedents could contain statutory changes or interpretations that are inconsistent with the Company’s application of the law in the absence of such changes and could result in material adjustments to tax liabilities.

Risks associated with market conditions

Slowdowns or changes in trends in the retail, travel, restaurant, bar and entertainment industries, and in the retail and foodservice channels of distribution generally, may negatively impact demand for our products.

Our business is dependent on business and personal discretionary spending in the retail, travel, restaurant and bar or entertainment industries. Business and personal discretionary spending may decline during general economic downturns or during periods of uncertainty about economic conditions. In addition, austerity and other regulatory measures adopted by some governments may cause consumers in some markets that we serve to reduce or postpone spending. Consumers also may reduce or postpone spending in response to tighter credit, negative financial news, higher fuel and energy costs, higher taxes and healthcare costs and/or declines in income or asset values. Additionally, expenditures in the travel, restaurant and bar or entertainment industries may decline after incidents of terrorism, during periods of geopolitical conflict in which travelers become concerned about safety issues, during periods of severe weather or during periods when travel or entertainment might involve health-related risks such as severe outbreaks, epidemics or pandemics of contagious disease.

Changes in trends, including those impacting the restaurant and bar industry, also may negatively impact demand for our products. For example, shifts from dining at full-service restaurants to dining at quick-serve restaurants and grocerants (combined grocery stores and restaurants), or from dining at chain restaurants to dining at locally-owned restaurants, as well as a trend toward home delivery of meals and meal kits, may result in reduced demand for our products in the foodservice channel of distribution.

Additionally, changes in the buying preferences of consumers and customers may adversely impact the demand for and profitability of our products. For example, consumer buying preferences continue to shift from buying at brick-and-mortar stores to buying online. Similarly, in the foodservice channel of distribution, end users of our products such as bars and restaurants increasingly are demonstrating a preference to bypass traditional foodservice distributors in favor of buying online, particularly as they seek to replenish products originally purchased through traditional foodservice distributors. We launched our e-commerce capability in mid-2017 in response to the shifting buying preferences of consumers in the retail channel of distribution, and we initiated our e-commerce capability to the foodservice channel of distribution in late 2019. However, these changes in buying preferences may outpace our still-developing e-commerce capability. In addition, if and to the extent that our brick-and-mortar retail customers and traditional foodservice distribution partners perceive our e-commerce capabilities as a threat rather than as an opportunity to expand their own businesses, demand for our products from brick-and-mortar retail customers and traditional foodservice distribution parties may be adversely affected.

An inability to meet the demand for new products may adversely impact our ability to compete effectively and to grow our business.

Our strategy depends in part on the timing and market acceptance of new product offerings and our ability to continually renew our pipeline of new products and bring those products to market. This ability may be adversely affected by difficulties or delays in product development, such as the inability to identify viable new products, obtain adequate intellectual property protection, or gain market acceptance of new products, as well as by difficulties or longer-than-expected lead times in sourcing products. There are no guarantees that new products will prove to be commercially successful or profitable.

An inability to develop new or expand existing customer relationships may adversely impact our ability to grow our business.

Our ability to grow our business depends in part on our ability to develop new customer relationships and to expand relationships with existing customers. In the foodservice channel of distribution, our ability to develop new customer relationships and expand relationships with existing customers may be adversely impacted by the increasing trend toward consolidation among foodservice distributors. Failure to develop and expand such relationships could have a material adverse effect on our business, results of operations and financial condition.

Changing industry and market conditions may dictate strategic decisions to restructure some business units and discontinue others. These decisions may require us to record material restructuring charges.

On February 18, 2019, the Board of Directors of Libbey approved a plan to pursue strategic alternatives with respect to our business in the People's Republic of China (PRC), including the sale or closure of our manufacturing and distribution facility located in Langfang, PRC. Due to the continued level of uncertainty surrounding the ultimate course of action, we are unable at this time to estimate an amount or range of amounts of any charges that we may incur in connection with the planned strategic review.

In the past, we have recorded other restructuring charges related to involuntary employee terminations, various facility abandonments, and various other restructuring activities. We continually evaluate ways to reduce our operating expenses through new restructuring opportunities, including more effective utilization of our assets, workforce, and operating facilities. In addition, changing industry and market conditions may dictate strategic decisions to restructure some business units and discontinue others. As a result, there is a risk, which is increased during economic downturns and with expanded global operations, that we may incur material restructuring charges in the future.

We face intense competition and competitive pressures that could adversely affect demand for our products and our results of operations and financial condition.

Our business is highly competitive, with the principal competitive factors being customer service, price, product quality, new product development, brand name, delivery time and breadth of product offerings. Advantages or disadvantages in any of these competitive factors may be sufficient to cause the customer to consider changing providers of the kinds of products that we sell.

Competitors include other glass tableware manufacturers, including large multinational companies such as Arc International (a French company), Paşabahçe (a unit of Şişecam Holdings, a Turkish company), Anchor Hocking (a U.S. company), AnHui DeLi Glassware Co., Ltd. (a Chinese company), Vicrila Industrias del Vidrio S.L.U. - VICRILA (a Spanish company), and various other manufacturers in Europe, Asia Pacific and the Americas; a variety of ceramic dinnerware and metalware manufacturers throughout the world, including Oneida Hospitality Group, Steelite and others; and a variety of sourcing or marketing companies. In addition, other products such as plastic and melamine compete with our glass tableware and ceramic dinnerware products.

Demand for our products may be adversely impacted by increased competitive pressures caused by the provision of subsidies by foreign countries to our competitors based in those countries; national and international boycotts and embargoes of other countries or U.S. imports and/or exports; the raising of tariff rates on, or increase of non-tariff trade barriers that apply to imports of our products to foreign countries; the lowering of tariff rates on imports into the U.S. of our foreign competitors' products; and other changes to international agreements that improve access to the U.S. market for our competitors.

In addition, the cost-competitiveness of our products may be adversely affected by inflationary pressures that cause us to increase the prices of our products in order to maintain their profitability. In that connection, some of our competitors may have greater financial and capital resources than we do and continue to invest heavily to achieve increased production efficiencies. Competitors may have incorporated more advanced technology in their manufacturing processes, including more advanced automation techniques. Our labor and energy costs also may be higher than those of some foreign producers of glass tableware.

The cost-competitiveness of our products, as compared to foreign competition, also may be reduced as a result of major fluctuations in the value of the euro, the Mexican peso, the Chinese renminbi, which we refer to as the "RMB," or the Canadian dollar relative to the U.S. dollar and other major currencies. For example, if the U.S. dollar appreciates against the euro, the Mexican peso or the Chinese renminbi, the purchasing power of those currencies effectively would be reduced compared to the U.S. dollar, making our U.S.-manufactured products more expensive in the euro zone, Mexico and China, respectively, compared to the products of local competitors, and making products manufactured by our foreign competitors in those locations more cost-competitive with our U.S.-manufactured products.

Our Mexican pension and U.S. and non-U.S. post-retirement welfare plans are unfunded; in the future, levels of funding of our U.S. pension plans could decline and our pension expense could materially increase.

We have not funded, and under Mexican law we are not obligated to fund, our Mexican pension plan. As of December 31, 2019, the unfunded amount of the projected benefit obligation for the Mexican pension plan was $41.3 million. In addition, although we have closed participation in our U.S. pension and post-retirement welfare plans, many of our employees participate in, and many of our former employees are entitled to benefits under, our U.S. and non-U.S. defined benefit pension plans and post-retirement welfare plans.

In connection with our employee pension and post-retirement welfare plans, we are exposed to market risks associated with changes in the various capital markets. Changes in long-term interest rates affect the discount rate that is used to measure our obligations and related expense. Our total pension and post-retirement welfare expense, including pension settlement charges, for all U.S. and non-U.S. plans was $6.4 million and $7.0 million for the fiscal years ended December 31, 2019 and 2018, respectively. We expect our total pension and post-retirement welfare expense for all U.S. and non-U.S. plans to be $9.4 million in 2020. Volatility in the capital markets affects the performance of our pension plan asset performance and related pension expense. For discussion regarding sensitivity to changes in key assumptions related to our pension and other post-retirement plans, see "Management's Discussion and Analysis of Financial Condition and Results of Operations-Critical Accounting Estimates."

Declines in interest rates or the market value of securities held by our U.S. pension plan, or certain other changes, could materially reduce the funded status of those plans and affect our pension expense and the level and timing of minimum required contributions to the plans under applicable law.

Natural gas and electricity, the principal fuels we use to manufacture our products, are subject to fluctuating prices that could adversely affect our results of operations and financial condition.

Natural gas and electricity are the primary sources of energy in most of our production processes. We do not have long-term contracts for natural gas. In addition, the price of electricity under long-term contracts for electricity may be variable. Accordingly, the cost of our natural gas and electricity is subject to market variables and fluctuating prices. Consequently, our operating results are strongly linked to the cost of natural gas and electricity. We utilize natural gas swap contracts with respect to our North American manufacturing facilities, and we aim to hedge 40 to 70 percent of our anticipated natural gas needs there. With respect to our international facilities, we utilize fixed-price contracts to fix a portion of our natural gas needs. In some countries in which we operate, including China, our ability to put in place fixed-priced contracts or natural gas swap contracts to fix the price of natural gas is limited. We spent $49.3 million and $53.5 million on natural gas and electricity for the years ended December 31, 2019 and 2018, respectively. We have no way of predicting to what extent natural gas or electricity prices will rise in the future. To the extent that we are not able to offset increases in natural gas or electricity prices, such as by passing along the cost to our customers, these increases could adversely impact our margins and operating performance.

The market price of our common stock is subject to volatility.

The market price of our common stock has historically been volatile and in the future could be subject to wide fluctuations in response to numerous factors, many of which are beyond our control. These factors include market conditions within the industries in which we operate, as well as general economic and market conditions, such as recessions; seasonality of our business operations; the general state of the securities markets and the market for stocks of companies in our industry; trading volumes; sales by holders of large amounts of our common stock; short selling; actual or anticipated variations in our operational results and cash flow; actual or anticipated variations in our earnings relative to our competition; changes in financial estimates by securities analysts; governmental legislation or regulation; downgrades in our credit ratings; our high level of indebtedness and availability of and cost of credit; and currency and exchange rate fluctuations. Volatility of our stock price may increase the risk that our stockholders will suffer a loss on their investment or be unable to sell or otherwise liquidate their holdings of our common stock.

Operational Risks

If we are unable to renegotiate collective bargaining agreements successfully when they expire, organized strikes or work stoppages by unionized employees may have an adverse effect on our operating performance.

We are party to collective bargaining agreements that cover most of our manufacturing employees. The agreement with our unionized employees in the Netherlands is scheduled to expire on June 30, 2020; the agreement with our unionized employees in Shreveport, Louisiana, is scheduled to expire on December 15, 2020; and the agreements with our unionized employees in Toledo, Ohio, are scheduled to expire on September 30, 2022. Under our collective bargaining agreements covering our unionized employees in Mexico, we negotiate wages annually and negotiate benefits every other year. In Portugal and China we have no written collective bargaining agreement with our unionized employees, but there are consultations with the unions on various matters, including annual negotiations regarding wages.

We may not be able to successfully negotiate new collective bargaining agreements without a labor disruption. If any of our unionized employees were to engage in a strike or work stoppage in connection with the negotiation of their existing collective bargaining agreements (as happened at our Toledo, Ohio manufacturing plant in 2016), or if we are unable in the future to negotiate acceptable agreements with our unionized employees in a timely manner, we could experience a significant disruption of operations. If we experience a work stoppage and we elect to engage replacement workers, we could experience increased costs. In addition, we could experience increased operating costs as a result of higher wages or benefits paid to union members upon the execution of new agreements with our labor unions. We also could experience operating inefficiencies as a result of preparations for disruptions in production, such as increasing production and inventories. Finally, companies upon which we are dependent for raw materials, transportation or other services could be affected by labor difficulties. These factors and any such disruptions or difficulties could have an adverse impact on our operating performance and financial condition.

In addition, we are dependent on the cooperation of our largely unionized workforce to implement and adopt our productivity initiatives that are critical to our ability to improve our production efficiency. The effect of strikes and other slowdowns may adversely affect the degree and speed with which we can adopt optimization objectives.

If we are unable to increase output or achieve operating efficiencies, the profitability of our business may be materially and adversely affected.

We may not be successful in increasing output at our manufacturing facilities or gaining operating efficiencies that may be necessary in order to ensure that our products and their prices remain competitive.

Unexpected equipment failures may lead to production curtailments or shutdowns.

Our manufacturing processes are dependent upon critical glass-producing equipment, such as furnaces, forming machines and lehrs. This equipment may incur downtime as a result of unanticipated failures, accidents, natural disasters or other *force majeure* events. We may in the future experience facility shutdowns or periods of reduced production as a result of such failures or events. Unexpected interruptions in our production capabilities would adversely affect our productivity and results of operations for the affected period. We also may face shutdowns if we are unable to obtain enough energy in the peak demand periods.

A loss of the services of key personnel could have a material adverse effect on our business.

Our continued success depends to a large degree upon our ability to attract and retain key management executives, as well as upon a number of members of technology, operations and sales and marketing staffs. The loss of some of our key executives or key members of our operating staff, or an inability to attract or retain other key individuals, could materially adversely affect us.

The design and implementation of our new enterprise resource planning system could face significant difficulties.

In 2018, we began the design and implementation of a new enterprise resource planning (ERP) system, requiring significant investment and human resources to deploy. It is possible that the system will be more expensive and take longer to fully implement than originally planned, including increased investment, higher fees and expenses of third parties, delayed implementation scheduling, and more on-going maintenance expense once implemented. If for any reason the implementation is not successful, we could be required to expense rather than capitalize related amounts. In addition, potential flaws in the implementation of the ERP system may pose risks to our ability to operate successfully and efficiently. These risks include, but are not limited to, inefficient use of employees, distractions to our core business, adverse customer reactions, loss of key information, delays in decision making, and unforeseen additional costs due to the inability to integrate vital information processes.

We rely on increasingly complex information systems for management of our manufacturing, distribution, sales and other functions. If our information systems fail to perform these functions adequately, or if we experience an interruption in their operation, our business and results of operations could suffer.

All of our major operations, including manufacturing, distribution, sales and accounting, are dependent upon our complex information systems, including without limitation our enterprise resource planning (ERP) system. Our information systems are vulnerable to damage or interruption from:

- earthquake, fire, flood, hurricane and other natural disasters;
- power loss, computer systems failure, internet and telecommunications or data network failure; and
- hackers, computer viruses or software bugs.

In 2018 we began the phased implementation of a new ERP system. Any damage to, significant disruption in the operation of, or failure of our information systems, including our new ERP system, to perform as expected could disrupt our business; result in decreased sales, increased overhead costs, excess inventory and product shortages; and otherwise adversely affect our operations, financial performance and condition. We take significant steps to mitigate the potential impact of each of these risks, but there can be no assurance that these procedures will be completely successful.

In addition, although we take steps to secure our management information systems, including our computer systems, intranet and internet sites, email and other telecommunications and data networks, the security measures we have implemented may not be effective and our systems may be vulnerable to theft, loss, damage and interruption from a number of potential sources and events, including unauthorized access or security breaches and cyber attacks. Our reputation, brand, and financial condition could be adversely affected if, as a result of a significant cyber event or otherwise, our operations are disrupted or shutdown; our confidential, proprietary information is stolen or disclosed; data is manipulated or destroyed; we incur costs or are required to pay fines in connection with stolen customer, employee, or other confidential information; we must dedicate significant resources to system repairs or increase cyber security protection; or we otherwise incur significant litigation or other costs.

A severe outbreak, epidemic or pandemic of a contagious disease in a location where we have a facility, or from where we source raw materials or finished goods, could adversely impact our operations and financial condition.

Our facilities and our suppliers' facilities may be impacted by the outbreak of certain public health issues, including epidemics, pandemics and other contagious diseases. If a severe outbreak were to occur where we or our suppliers have facilities, it could adversely impact our operations and financial condition. In December 2019 a novel strain of coronavirus surfaced in China. The extent to which the coronavirus will impact our results, particularly with respect to our manufacturing facility in China and exports of products that we source from China, will depend on future developments, which are highly uncertain and cannot be predicted.

Our exploration and pursuit of strategic alternatives for our business in China may not be successful.

In February 2019, we announced the pursuit of strategic alternatives for our business in China, including a potential sale or closure of our manufacturing and distribution facility in Langfang, China. There can be no assurance that the strategic exploration process will result in a transaction or other outcome.

We may not be able to effectively integrate future businesses we acquire or joint ventures into which we enter.

Any future acquisitions that we might make or joint ventures into which we might enter are subject to various risks and uncertainties, including:

- the inability to integrate effectively the operations, products, technologies and personnel of the acquired companies (some of which may be spread out in different geographic regions) and to achieve expected synergies;
- the potential disruption of existing business and diversion of management's attention from day-to-day operations;
- the inability to maintain uniform standards, controls, procedures and policies or correct deficient standards, controls, procedures and policies, including internal controls and procedures sufficient to satisfy regulatory requirements of a public company in the U.S.;
- the incurrence of contingent obligations that were not anticipated at the time of the acquisitions;
- the failure to obtain necessary transition services such as management services, information technology services and others;
- the need or obligation to divest portions of the acquired companies; and
- the potential impairment of relationships with customers.

In addition, we cannot provide assurance that the integration and consolidation of newly acquired businesses or joint ventures will achieve any anticipated cost savings and operating synergies. The inability to integrate and consolidate operations and improve operating efficiencies at newly acquired businesses or joint ventures could have a material adverse effect on our business, financial condition and results of operations.

International risks

We are subject to risks associated with operating in foreign countries.

We operate manufacturing and other facilities throughout the world. As a result of our international operations, we are subject to risks associated with operating in foreign countries, including:

- difficulties in staffing and managing multinational operations;
- changes in government policies and regulations;
- limitations on our ability to enforce legal rights and remedies;
- political, social and economic instability and uncertainties arising from the global geopolitical environment, including the United Kingdom referendum in favor of exiting the European Union and the evolving U.S. political, regulatory and economic landscape following the 2016 elections and upcoming 2020 elections;
- drug-related violence, particularly in Mexico;
- war, civil disturbance or acts of terrorism;
- taking of property by nationalization or expropriation without fair compensation;
- imposition or changing of tariffs or other trade barriers;
- imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;
- ineffective intellectual property protection;
- disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations including the U.S. Foreign Corrupt Practices Act ("FCPA");
- potentially adverse tax consequences;
- impositions or increase of investment and other restrictions or requirements by foreign governments; and
- limitations on our ability to achieve the international growth contemplated by our strategy.

High levels of inflation in countries in which we operate or sell our products could adversely affect our operating results and cash flows.

Increases in inflation caused by or associated with currency devaluations or other economic conditions may result in reduced discretionary spending by consumers and therefore reduced demand for our products, as well as higher input costs for our businesses, as a result of which our results of operations and financial condition may be negatively impacted.

Legal and Regulatory Risks

Increasing legal and regulatory complexity will continue to affect our operations and results in potentially material ways.

Our legal and regulatory environment worldwide exposes us to complex compliance, litigation and similar risks that affect our operations and results in ways that potentially may be material. In many of our markets, including the U.S. and Europe, we are subject to increasing regulation, which has increased our cost of doing business. In developing markets, including in China, we face the risks associated with new and untested laws and judicial systems. Among the more important regulatory and litigation risks we face and must manage are the following:

- The cost, compliance and other risks associated with the often conflicting and highly prescriptive regulations we face, especially in the U.S., where inconsistent standards imposed by local, state and federal authorities can increase our exposure to litigation or governmental investigations or proceedings;
- The impact of new, potential or changing regulation that can affect our business plans, such as those relating to the content and safety of our products, as well as the risks and costs of our labeling and other disclosure practices;
- The risks and costs to us and our supply chain of increased focus by U.S. and overseas governmental authorities and non-governmental organizations on environmental matters, such as climate change, the reduction of greenhouse gases and water consumption, including as a result of initiatives that effectively impose a tax on carbon emissions;
- The impact of litigation trends, particularly in our major markets; the relative level of our defense costs, which vary from period to period depending on the number, nature and procedural status of pending proceedings; and the cost and other effects of settlements or judgments, which may require us to make disclosures or take other actions that may affect perceptions of our brand and products;
- The increasing costs and other effects of compliance with U.S. and overseas regulations affecting our workforce and labor practices, including regulations relating to health and safety, wage and hour practices, immigration, healthcare, retirement and other employee benefits and unlawful workplace discrimination;
- The cost and disruption of responding to governmental audits, investigations or proceedings (including audits of abandoned and unclaimed property, tax audits and audits of pension plans and our compliance with wage and hour laws), whether or not they have merit, and the cost to resolve or contest the results of any such governmental audits, investigations or proceedings;
- The legal and compliance risks associated with information technology, such as the costs of compliance with privacy, consumer protection and other laws (including without limitation the General Data Protection Regulation adopted by the European Union), the potential costs associated with alleged security breaches (including the loss of consumer confidence that may result and the risk of criminal penalties or civil liability to consumers or employees whose data is alleged to have been collected or used inappropriately) and potential challenges to the associated intellectual property rights or to our use of that intellectual property;
- The impact of changes in financial reporting requirements, accounting standards, pronouncements, principles or practices, including with respect to our critical accounting policies and estimates;
- The impact of changes in tax accounting or tax laws (or authoritative interpretations relating to any of these matters), and the impact of settlements of pending or any future adjustments proposed by any taxing authorities in connection with our tax audits, all of which will depend on their timing, nature and scope. For example, the Company and its subsidiaries are subject to examination by various countries' tax authorities, which may lead to proposed or assessed adjustments to our taxes. For further information regarding tax contingencies, see note 7, Income Taxes, to the Consolidated Financial Statements included in Part II, Item 8, of this Annual Report;
- The impact of changes in international trade agreements and tariffs, including the uncertainty surrounding the potential impact of Brexit and the various "trade-wars" between the U.S. and other countries; and
- The impact of new accounting standards or pronouncements, which could adversely affect our operating results or cause unanticipated fluctuations in our results in future periods. The accounting rules and regulations with which we must comply are complex and continually changing. In addition, many companies' accounting policies are being subjected to heightened scrutiny by regulators and the public. While we believe that our financial statements have been prepared in accordance of U.S. generally accepted accounting principles, we cannot predict the impact of future changes to accounting principles or to our accounting policies on our financial statements going forward.

We are subject to various environmental legal requirements and may be subject to new legal requirements in the future; these requirements could have a material adverse effect on our operations.

Our operations and properties, both in the U.S. and abroad, are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. These legal requirements frequently change and vary among jurisdictions. For example, Chinese restrictions on air emissions have continued to evolve in the face of the extreme air pollution in China. Compliance with these requirements, or the failure to comply with these requirements, may have a material adverse effect on operations.

We have incurred, and expect to incur, costs to comply with environmental legal requirements, including requirements limiting greenhouse gas emissions, and these costs could increase in the future. Many environmental legal requirements provide for substantial fines, orders (including orders to cease operations) and criminal sanctions for violations. Also, certain environmental laws impose strict liability and, under certain circumstances, joint and several liability on current and prior owners and operators of these sites, as well as persons who sent waste to them, for costs to investigate and remediate contaminated sites. These legal requirements may apply to conditions at properties that we presently or formerly owned or operated, as well as at other properties for which we may be responsible, including those at which wastes attributable to us were disposed. A significant order or judgment against us, the loss of a significant permit or license or the imposition of a significant fine may have a material adverse effect on operations.

Our products and operations are subject to various health and safety requirements and may be subject to new health and safety requirements in the future; these requirements could have a material adverse effect on our operations.

Our products and operations are subject to certain legal requirements relating to health and safety, including occupational health and safety. These legal requirements frequently change and vary among jurisdictions. Compliance with these requirements, or the failure to comply with these requirements, may have a material adverse effect on our operations. If any of our products becomes subject to new regulations, or if any of our products becomes specifically regulated by additional governmental or other regulatory entities, the cost of compliance could be material. For example, the U.S. Consumer Product Safety Commission, or CPSC, regulates many consumer products, including glass tableware products that are externally decorated with certain ceramic enamels. New regulations or policies by the CPSC could require us to change our manufacturing processes, which could materially raise our manufacturing costs. In addition, such new regulations could reduce sales of our glass tableware products. Furthermore, a significant order or judgment against us by any governmental or regulatory entity relating to health or safety matters, or the imposition of a significant fine relating to such matters, may have a material adverse effect on our operations.

We are subject to complex corporate governance, public disclosure and accounting requirements to which most of our competitors are not subject.

We are subject to changing rules and regulations of federal and state government, as well as the stock exchange on which our common stock is listed. These entities, including the Public Company Accounting Oversight Board (“PCAOB”), the Securities and Exchange Commission (“SEC”) and the NYSE American exchange, have issued a significant number of new and increasingly complex requirements and regulations over the course of the last several years and continue to develop additional regulations and requirements in response to laws enacted by the U.S. Congress. For example, the Sarbanes-Oxley Act of 2002 and the rules and regulations subsequently implemented by the SEC and the PCAOB, imposed and may impose further compliance burdens and costs on us. Also, in July 2010, the Dodd-Frank Wall Street Reform and Protection Act (the “Dodd-Frank Act”) was signed into law. The Dodd-Frank Act includes significant corporate governance and executive compensation-related provisions that require the SEC to adopt additional rules and regulations in these areas. Our efforts to comply with new requirements of law and regulation are likely to result in an increase in expenses and a diversion of management’s time from other business activities. Also, those laws, rules and regulations may make it more difficult and expensive for us to attract and retain key employees and directors and to maintain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to maintain coverage.

Our competitors generally are not subject to these rules and regulations, because they do not have securities that are publicly traded on a U.S. securities exchange. As a result, our competitors generally are not subject to the risks identified above. In addition, the public disclosures that we are required to provide pursuant to these rules and regulations may furnish our competitors with greater competitive information regarding our operations and financial results than we are able to obtain regarding their operations and financial results, thereby placing us at a competitive disadvantage.

Estimates and assumptions that we make in accounting for our results from operations are dependent on future results, involve significant judgments, may be imprecise and may differ materially from actual results.

Several estimates and assumptions are made that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made due to certain information used in preparation of our financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. We believe that accounting for property, plant and equipment, operating lease right-of-use assets, goodwill, intangible assets, pension and other post-employment benefit plans, contingencies and litigation, and income taxes involves significant judgments and estimates used in the preparation of our Consolidated Financial Statements. Actual results for all estimates could differ materially from the estimates and assumptions that we use, which could have a material adverse effect on our financial condition and results of operations.

Our financial results and operations may be adversely affected by violations of anti-bribery laws.

The FCPA and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. We cannot assure you that our internal controls and procedures always will protect us from the reckless or criminal acts committed by our employees or agents. If we were found to be liable for FCPA violations (either due to our own acts or our inadvertence or due to the acts or inadvertence of others), we could be liable for criminal or civil penalties or other sanctions, which could have a material adverse effect on our business.

Our failure to protect our intellectual property or prevail in any intellectual property litigation could materially and adversely affect our competitive position, reduce net sales or otherwise harm our business.

Our success depends in part on our ability to protect our intellectual property rights. We rely on a combination of patent, trademark, copyright and trade secret laws, licenses, confidentiality and other agreements to protect our intellectual property rights. However, this protection may not be fully adequate. Our intellectual property rights may be challenged or invalidated, an infringement suit by us against a third party may not be successful and/or third parties could adopt trademarks similar to our own. In particular, third parties could design around or copy our proprietary furnace, manufacturing and mold technologies, which are important contributors to our competitive position in the glass tableware industry. We may be particularly susceptible to these challenges in countries where protection of intellectual property is not strong. In addition, we may be accused of infringing or violating the intellectual property rights of third parties. Any such claims, whether or not meritorious, could result in costly litigation and divert the efforts of our personnel. Our failure to protect our intellectual property or prevail in any intellectual property litigation could materially and adversely affect our competitive position, reduce net sales or otherwise harm our business.

Our financial results may be adversely impacted by product liability claims, recalls or other litigation that is determined adversely to us.

We are involved in various routine legal proceedings arising in the ordinary course of our business. We do not consider any pending legal proceeding as material. However, our financial results could be adversely affected by monetary judgments and the cost to defend legal proceedings in the future, including product liability claims related to the products we manufacture. Although we maintain product liability insurance coverage, potential product liability claims are subject to a self-insured retention or could be excluded under the terms of the policy.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

At December 31, 2019 we had operations in the following locations:

Segment	Location	Manufacturing	Warehousing/Distribution
U.S. & Canada	Toledo, Ohio	x	x
	Shreveport, Louisiana	x	x
	Laredo, Texas		x
	West Chicago, Illinois		x
Latin America	Monterrey, Mexico	x	x
EMEA	Leerdam, Netherlands	x	x
	Marinha Grande, Portugal	x	x
Other	Langfang, China	x	x

These facilities have an aggregate floor space of 7.1 million square feet. We own approximately 65 percent and lease approximately 35 percent of this floor space. In addition to the operational facilities listed above, our headquarters (Toledo, Ohio), office space for members of our marketing, digital and e-commerce team (Columbus, Ohio), some warehouses (various locations), sales offices (various locations), showrooms (in Chicago, New York City and Toledo, Ohio) and various outlet stores are located in leased space. We also utilize various warehouses as needed on a month-to-month basis.

All of our principal facilities are currently being utilized for their intended purpose. In the opinion of management, all of these facilities are well maintained and adequate for our planned operational requirements.

Item 3. Legal Proceedings

We are involved in various routine legal proceedings arising in the ordinary course of our business. We are a named potentially responsible party with respect to a landfill in West Covina, California, and with respect to the Lower Ley Creek and Upper Ley Creek sub-sites of the Onondaga (New York) Lake Superfund Site. For a detailed discussion of these environmental contingencies, see note 17, Contingencies, to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report, which is incorporated herein by reference.

In addition, the Company and its subsidiaries are subject to examination by various countries' tax authorities. These examinations may lead to proposed or assessed adjustments to our taxes. For a detailed discussion on tax contingencies, see note 7, Income Taxes, to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report, which is incorporated herein by reference.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market For Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Common Stock and Dividends

Libbey Inc. common stock is listed for trading on the NYSE American exchange under the symbol **LBY**.

On February 20, 2020, there were 744 registered common shareholders of record. From February 2015 through March 2018, dividends were paid. The declaration of future dividends is within the discretion of the Board of Directors of Libbey and depends upon, among other things, business conditions, earnings and the financial condition of Libbey.

Issuer Purchases of Equity Securities

Following is a summary of the 2019 fourth quarter activity in our share repurchase program:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs (1)
October 1 to October 31, 2019	—	$ —	—	941,250
November 1 to November 30, 2019	—	$ —	—	941,250
December 1 to December 31, 2019	—	$ —	—	941,250
Total	—	$ —	—	941,250

(1) We announced on December 10, 2002, that our Board of Directors authorized the purchase of up to 2,500,000 shares of our common stock in the open market and negotiated purchases. In January 2015, our Board of Directors increased the current stock repurchase authorization by an additional 500,000 shares, for a total of 3,000,000 shares authorized. There is no expiration date for this authorization. No shares have been repurchased since April 2016.

Item 6. Selected Financial Data

Selected financial information is as follows:

Year ended December 31, (dollars in thousands, except percentages, per-share amounts and employees)	2019	2018	2017	2016	2015 (a)
Operating Results:					
Net sales	$ 782,437	$ 797,858	$ 781,828	$ 793,420	$ 822,345
Gross profit	$ 154,209	$ 154,891	$ 154,041	$ 169,683	$ 199,766
Gross profit margin	19.7%	19.4%	19.7%	21.4%	24.3%
Selling, general and administrative expenses	$ 122,370	$ 127,851	$ 126,205	$ 121,732	$ 128,205
Asset Impairments	$ 65,152	$ —	$ 79,700	$ —	$ —
Income (loss) from operations (IFO)	$ (33,313)	$ 27,040	$ (51,864)	$ 47,951	$ 71,561
IFO margin	(4.3)%	3.4%	(6.6)%	6.0%	8.7%
Other income (expense)	$ (4,443)	$ (2,764)	$ (5,306)	$ 721	$ (24,960)
Earnings (loss) before interest and income taxes (EBIT)	$ (37,756)	$ 24,276	$ (57,170)	$ 48,672	$ 46,601
EBIT margin	(4.8)%	3.0%	(7.3)%	6.1%	5.7%
Interest expense	$ 22,510	$ 21,979	$ 20,400	$ 20,888	$ 18,484
Income (loss) before income taxes	$ (60,266)	$ 2,297	$ (77,570)	$ 27,784	$ 28,117
Provision (benefit) for income taxes (a)	$ 8,753	$ 10,253	$ 15,798	$ 17,711	$ (38,216)
Effective tax rate	(14.5)%	446.4%	(20.4)%	63.7%	(135.9)%
Net income (loss) (a)	$ (69,019)	$ (7,956)	$ (93,368)	$ 10,073	$ 66,333
Net income (loss) margin	(8.8)%	(1.0)%	(11.9)%	1.3%	8.1%
Per-Share Amounts:					
Diluted net income (loss) (a)	$ (3.08)	$ (0.36)	$ (4.24)	$ 0.46	$ 2.99
Dividends declared	$ —	$ 0.1175	$ 0.47	$ 0.46	$ 0.44
Other Information:					
Adjusted EBITDA (b) (non-GAAP)	$ 70,308	$ 70,950	$ 70,562	$ 111,641	$ 116,349
Adjusted EBITDA margin (b) (non-GAAP)	9.0%	8.9%	9.0%	14.1%	14.1%
Employees	5,872	6,083	6,188	6,254	6,543
Balance Sheet Data:					
Total assets (c)	$ 706,687	$ 714,175	$ 717,239	$ 818,169	$ 852,444
Total liabilities (c)	$ 732,474	$ 664,282	$ 650,345	$ 673,050	$ 704,062
Trade Working Capital (d) (non-GAAP)	$ 176,842	$ 201,244	$ 199,537	$ 183,540	$ 200,846
% of net sales	22.6%	25.2%	25.5%	23.1%	24.4%
Total borrowings - net	$ 391,840	$ 397,700	$ 384,390	$ 407,840	$ 431,019
Cash Flow Data:					
Net cash provided by operating activities	$ 63,432	$ 36,870	$ 45,308	$ 83,904	$ 69,692
Net cash used in investing activities	$ (31,159)	$ (45,087)	$ (47,628)	$ (34,604)	$ (48,129)
Free Cash Flow (e) (non-GAAP)	$ 32,273	$ (8,217)	$ (2,320)	$ 49,300	$ 21,563
Net cash provided by (used in) financing activities	$ (8,005)	$ 9,465	$ (35,214)	$ (35,976)	$ (29,997)

(a) Includes a tax benefit of $(43,805) in the fourth quarter of 2015 related to the reversal of substantially all of the remaining valuation allowance recorded against U.S. deferred tax assets.

(b) We believe that Adjusted EBITDA (adjusted earnings before interest, taxes, depreciation and amortization) and the associated margin, non-GAAP financial measures, are useful metrics for evaluating our financial performance. For a reconciliation from net income (loss) to Adjusted EBITDA, reasons why we use this measure and certain limitations, see below.

(c) On January 1, 2019, we adopted the new lease accounting standard applying the modified retrospective approach which resulted in us recognizing operating lease right-of-use assets and lease liabilities on the balance sheet. 2015 to 2018 continue to be reported in accordance with our previous accounting.

(d) Defined as net accounts receivable plus net inventories less accounts payable.

(e) We believe that Free Cash Flow (the sum of net cash provided by operating activities and net cash used in investing activities), is a useful metric for evaluating our liquidity. For reasons why we use this metric and certain limitations, see "Free Cash Flow" within " Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Reconciliation of Net Income (Loss) to Adjusted EBITDA

Year ended December 31, (dollars in thousands)	**2019**	**2018**	**2017**	**2016**	**2015**
Net income (loss) (U.S. GAAP)	$ (69,019)	$ (7,956)	$ (93,368)	$ 10,073	$ 66,333
Add:					
Interest expense	22,510	21,979	20,400	20,888	18,484
Provision (benefit) for income taxes	8,753	10,253	15,798	17,711	(38,216)
Depreciation and amortization	39,046	44,333	45,544	48,486	42,712
Add: Special items before interest and taxes:					
Impairment of goodwill (note 4) (1)	45,981	—	79,700	—	—
Impairment of long-lived assets (notes 4, 5 & 15) (2)	19,171	—	—	—	—
Product portfolio optimization (3)	—	—	—	5,693	—
Reorganization/restructuring charges (4)	3,341	—	2,488	—	4,316
Executive terminations/retirements	—	—	—	4,460	870
Pension settlements	—	—	—	168	21,693
Work stoppage (5)	—	—	—	4,162	—
Fees associated with strategic initiative (6)	—	2,341	—	—	—
Debt refinancing fees	525	—	—	—	—
Environmental obligation	—	—	—	—	157
Adjusted EBITDA (non-GAAP)	$ 70,308	$ 70,950	$ 70,562	$ 111,641	$ 116,349
Net sales	$ 782,437	$ 797,858	$ 781,828	$ 793,420	$ 822,345
Net income (loss) margin (U.S. GAAP)	(8.8)%	(1.0)%	(11.9)%	1.3%	8.1%
Adjusted EBITDA margin (non-GAAP)	9.0%	8.9%	9.0%	14.1%	14.1%

(1) *2019 and 2017 include a non-cash goodwill impairment charge recorded in our Latin America segment.*

(2) *Includes non-cash impairment charges for property, plant and equipment, operating lease right-of-use assets and a trade name in our EMEA segment.*

(3) *Product portfolio optimization relates to inventory reductions to simplify and improve our operations.*

(4) *These charges were a part of our cost savings initiatives to drive improved performance.*

(5) *Work stoppage relates to the lower production volume impact, shipping costs and other direct incremental expenses associated with the two-week Toledo, Ohio, work stoppage in the fourth quarter of 2016.*

(6) *Legal and professional fees associated with a strategic initiative that we terminated during the third quarter of 2018.*

Non-GAAP Measures

We sometimes refer to amounts, associated margins and other data derived from consolidated financial information but not required by GAAP to be presented in financial statements. Certain of these data are considered “non-GAAP financial measures” under Securities and Exchange Commission (SEC) Regulation G. Our non-GAAP measures are used by analysts, investors and other interested parties to compare our performance with the performance of other companies that report similar non-GAAP measures. Libbey believes these non-GAAP measures provide meaningful supplemental information regarding financial performance by excluding certain expenses and benefits that may not be indicative of core business operating results. We believe the non-GAAP measures, when viewed in conjunction with U.S. GAAP results and the accompanying reconciliations, enhance the comparability of results against prior periods and allow for greater transparency of financial results and business outlook. In addition, we use non-GAAP data internally to assess performance and facilitate management’s internal comparison of our financial performance to that of prior periods, as well as trend analysis for budgeting and planning purposes. The presentation of our non-GAAP measures is not intended to be considered in isolation or as a substitute for, or superior to, the financial information prepared and presented in accordance with U.S. GAAP. Furthermore, our non-GAAP measures may not be comparable to similarly titled measures reported by other companies and may have limitations as an analytical tool.

We define Adjusted EBITDA as net income (loss) plus interest expense, provision for income taxes, depreciation and amortization, and special items that Libbey believes are not reflective of our core operating performance. The most directly comparable U.S. GAAP financial measure is net income (loss).

We present Adjusted EBITDA because we believe it is used by analysts, investors and other interested parties in comparing our performance across reporting periods on a consistent basis by excluding items that we do not believe are indicative of our core business operating results. Adjusted EBITDA also allows for a measure of comparability to other companies with different capital and legal structures, which accordingly may be subject to different interest rates and effective tax rates, and to companies that may incur different depreciation and amortization expenses or impairment charges. In addition, we use Adjusted EBITDA internally to measure profitability.

Adjusted EBITDA has limitations as an analytical tool. Some of these limitations are:

- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect the interest expense, or the cash requirements necessary to service interest or principal payments, on our debts;
- Although depreciation and amortization are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements of capital expenditures or contractual commitments;
- Adjusted EBITDA does not reflect the impact of certain cash charges resulting from matters we consider not to be indicative of our ongoing operations; and
- Other companies in our industry may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

Because of these limitations, Adjusted EBITDA should not be considered in isolation or as a substitute for performance measures calculated in accordance with U.S. GAAP.

Constant Currency

We translate revenue and expense accounts in our non-U.S. operations at current average exchange rates during the year. References to “constant currency,” “excluding currency impact” and “adjusted for currency” are considered non-GAAP measures. Constant currency references regarding net sales reflect a simple mathematical translation of local currency results using the comparable prior period’s currency conversion rate. Constant currency references regarding Segment EBIT and Adjusted EBITDA comprise a simple mathematical translation of local currency results using the comparable prior period’s currency conversion rate plus the transactional impact of changes in exchange rates from revenues, expenses and assets and liabilities that are denominated in a currency other than the functional currency. We believe this non-GAAP constant currency information provides valuable supplemental information regarding our core operating results, better identifies operating trends that may otherwise be masked or distorted by exchange rate changes and provides a higher degree of transparency of information used by management in its evaluation of our ongoing operations. These non-GAAP measures should be viewed in addition to, and not as an alternative to, the reported results prepared in accordance with GAAP. Our currency market risks include currency fluctuations relative to the U.S. dollar, Canadian dollar, Mexican peso, euro and Chinese renminbi.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward Looking Statements

This document and supporting schedules contain statements that are not historical facts and constitute projections, forecasts or forward-looking statements. For a description of the forward-looking statements and risk factors that may affect our performance, see the "Risk Factors" section above.

Additionally, for an understanding of the significant factors that influenced our performance during the past two years, the following should be read in conjunction with the audited Consolidated Financial Statements and Notes.

General Overview

Headquartered in Toledo, Ohio, we believe that we have the largest manufacturing, distribution and service network among glass tableware manufacturers in the Western Hemisphere and that we are one of the largest glass tableware manufacturers in the world. Our tabletop product portfolio consists of an extensive line of high quality, machine-made glass tableware, including casual glass beverageware, in addition to ceramic dinnerware and metal flatware. We sell our products to foodservice, retail, and business-to-business customers in over 100 countries, with our sales to customers in North America accounting for approximately 78 percent of our total sales. We believe we are the largest manufacturer and marketer of casual glass beverageware in North America for the foodservice and retail channels. Additionally, we are a manufacturer and marketer of casual glass beverageware in the EMEA and Asia Pacific regions.

Our reporting segments are U.S. & Canada, Latin America, EMEA and Other. Segment results are based on the geographical destination of the sale. Our three reportable segments are defined below. Our operating segment that does not meet the criteria to be a reportable segment is disclosed as Other.

U.S. & Canada—includes sales of manufactured glassware products and sourced tableware having an end-market destination in the U.S & Canada, excluding glass products for OEMs, which remain in the Latin America segment.

Latin America—includes primarily sales of manufactured and sourced glass tableware having an end-market destination in Latin America, as well as glass products for OEMs regardless of end-market destination.

EMEA—includes primarily sales of manufactured and sourced glass tableware having an end-market destination in Europe, the Middle East and Africa.

Other—includes primarily sales of manufactured and sourced glass tableware having an end-market destination in Asia Pacific.

Executive Overview

Throughout 2019, our business was impacted by global competition in all of our distribution channels, fluctuating business and consumer confidence in the U.S. and Europe as a result of increased economic and political uncertainty from various factors including ongoing trade tensions between the U.S. and China and the potential for a no-deal Brexit in Europe, as well as slowing economies in Europe, China and parts of Latin America. Other factors impacting our business during the year were continued declines in U.S. & Canada foodservice traffic, as reported by third-party research firms Knapp-Track and Blackbox; continued migration of consumer purchasing from brick-and-mortar stores to online commerce, particularly in the U.S. & Canada and Europe; shifting consumer preferences in Europe from mid-tier retailers (where sales of Royal Leerdam® products have been concentrated) to discounters; and increased competitive pressures in Latin America, as Chinese manufacturers divert sales of their products from the U.S. market to Latin America in order to avoid the increased tariffs imposed by the U.S. on Chinese imports into the U.S. Management expects these trends, and the challenging environment to continue into 2020, including in the business-to-business channel, which is dependent on customer demands.

Growth is expected for the U.S. in 2020, as consumer confidence and household spending is expected to be high. The recently signed trade deal with China and the U.S., Mexico and Canada Agreement (USMCA) should reduce some uncertainty; however, any change in tariffs or policy could pose a risk to the expected growth.

The overall Latin America economy struggled to grow in 2019 due to ongoing political and economic uncertainty, trade tensions and a weakening global economy. However, economic forecasters are showing the outlook for 2020 to rebound with an expected gradual pickup in global growth, continued monetary support, less economic uncertainty and a gradual recovery in stressed economies. Mexico's economy is also projected to grow in 2020 as conditions normalize, including the ratification of the USMCA trade agreement.

The European economy is expected to gradually improve for 2020. The recent reduction in trade tensions between the U.S. and Europe have helped ease some of the uncertainties for business. However, debt levels within the region continue to be high, uncertainty surrounding the transition of the United Kingdom's decision to exit the European Union ("Brexit") continues to persist and if trade tensions with the U.S. should resurface again, a recession could be triggered.

Despite a phase-one trade deal with the U.S. that is projected by economic forecasters to increase consumer spending, China's projected outlook for 2020 is expected to decline yet again. Their competitive environment continues to be challenging, and a recent viral outbreak (known as the Coronavirus or COVID-19) has impacted businesses within the country and has caused some disruptions to supply chains and activity.

With the intense global competition and various headwinds experienced in 2019, we had net sales of $782.4 million, 1.9 percent lower than the prior year, or 0.9 percent lower on a constant currency basis. The reduction in net sales compared to prior year was driven by unfavorable impacts in volume, channel mix and currency, partially offset by favorable price and mix of product sold, primarily in the U.S. & Canada segment. We recorded a net loss of $69.0 million for 2019, compared to a net loss of $8.0 million in 2018. Our 2019 net loss resulted primarily from $65.2 million of non-cash asset impairment charges, including $46.0 million in our Latin America segment for goodwill and $19.2 million in our EMEA segment (see note 4 to our Consolidated Financial Statements for details). Our top-line performance during the year was challenged by macroeconomic uncertainty in Europe and Latin America, as well as continued declines in U.S. foodservice traffic; however, solid operational execution across our footprint and disciplined spending throughout the company enabled us to deliver a 30 basis point improvement in our gross margin as well as a $26.6 million increase in operating cash flows year over year.

We made great progress with our initiatives throughout 2019, focusing the year on improving our cash generation, operating efficiencies and execution, as well as aligning our teams around critical plans to drive growth and stability.

During 2019, we accomplished the following:

- Made considerable progress on our organizational realignment plan that focuses on transformational actions and structural changes to create a simplified organization best positioned to deliver against its key financial and operational priorities
- Made headway on our business transformation to simplify and improve capabilities across many areas of the business, led by the on-going implementation of a new enterprise resource planning system
- Introduced Assheuer + Pott GmbH & Co. KG (APS®) premium serveware and buffetware products to the hospitality and catering sector of the U.S. & Canada foodservice channel
- Expanded our digital platform to support customers in our foodservice channel with the launch of our foodservice website
- Implemented an enhanced inspection and repair process to further extend asset lives, resulting in more time between furnace rebuilds and a reduction in depreciation expense
- Upgraded our laser edge technology at our Shreveport manufacturing facility, resulting in more efficient operations
- Invested in Libbey Portugal enabling us to switch to a lower cost source of power

While we are focused on taking advantage of opportunities we see in our markets to drive long-term growth, we intend to continue to improve our operational and organizational excellence. Therefore, in 2020, we intend to continue our momentum in executing revenue growth, leveraging our new global functional structure to drive significant operational improvement and keeping a disciplined focus on cash generation.

Our current capital allocation strategy prioritizes debt reduction and continued investments in strategic initiatives that are expected to increase long-term shareholder returns.

Results of Operations

The following table presents key results of our operations for the years 2019 and 2018:

Year ended December 31, **(dollars in thousands, except percentages and per-share amounts)**	**2019**	**2018**
Net sales	$ 782,437	$ 797,858
Gross profit	$ 154,209	$ 154,891
Gross profit margin	*19.7%*	*19.4%*
Income (loss) from operations (IFO)	$ (33,313)	$ 27,040
IFO margin	*(4.3)%*	*3.4%*
Net loss	$ (69,019)	$ (7,956)
Net loss margin	*(8.8)%*	*(1.0)%*
Diluted net loss per share	$ (3.08)	$ (0.36)
Adjusted EBITDA[(1)] (non-GAAP)	$ 70,308	$ 70,950
Adjusted EBITDA margin [(1)] (non-GAAP)	*9.0%*	*8.9%*

(1) We believe that Adjusted EBITDA and the associated margin, non-GAAP financial measures, are useful metrics for evaluating our financial performance, as they are measures that we use internally to assess our performance. For a reconciliation from net loss to Adjusted EBITDA, certain limitations and reasons we believe these non-GAAP measures are useful, see the "Reconciliation of Net Income (Loss) to Adjusted EBITDA" and "Non-GAAP Measures" sections included in Part II, Item 6 of this Annual Report, which is incorporated herein by reference.

Discussion of 2019 vs. 2018 Results of Operations

Net Sales

The following table summarizes net sales by operating segment:

Year ended December 31, (dollars in thousands)	2019	2018	Increase/(Decrease) $ Change	% Change	Currency Effects	Constant Currency Sales Growth (Decline) (1)
U.S. & Canada	$ 491,230	$ 483,741	$ 7,489	1.5%	$ (80)	1.6%
Latin America	141,584	148,091	(6,507)	(4.4)%	(210)	(4.3)%
EMEA	123,945	138,399	(14,454)	(10.4)%	(6,517)	(5.7)%
Other	25,678	27,627	(1,949)	(7.1)%	(1,054)	(3.2)%
Consolidated	$ 782,437	$ 797,858	$ (15,421)	(1.9)%	$ (7,861)	(0.9)%

(1) We believe constant currency sales growth (decline), a non-GAAP measure, is a useful metric for evaluating our financial performance. See the "Non-GAAP Measures" section included in Part II, Item 6 of this Annual Report, which is incorporated herein by reference, for the reasons we believe this non-GAAP metric is useful and how it is derived.

Net Sales — U.S. & Canada

Net sales in U.S. & Canada were $491.2 million, compared to $483.7 million in 2018, an increase of 1.5 percent, driven by favorable price and mix of product sold and higher volumes, partially offset by unfavorable channel mix. Net sales in our business-to-business and retail channels increased $7.1 million and $3.4 million, respectively, in the current year primarily due to increased volume. While net sales in our foodservice channel decreased $3.0 million compared to the prior year, primarily due to lower volume, partially offset by favorable price and mix of product sold, net sales in the second half of 2019 were higher than the prior-year period. Part of the decline in foodservice volume was caused by first-quarter 2019 events relating to the U.S. government shutdown and unusually severe weather across much of the U.S., as well as declines in foodservice traffic as reported by third party research firms Knapp-Track and Blackbox.

Net Sales — Latin America

Net sales in Latin America were $141.6 million, compared to $148.1 million in 2018, a decrease of 4.4 percent (a decrease of 4.3 percent excluding currency fluctuation). Overall, Latin America was challenged in 2019 by the macroeconomic uncertainty in the region. The decrease in net sales is primarily attributable to unfavorable product mix in the business-to-business channel, as well as lower volume across all three channels and unfavorable currency of $0.2 million. The unfavorable items were partially offset by favorable pricing. In comparison to 2018, net sales in all three distribution channels decreased, including business-to-business by $3.0 million, foodservice by $2.1 million and retail by $1.5 million.

Net Sales — EMEA

Net sales in EMEA were $123.9 million, compared to $138.4 million in 2018, a decrease of 10.4 percent (a decrease of 5.7 percent excluding currency fluctuation). EMEA was also challenged during the year by the economic conditions and political uncertainty in the region. Lower volumes in the business-to-business and retail channels and an unfavorable currency impact of $6.5 million led to the decrease in net sales, compared to the prior year. Partially offsetting the reductions were favorable price and mix of product sold.

Gross Profit

Gross profit was $154.2 million in 2019, compared to $154.9 million in the prior year. Gross profit as a percentage of net sales improved to 19.7 percent, compared to 19.4 percent in the prior year. Contributing to the $0.7 million decrease in gross profit were lower manufacturing activity of $10.0 million (including $11.6 million of production downtime) and a $1.3 million organizational realignment charge. Partially offsetting these unfavorable items were a favorable sales impact of $5.8 million, lower depreciation and amortization expense of $2.8 million, lower utility expense of $1.3 million and reduced benefit-related expenses of $0.3 million. Manufacturing activity includes the impact of fluctuating production activities from all facilities globally (including downtime, efficiency and utilization) and repairs and maintenance. The net sales impact equals net sales less the associated inventory at standard cost rates.

Income (Loss) From Operations

We recorded a loss from operations in 2019 of $(33.3) million, a $60.4 million decrease compared to income from operations of $27.0 million in 2018. Loss from operations as a percentage of net sales was (4.3) percent in 2019, compared to income from operations as a percentage of net sales of 3.4 percent in 2018. The unfavorable change in income (loss) from operations was driven by $65.2 million of non-cash asset impairment charges, including $46.0 million in our Latin America segment for goodwill and $19.2 million in our EMEA segment ($13.0 million for property, plant and equipment, $5.3 million for operating lease right-of-use assets and $0.9 million for a trade name), as well as the $0.7 million decrease in gross profit discussed above. Partially offsetting the unfavorable items were reduced selling, general and administrative expenses of $5.5 million. The favorable change in selling, general and administrative expenses was driven by $2.8 million reduction in spend on discretionary expenses, $2.3 million of non-repeating fees associated with a strategic initiative that was terminated in the third quarter of 2018, less legal and professional fees of $1.7 million, a favorable currency impact of $0.9 million and less depreciation and amortization expense of $0.7 million. Partially offsetting the favorable items were $2.1 million of organizational realignment charges, primarily consisting of cash severance and other employee related costs, and increased healthcare expense of $1.0 million. In addition, reduced spend relating to our e-commerce initiative of $1.9 million was primarily offset by increased spend of $1.6 million on ERP implementation and related costs in 2019.

Net Loss and Diluted Net Loss Per Share

We recorded a net loss of $(69.0) million, or $(3.08) per diluted share, in 2019, compared to a net loss of $(8.0) million, or $(0.36) per diluted share, in 2018. Net loss as a percentage of net sales was (8.8) percent in 2019, compared to (1.0) percent in 2018. The unfavorable change in net loss and diluted net loss per share is due to the factors discussed in Income (Loss) From Operations above, as well as an unfavorable change of $1.7 million in other income (expense) driven by foreign currency impacts, debt refinancing fees and higher interest expense of $0.5 million, partially offset by lower income tax expense of $1.5 million. The Company's effective tax rate was (14.5) percent for 2019, compared to 446.4 percent in 2018. The change in the effective tax rate was driven by several items, including differing levels of pretax income, the nondeductible asset impairments and nondeductible interest expense. The significantly smaller, absolute value of pretax income in 2018 compared with 2019 magnified the percentage impact on the effective tax rate of items such as non-deductible expenses and valuation allowances. Cash taxes paid for 2019 and 2018 were approximately $11.9 million and $8.5 million, respectively, with the increase primarily due to the 2010 tax audit in Mexico. See note 7, Income Taxes, to the Consolidated Financial Statements for further details.

Segment Earnings Before Interest and Income Taxes (Segment EBIT)

The following table summarizes Segment EBIT[(1)] by reporting segments:

Year ended December 31,							**Segment EBIT Margin**	
(dollars in thousands)		**2019**		**2018**		**$ Change**	**2019**	**2018**
U.S. & Canada	$	54,072	$	36,805	$	17,267	11.0%	7.6%
Latin America	$	6,208	$	12,599	$	(6,391)	4.4%	8.5%
EMEA	$	5,529	$	7,219	$	(1,690)	4.5%	5.2%

(1) Segment EBIT represents earnings before interest and taxes and excludes amounts related to certain items we consider not representative of ongoing operations as well as certain retained corporate costs and other allocations that are not considered by management when evaluating performance. Segment EBIT also includes an allocation of manufacturing costs for inventory produced at a Libbey facility that is located in a region other than the end market in which the inventory is sold. This allocation can fluctuate from year to year based on the relative demands for products produced in regions other than the end markets in which they are sold. See note 19 to the Consolidated Financial Statements for a reconciliation of Segment EBIT to net loss.

For 2019, Segment EBIT excludes the following: U.S. & Canada - $1.6 million of organizational realignment charges; Latin America - $46.0 million of non-cash goodwill impairment charges; and EMEA - $20.2 million (non-cash asset impairment charges of $19.2 million and organizational realignment charges of $1.0 million).

Segment EBIT — U.S. & Canada

Segment EBIT was $54.1 million in 2019, compared to $36.8 million in 2018. Segment EBIT as a percentage of net sales increased to 11.0 percent for 2019, compared to 7.6 percent in 2018. The $17.3 million increase in Segment EBIT was driven by a favorable sales impact of $7.9 million, lower shipping and storage expense of $2.9 million, favorable manufacturing activity of $2.6 million, a $2.5 million decrease in selling, general and administrative spend (including a $2.9 million decrease in e-commerce spend) and a $1.4 million decrease in utilities.

Segment EBIT — Latin America

Segment EBIT decreased to $6.2 million in 2019, compared to $12.6 million in 2018. Segment EBIT as a percentage of net sales decreased to 4.4 percent for 2019, compared to 8.5 percent in 2018. The primary drivers of the $6.4 million decrease were unfavorable manufacturing activity of $6.1 million (including $4.2 million of discretionary downtime), $3.3 million of increased shipping and storage expenses and $1.0 million of increased selling, general and administrative expenses (including $0.5 million of legal and professional fees and $0.4 million of labor expense). Partially offsetting the unfavorable items were less depreciation and amortization expense of $2.7 million and a favorable currency impact of $1.3 million.

Segment EBIT — EMEA

Segment EBIT decreased to $5.5 million in 2019, compared to $7.2 million in 2018. Segment EBIT as a percentage of net sales decreased to 4.5 percent for 2019, compared to 5.2 percent in 2018. The primary drivers of the $1.7 million decrease in Segment EBIT were unfavorable manufacturing activity of $1.8 million (resulting from discretionary downtime) and an unfavorable sales impact of $1.0 million, partially offset by less utility expense of $0.9 million.

Adjusted EBITDA

Adjusted EBITDA decreased by $0.6 million in 2019, to $70.3 million, compared to $71.0 million in 2018. As a percentage of net sales, Adjusted EBITDA was 9.0 percent for 2019, compared to 8.9 percent in 2018. The key contributors to the decrease in Adjusted EBITDA were a $10.0 million unfavorable impact of manufacturing activity (resulting from discretionary downtime) and higher benefit-related expenses of $1.8 million. Partially offsetting the unfavorable items were a favorable sales impact of $5.8 million, $4.3 million of reduced selling, general and administrative expenses (including $3.2 million of legal and professional fees and $1.7 million of marketing expense) and $1.3 million of lower utility expenses. Adjusted EBITDA excludes special items that Libbey believes are not reflective of our core operating performance as noted in the "Reconciliation of Net Income (Loss) to Adjusted EBITDA" included in Part II, Item 6 of this Annual Report, which is incorporated herein by reference.

Capital Resources and Liquidity

Under the ABL Facility at December 31, 2019, we had $17.4 million of outstanding borrowings and $10.0 million in letters of credit and other reserves, resulting in $68.2 million of unused availability. On June 17, 2019, Libbey Mexico entered into a $3.0 million working capital line of credit to cover working capital needs; there were no borrowings under this line of credit at December 31, 2019. In addition, we had $48.9 million of cash on hand at December 31, 2019, compared to $25.1 million of cash on hand at December 31, 2018. Of our total cash on hand at December 31, 2019 and 2018, $37.3 million and $21.7 million, respectively, were held in foreign subsidiaries. We plan to indefinitely reinvest the excess of the amount for financial reporting over the tax basis of investments in our European and Mexican operations to support ongoing operations, capital expenditures and debt service. All other earnings can be distributed as allowable under local laws. Our Chinese subsidiaries' cash balance was $20.2 million as of December 31, 2019. Local law currently limits distribution of this cash as a dividend; however, additional amounts may become distributable based on future income. For further information regarding potential dividends from our non-U.S. subsidiaries, see note 7, Income Taxes, in the Consolidated Financial Statements.

Our sales and operating income tend to be stronger in the last three quarters of each year and weaker in the first quarter of each year, primarily due to the impact of consumer buying patterns and production activity. This seasonal pattern causes cash provided by operating activities to be higher in the second half of the year and lower during the first half of the year. Based on our operating plans and current forecast expectations, we anticipate that our level of cash on hand, cash flows from operations and borrowing capacity under our ABL Facility will provide sufficient cash availability to meet our ongoing liquidity needs.

The Term Loan B matures on April 9, 2021; however, if it is not refinanced prior to January 9, 2021, the ABL Facility's springing maturity becomes effective and would be due at that time. The Company intends to refinance the Term Loan B prior to the ABL Facility springing maturity date, but there can be no assurance that the Company will be able to enter into an extended or replacement piece of debt prior to January 9, 2021. If we are unable to refinance the Term Loan B and we are unable to repay any outstanding balance on the ABL Facility, it may result in an event of default on our Term Loan B because of inability to meet all of our obligations under our credit agreements. Such a default, if not cured, would result in a cross default which would allow the lenders to accelerate the maturity of the Term Loan B, making it due and payable at that time.

Balance Sheet and Cash Flows

Cash and Equivalents

See the cash flow section below for a discussion of our cash balance.

Trade Working Capital

The following table presents our Trade Working Capital components:

December 31, **(dollars in thousands, except percentages and DSO, DIO, DPO and DWC)**	**2019**	**2018**
Accounts receivable — net	$ 81,307	$ 83,977
DSO (1)	*37.9*	*38.4*
Inventories — net	$ 174,797	$ 192,103
DIO (2)	*81.5*	*87.9*
Accounts payable	$ 79,262	$ 74,836
DPO (3)	*37.0*	*34.2*
Trade Working Capital (4) (non-GAAP)	$ 176,842	$ 201,244
DWC (5)	*82.5*	*92.1*
Percentage of net sales	*22.6%*	*25.2%*

(1) Days sales outstanding (DSO) measures the number of days it takes to turn receivables into cash.
(2) Days inventory outstanding (DIO) measures the number of days it takes to turn inventory into net sales.
(3) Days payable outstanding (DPO) measures the number of days it takes to pay the balances of our accounts payable.
(4) Trade Working Capital is defined as net accounts receivable plus net inventories less accounts payable. See below for further discussion as to the reasons we believe this non-GAAP financial measure is useful.
(5) Days trade working capital (DWC) measures the number of days it takes to turn our Trade Working Capital into cash.

DSO, DIO, DPO and DWC are calculated using the last twelve months' net sales as the denominator and are based on a 365-day year.

We believe that Trade Working Capital is important supplemental information for investors in evaluating liquidity in that it provides insight into the availability of net current resources to fund our ongoing operations. Trade Working Capital is a measure used by management in internal evaluations of cash availability and operational performance.

Trade Working Capital is used in conjunction with and in addition to results presented in accordance with U.S. GAAP. Trade Working Capital is neither intended to represent nor be an alternative to any measure of liquidity and operational performance recorded under U.S. GAAP. Trade Working Capital may not be comparable to similarly titled measures reported by other companies.

Trade working capital (as defined above) was $176.8 million at December 31, 2019, a decrease of $24.4 million from December 31, 2018. The decrease in our Trade Working Capital is primarily due to reduction in inventories (primarily resulting from downtime), decreased accounts receivable related to timing of collections, increased accounts payable and a favorable currency impact of $0.7 million (primarily the euro). As a result, Trade Working Capital as a percentage of the last twelve-month net sales was 22.6 percent at December 31, 2019, a favorable change from the 25.2 percent at December 31, 2018.

Borrowings

The following table presents our total borrowings:

December 31, (dollars in thousands)	Interest Rate	Maturity Date	2019		2018	
Borrowings under ABL Facility	floating (2)	December 7, 2022 (1)	$	17,386	$	19,868
Term Loan B	floating (3)	April 9, 2021		375,800		380,200
Total borrowings				393,186		400,068
Less — unamortized discount and finance fees				1,346		2,368
Total borrowings — net (4)			$	391,840	$	397,700

(1) *Maturity date will be January 9, 2021 if Term Loan B is not refinanced by this date.*
(2) *The interest rate on the ABL Facility borrowings was 1.75 percent at December 31, 2019.*
(3) *See "Derivatives" below and note 12 to the Consolidated Financial Statements.*
(4) *Total borrowings -- net includes long-term debt due within one year and long-term debt as stated in our Consolidated Balance Sheets.*

We had total borrowings of $393.2 million at December 31, 2019, compared to total borrowings of $400.1 million at December 31, 2018. Contributing to the $6.9 million decrease in borrowings were $2.5 million in payments on ABL borrowings and $1.1 million of quarterly amortization payments (for a total of $4.4 million) under our Term Loan B.

Of our total borrowings, $173.2 million, or approximately 44.0 percent, were subject to variable interest rates at December 31, 2019, as a result of converting $220.0 million of our Term Loan B debt to a fixed rate using an interest rate swap. The swap was effective January 2016 through January 2020 and maintained a 4.85 percent fixed interest rate. We have executed additional swaps that convert $200.0 million of our debt from variable to fixed from January 2020 to January 2025. For further discussion on our interest rate swaps, see note 12 to the Consolidated Financial Statements. A change of one percentage point in such rates would result in a change in interest expense of approximately $1.7 million on an annual basis.

Included in interest expense are the amortization of discounts and other financing fees. These items amounted to $1.3 million and $1.2 million for the years ended December 31, 2019 and 2018, respectively.

Cash Flow

Year ended December 31, (dollars in thousands)	2019		2018	
Net cash provided by operating activities	$	63,432	$	36,870
Net cash used in investing activities	$	(31,159)	$	(45,087)
Net cash provided by (used in) financing activities	$	(8,005)	$	9,465

Our net cash provided by operating activities was $63.4 million in 2019, compared to $36.9 million in 2018, a favorable cash flow impact of $26.6 million. Contributing to the increase in cash flow from operations was a favorable impact of $34.1 million related to Trade Working Capital (accounts receivable, inventories, and accounts payable), partially offset by increased payments related to our ERP initiative, additional income tax payments of $3.4 million (primarily related to Mexico) and higher incentive compensation payments.

Our net cash used in investing activities was $31.2 million and $45.1 million in 2019 and 2018, respectively, representing capital expenditures in each year.

Net cash provided by (used in) financing activities was ($8.0) million in 2019, compared to $9.5 million in 2018. The primary drivers of this $17.5 million change include the ($22.3) million net ABL Facility impact (2019 had net repayments of $2.4 million while 2018 had net borrowings of $19.9 million) and $0.8 million in debt refinancing fees, partially offset by 2018 payments that did not repeat in 2019 (dividends of $2.6 million and other debt repayments of $3.1 million).

At December 31, 2019, our cash balance was $48.9 million, an increase of $23.8 million from $25.1 million at December 31, 2018.

Free Cash Flow

The following table presents key drivers to our Free Cash Flow for 2019 and 2018:

Year ended December 31, **(dollars in thousands)**	**2019**	**2018**
Net cash provided by operating activities	$ 63,432	$ 36,870
Net cash used in investing activities	$ (31,159)	$ (45,087)
Free Cash Flow [1] (non-GAAP)	$ 32,273	$ (8,217)

(1) We define Free Cash Flow as the sum of net cash provided by operating activities and net cash used in investing activities. The most directly comparable U.S. GAAP financial measure is net cash provided by (used in) operating activities.

We believe that Free Cash Flow is important supplemental information for investors in evaluating cash flow performance in that it provides insight into the cash flow available to fund such things as debt service, acquisitions and other strategic investment opportunities. It is a measure we use to internally evaluate the overall liquidity of the business. Free Cash Flow does not represent residual cash flows available for discretionary expenditures due to our mandatory debt service requirements.

Free Cash Flow is used in conjunction with and in addition to results presented in accordance with U.S. GAAP. Free Cash Flow is neither intended to represent nor be an alternative to the measure of net cash provided by (used in) operating activities recorded under U.S. GAAP. Free Cash Flow may not be comparable to similarly titled measures reported by other companies.

Our Free Cash Flow was $32.3 million during 2019, compared to $(8.2) million in 2018, a favorable change of $40.5 million. The primary contributors to this change are the same 1:1 relationship as the $26.6 million favorable cash flow impact from operating activities and the favorable change of $13.9 million in investing activities, as discussed above.

Derivatives

We use natural gas swap contracts related to forecasted future North American natural gas requirements. The objective of these commodity contracts is to limit the fluctuations in prices paid due to price movements in the underlying commodity. We consider our forecasted natural gas requirements in determining the quantity of natural gas to hedge. We combine the forecasts with historical observations to establish the percentage of forecast eligible to be hedged, typically ranging from 40 percent to 70 percent of our anticipated requirements, and 18 months in the future, or more, depending on market conditions. The fair values of these instruments are determined from market quotes. At December 31, 2019, we had commodity contracts for 2,460,000 MMBTUs of natural gas with a fair market value of a $0.8 million liability. We have hedged a portion of our forecasted transactions through March 2021. At December 31, 2018, we had commodity futures contracts for 3,150,000 MMBTUs of natural gas with a fair market value of a $0.3 million asset. The counterparties for these derivatives are well established financial institutions rated BBB+ or better as of December 31, 2019, by Standard & Poor’s.

We have interest rate swap agreements in place to fix certain interest payments of our current and future floating rate Term Loan B debt. The first interest rate swap maintained a fixed interest rate of 4.85 percent, including the credit spread, on $220.0 million of our current Term Loan B debt and matured on January 9, 2020. Two additional interest rate swaps, with a combined notional amount of $200.0 million, became effective in January 2020, when the first swap matured. These two swaps in essence extended the first swap, have a term of January 2020 to January 2025, and carry a fixed interest rate of 6.19%, including credit spread. In the event our Term Loan B is refinanced, the fixed interest rate will be 3.19 percent plus the new refinanced credit spread. At December 31, 2019, the Term Loan B debt held a floating interest rate of 4.71 percent. If the counterparties to the interest rate swap agreements were to fail to perform, the interest rate swaps would no longer provide the desired results. However, we do not anticipate nonperformance by the counterparties. The counterparties held a Standard & Poor’s rating of BBB+ or better as of December 31, 2019.

The fair market value of our interest rate swaps is based on the market standard methodology of netting the discounted expected future variable cash receipts and the discounted future fixed cash payments. The variable cash receipts are based on an expectation of future interest rates derived from observed market interest rate forward curves. The fair market value of the interest rate swap agreements was a $14.6 million liability at December 31, 2019, and a $4.3 million liability at December 31, 2018.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements and related disclosures in conformity with U.S. generally accepted accounting principles requires us to make judgments, estimates and assumptions that affect the reported amounts in the Consolidated Financial Statements and accompanying notes. Note 2 to the Consolidated Financial Statements describes the significant accounting policies and methods used in their preparation. The areas described below are affected by critical accounting estimates and are impacted significantly by judgments and assumptions in the preparation of the Consolidated Financial Statements. Actual results could differ materially from the amounts reported based on these critical accounting estimates.

Revenue Recognition

Revenue is recognized at a point in time when control of the product has transferred to the customer. The transfer of control primarily takes place when risk of loss transfers in accordance with applicable shipping terms. Revenue is recognized based on the consideration specified in a contract with the customer, and is measured as the amount of consideration to which we expect to be entitled in exchange for transferring goods or providing services. When applicable, the transaction price includes estimates of variable consideration. We estimate provisions for rebates, customer incentives, allowances, returns and discounts based on the terms of the contracts, historical experience and anticipated customer purchases during the rebate period as sales occur. We continually evaluate the adequacy of these methods used, adjusting our estimates when the amount of consideration to which we expect to be entitled changes.

Slow-Moving and Obsolete Inventory

We identify slow-moving or obsolete inventories and estimate appropriate loss provisions accordingly. We recognize inventory loss provisions based upon excess and obsolete inventories driven primarily by future demand forecasts. At December 31, 2019, our inventories were $174.8 million, with loss provisions of $7.8 million, compared to inventories of $192.1 million and loss provisions of $9.5 million at December 31, 2018.

Asset Impairment

Fixed Assets

We assess our property, plant and equipment for possible impairment in accordance with FASB ASC Topic 360, “Property Plant and Equipment” (“FASB ASC 360”), whenever events or changes in circumstances indicate that the carrying value of the assets may not be recoverable or a revision of remaining useful lives is necessary. Such indicators may include economic and competitive conditions, changes in our business plans or management’s intentions regarding future utilization of the assets or changes in our commodity prices. An asset impairment would be indicated if the sum of the expected future net pretax cash flows from the use of an asset (undiscounted and without interest charges) is less than the carrying amount of the asset. An impairment loss would be measured based on the difference between the fair value of the asset and its carrying value. The determination of fair value is based on an expected present value technique in which multiple cash flow scenarios that reflect a range of possible outcomes and a risk-free rate of interest are used to estimate fair value or on a market appraisal. Projections used in the fair value determination are based on internal estimates for sales and production levels, capital expenditures necessary to maintain the projected production levels, and remaining useful life of the assets. These projections are prepared at the lowest level at which we have access to cash flow information and complete financial data for our operations, which is generally at the plant level.

Determination as to whether and how much an asset is impaired involves significant management judgment involving highly uncertain matters, including estimating the future success of product lines, future sales volumes, future selling prices and costs, alternative uses for the assets, and estimated proceeds from disposal of the assets. However, the impairment reviews and calculations are based on estimates and assumptions that take into account our business plans and long-term investment decisions.

During the fourth quarter of 2019, management concluded an impairment assessment for the Libbey Holland asset group (within our EMEA segment) was necessary as the likelihood of asset recovery diminished during the fourth quarter. Therefore, a recoverability test was performed as of December 31, 2019, which failed. As a result, the asset group was written down to fair value. Certain property, plant and equipment and right-of-use assets were written down, resulting in a non-cash impairment charge of $18.3 million presented in the asset impairments line item on the Consolidated Statements of Operations.

On February 18, 2019, the Board of Directors of Libbey approved a plan to pursue strategic alternatives with respect to our business in the PRC, including the sale or closure of our manufacturing and distribution facility located in Langfang, PRC. The Board’s decision supports our ongoing efforts to optimize our manufacturing and supply network to deliver customer value and achieve our strategic objectives, including deployment of our capital to better drive shareholder value.

As this decision by the Board of Directors may result in changes in our business plans or management’s intentions regarding future utilization of the related assets, a calculation was performed in accordance with FASB ASC 360 to determine if there was an indicator of impairment. The calculation considered all strategic alternatives that were being considered by management as of December 31, 2019, and the likelihood of each alternative. The resulting calculation did not indicate an impairment as of December 31, 2019, as the combined probability weighted average of the undiscounted cash flows associated with each alternative exceeded the carrying value of the assets. We continue to monitor the alternatives being considered by management as changes in strategy or alternatives available may result in future impairment charges.

In accordance with FASB ASC 360, we also perform an impairment analysis for our definite useful lived intangible assets when factors indicating impairment are present. There were no indicators of impairment noted in 2019 or 2018 that would require an impairment analysis to be performed for our definite useful lived intangible assets.

Goodwill and Indefinite Life Intangible Assets

Goodwill at December 31, 2019 was $38.4 million, representing approximately 5.4 percent of total assets. Goodwill represents the excess of cost over fair value of assets acquired for each reporting unit. Our reporting units represent an operating segment or components of an operating segment (which is one level below the operating segment level). Also, components are aggregated into one reporting unit if they share similar economic characteristics, the determination of which requires management judgment. Goodwill impairment tests are completed for each reporting unit as of October 1 of each year, or more frequently in certain circumstances where impairment indicators arise.

When performing our test for impairment, we measure each reporting unit's fair value using a combination of "income" and "market" approaches on a shipping point basis. The income approach calculates the fair value of the reporting unit based on a discounted cash flow analysis, incorporating the weighted average cost of capital of a hypothetical third-party buyer. Significant estimates in the income approach include the following: discount rate; expected financial outlook and profitability of the reporting unit's business; and foreign currency impacts. Discount rates use the weighted average cost of capital for companies within our peer group, adjusted for specific company risk premium factors. The market approach uses the "Guideline Company" method, which calculates the fair value of the reporting unit based on a comparison of the reporting unit to comparable publicly traded companies. Significant estimates in the market approach model include identifying similar companies with comparable business factors such as size, growth, profitability, risk and return on investment, assessing comparable multiples, as well as consideration of control premiums. The blended approach assigns a 70 percent weighting to the income approach and 30 percent to the market approach. The higher weighting is given to the income approach due to some limitations of publicly available peer information used in the market approach. The blended fair value of both approaches is then compared to the carrying value, and to the extent that fair value exceeds the carrying value, no impairment exists. However, to the extent the carrying value exceeds the fair value, an impairment is recorded.

As part of our on-going assessment of goodwill at June 30, 2019, it was noted that the significant reduction to the Company's share price throughout the quarter resulted in the market capitalization being less than the carrying value. As a result, we determined a triggering event had occurred and performed interim impairment tests of goodwill and other intangible assets as of June 30, 2019. Additionally, during the second quarter, management updated its long-range plan which indicated lower sales and profitability within the Mexico reporting unit (within the Latin America reporting segment) as compared to the projections used in the most recent goodwill impairment testing performed as of October 1, 2018. As a result, the impairment testing indicated that the carrying value of the Mexico reporting unit exceeded its fair value, and we recorded a non-cash impairment charge of $46.0 million during the second quarter of 2019. After recording the impairment charge, there is no longer any goodwill on the balance sheet related to the Mexico acquisition.

With respect to our reporting unit (within the U.S. & Canada reporting segment) that has goodwill, the results of our October 1, 2019 annual impairment test indicated the estimated fair value exceeded the carrying value by approximately 50 percent, thus, no impairment exists.

Individual indefinite life intangible assets are also evaluated for impairment on an annual basis, or more frequently in certain circumstances where impairment indicators arise. Total indefinite life intangible assets at December 31, 2019 were $11.1 million, representing 1.6 percent of total assets. When performing our test for impairment, we use a discounted cash flow method (based on a relief from royalty calculation) to compute the fair value, which is then compared to the carrying value of the indefinite life intangible asset. To the extent that fair value exceeds the carrying value, no impairment exists. Indefinite life intangible assets are tested for impairment as of October 1 of each year, or more frequently in certain circumstances where impairment indicators arise.

In conjunction with the goodwill impairment testing as of June 30, 2019, we also tested Libbey Holland's indefinite life intangible asset (Royal Leerdam® trade name) for impairment. We used a relief from royalty method to determine the fair market value that was compared to the carrying value of the indefinite life intangible asset. The sales forecast for Royal Leerdam® branded product was lowered due to declining performance of mid-tier retailers as consumers in EMEA move to discount and on-line retailers. As a result, the estimated fair value was determined to be lower than the carrying value, and we recorded a non-cash impairment charge of $0.9 million during the second quarter of 2019 in our EMEA reporting segment.

With the Royal Leerdam® trade name fair value equaling its carrying value at June 30, 2019, there is a potential of future impairment for the remaining intangible asset balance of $0.9 million if there is further degradation in the perceived value of the brand.

The results of the October 1, 2019 review did not indicate an impairment of indefinite life intangible assets.

Self-Insurance Reserves

We use self-insurance mechanisms to provide for potential liabilities related to workers' compensation and employee healthcare benefits that are not covered by third-party insurance. Workers' compensation accruals are recorded at the estimated ultimate payout amounts based on individual case estimates. In addition, we record estimates of incurred-but-not-reported losses based on actuarial models.

Although we believe that the estimated liabilities for self-insurance are adequate, the estimates described above may not be indicative of current and future losses. In addition, the actuarial calculations used to estimate self-insurance liabilities are based on numerous assumptions, some of which are subjective. We will continue to adjust our estimated liabilities for self-insurance, as deemed necessary, in the event that future loss experience differs from historical loss patterns.

Pension Assumptions

We have pension plans covering many of our employees. For a description of these plans, see note 8 to the Consolidated Financial Statements.

The assumptions used to determine net periodic pension expense for each year and the benefit obligations at December 31st were as follows:

	U.S. Plans		Non-U.S. Plans	
	2019	2018	2019	2018
Net periodic pension expense:				
Discount rate	4.31% to 4.33%	3.64% to 3.69%	10.60%	9.40%
Expected long-term rate of return on plan assets	6.50%	7.00%	Not applicable	Not applicable
Rate of compensation increase	Not applicable	Not applicable	4.30%	4.30%
Cash balance interest crediting rate	5.50%	5.50%	Not applicable	Not applicable
Benefit obligations:				
Discount rate	3.45% to 3.50%	4.31% to 4.33%	8.80%	10.60%
Rate of compensation increase	Not applicable	Not applicable	4.30%	4.30%
Cash balance interest crediting rate	5.50%	5.50%	Not applicable	Not applicable

Two critical assumptions, discount rate and expected long-term rate of return on plan assets, are important elements of plan expense and asset/liability measurement. We evaluate these critical assumptions on our annual measurement date of December 31st. Other assumptions involving demographic factors such as retirement age, mortality and turnover are evaluated periodically and are updated to reflect our experience. Actual results in any given year often will differ from actuarial assumptions because of demographic, economic and other factors.

The discount rate enables us to estimate the present value of expected future cash flows on the measurement date. The rate used reflects a rate of return on high-quality fixed income investments that match the duration of expected benefit payments at our December 31 measurement date. The discount rate at December 31st is used to measure the year-end benefit obligations and the earnings effects for the subsequent year. A lower discount rate increases the present value of benefit obligations and increases pension expense.

To determine the expected long-term rate of return on plan assets, we consider the current and expected asset allocations, as well as historical and expected returns on various categories of plan assets. Our determination of the reasonableness of our expected long-term rate of return on plan assets at December 31st is highly quantitative by nature and used to measure the earnings effects for the subsequent year. We evaluate the current asset allocations and expected returns under four sets of conditions: a maximum time available for each asset class; a common history where all asset class returns are computed with the same overall start date of January 1990; a 10-year historical return; and forecasted returns using the Black-Litterman method. Based upon the current asset allocation mix and the Black-Litterman method, the forecasted return is 5.40 percent. The actual return on plan assets from July 1, 1993 (inception) through December 31, 2019 was 8.46 percent and 8.32 percent for the U.S. hourly and salary pension plans, respectively.

Since over 75 percent of the plan assets are actively managed, we adjust the baseline forecasted return for the anticipated return differential from active over passive investment management and for any other items not already captured. We believe that the combination of long-term historical returns, along with the forecasted returns and manager alpha, supports the 6.5 percent rate of return assumption for 2020 based on the current asset allocation.

Sensitivity to changes in key assumptions based on year-end data is as follows:

- A change of 1.0 percent in the discount rate would change our annual pretax pension expense by approximately $3.5 million.
- A change of 1.0 percent in the expected long-term rate of return on plan assets would change annual pretax pension expense by approximately $3.2 million.

The cash balance interest crediting rate, which applies only to the U.S. Salaried Plan, enables us to calculate the benefit obligation through projecting future interest credits on cash balance accounts between the measurement date and a participant's assumed retirement date. The rate adjusts annually and is the 30-year Treasury rate in effect as of October in the preceding plan year, subject to a minimum of 5 percent. A lower cash balance interest crediting rate assumption decreases the benefit obligation and decreases pension expense.

Non-pension Post-retirement Assumptions

We use various actuarial assumptions, including the discount rate and the expected trend in healthcare costs, to estimate the costs and benefit obligations for our retiree welfare plan. The discount rate is determined based on high-quality fixed income investments that match the duration of expected retiree medical benefits at our December 31 measurement date. The discount rate at December 31 is used to measure the year-end benefit obligations and the earnings effects for the subsequent year.

The significant assumptions used at December 31st were as follows:

	U.S. Plans		Non-U.S. Plans	
	2019	2018	2019	2018
Net periodic benefit expense				
Discount rate	4.27%	3.60%	3.52%	3.26%
Non-pension post-retirement benefit obligation				
Discount rate	3.41%	4.27%	2.92%	3.52%
Weighted average assumed healthcare cost trend rates				
Healthcare cost trend rate assumed for next year	6.00%	6.25%	6.00%	6.25%
Ultimate healthcare trend rate	4.50%	5.00%	5.00%	5.00%
Year the ultimate healthcare trend rate is reached	2026	2024	2024	2024

Sensitivity to change in key assumptions is as follows:

- A change of 1.0 percent in the discount rate would not have a material impact on the non-pension post-retirement expense.
- A change of 1.0 percent in the healthcare trend rate would not have a material impact upon the non-pension post-retirement expense.

Income Taxes

We are subject to income taxes in the U.S. and various foreign jurisdictions. Management judgment is required in evaluating our tax positions and determining our provision for income taxes. Throughout the course of business, there are numerous transactions and calculations for which the ultimate tax determination is uncertain. When management believes certain tax positions may be challenged despite our belief that the tax return positions are supportable, we establish reserves for tax uncertainties based on estimates of whether additional taxes will be due. We adjust these reserves taking into consideration changing facts and circumstances, such as an outcome of a tax audit. The income tax provision includes the impact of reserve provisions and changes to reserves that are considered appropriate. Accruals for tax contingencies are provided for in accordance with the requirements of FASB ASC Topic 740 “Income Taxes”.

Income taxes are accounted for under the asset and liability method. Deferred income tax assets and liabilities are recognized for estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax attribute carry-forwards. Deferred income tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. FASB ASC 740 “Income Taxes,” requires that a valuation allowance be recorded when it is more likely than not that some portion or all of the deferred income tax assets will not be realized. Deferred income tax assets and liabilities are determined separately for each tax jurisdiction in which we conduct our operations or otherwise incur taxable income or losses.

Our European operations in the Netherlands incurred an operating loss in 2019, continue to be in cumulative loss positions in recent years, and have a history of tax loss carry-forwards expiring unused. In addition, European economic conditions continue to be unfavorable. Accordingly, management believes it is not more likely than not that the net deferred tax assets related to these operations will be realized and a valuation allowance continues to be recorded as of December 31, 2019. Management’s outlook regarding the future profitability of our China operations make it unlikely that any of its deferred tax assets will ever be utilized. As a result, a valuation allowance was recorded against the net deferred tax assets of our primary China subsidiary. Management concluded that it is not more likely than not that the disallowed interest expense for 2019 and 2018 can be fully utilized in future years. Accordingly, a partial valuation allowance has been recorded against the deferred tax asset related to the limitation on the U.S. deduction for interest expense. In addition, partial valuation allowances have been recorded against state operating loss carryforwards.

The Company and its subsidiaries are subject to examination by various countries’ tax authorities. These examinations may lead to proposed or assessed adjustments to our taxes. See note 7 to our Consolidated Financial Statements for a detailed discussion on tax contingencies.

Legal and Other Contingencies

We are involved from time to time in various legal proceedings and claims, including commercial or contractual disputes, product liability claims and environmental and other matters, that arise in the normal course of business. We routinely assess the likelihood of any adverse judgments or outcomes related to these matters, as well as ranges of probable losses, by consulting with internal personnel principally involved with such matters and with our outside legal counsel handling such matters. We have accrued for estimated losses in accordance with U.S. GAAP for those matters where we believe that the likelihood that a loss has occurred is probable and the amount of the loss is reasonably estimable. The determination of the amount of such reserves is based on knowledge and experience with regard to past and current matters and consultation with internal personnel principally involved with such matters and with our outside legal counsel handling such matters. The amount of such reserves may change in the future due to new developments or changes in circumstances. The inherent uncertainty related to the outcome of these matters can result in amounts materially different from any provisions made with respect to their resolution. Although we cannot predict the ultimate outcome of any of our proceedings, we believe that they will not have a material adverse impact on our financial condition, results of operations or liquidity.

See note 17 of the Consolidated Financial Statements for a discussion of environmental and other litigation matters.

New Accounting Standards

See note 2 of the Consolidated Financial Statements for a summary of the new accounting standards.

Item 7A. Qualitative and Quantitative Disclosures about Market Risk

Not applicable.

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Libbey Inc.
Toledo, Ohio

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Libbey Inc. and its subsidiaries (the “Company”) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), shareholders’ equity (deficit), and cash flows, for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2020 expressed an unqualified opinion on the Company’s internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 2 to the financial statements, effective January 1, 2019, the Company adopted FASB Accounting Standards Update 2016-02, *Leases* (Topic 842), using the modified retrospective approach.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ *DELOITTE & TOUCHE LLP*

Detroit, Michigan
February 27, 2020

We have served as the Company’s auditor since 2015.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Libbey Inc.
Toledo, Ohio

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Libbey Inc. and subsidiaries (the "Company") as of December 31, 2019, 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 Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company and our report dated February 27, 2020, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's adoption of a new accounting principle.

Basis for Opinion

The Company's management is responsible 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 Report of Management. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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/ *DELOITTE & TOUCHE LLP*

Detroit, Michigan
February 27, 2020

Libbey Inc.
Consolidated Balance Sheets

December 31, (dollars in thousands, except share amounts)	2019	2018
ASSETS		
Cash and cash equivalents	$ 48,918	$ 25,066
Accounts receivable — net	81,307	83,977
Inventories — net	174,797	192,103
Prepaid and other current assets	17,683	16,522
Total current assets	322,705	317,668
Pension asset	5,712	—
Purchased intangible assets — net	11,875	13,385
Goodwill	38,431	84,412
Deferred income taxes	24,747	26,090
Other assets	14,608	7,660
Operating lease right-of-use assets	54,686	—
Property, plant and equipment — net	233,923	264,960
Total assets	$ 706,687	$ 714,175
LIABILITIES AND SHAREHOLDERS' EQUITY (DEFICIT)		
Accounts payable	$ 79,262	$ 74,836
Salaries and wages	30,188	27,924
Accrued liabilities	50,657	43,728
Accrued income taxes	382	3,639
Pension liability (current portion)	2,543	3,282
Non-pension post-retirement benefits (current portion)	3,817	3,951
Operating lease liabilities (current portion)	12,769	—
Long-term debt due within one year	16,124	4,400
Total current liabilities	195,742	161,760
Long-term debt	375,716	393,300
Pension liability	46,619	45,206
Non-pension post-retirement benefits	45,507	43,015
Noncurrent operating lease liabilities	48,323	—
Deferred income taxes	2,104	2,755
Other long-term liabilities	18,463	18,246
Total liabilities	732,474	664,282
Contingencies (note 17)		
Shareholders' equity (deficit):		
Common stock, par value $.01 per share, 50,000,000 shares authorized, 22,360,125 shares issued in 2019 (22,157,220 shares issued in 2018)	224	222
Capital in excess of par value	338,395	335,517
Retained deficit	(240,460)	(171,441)
Accumulated other comprehensive loss	(123,946)	(114,405)
Total shareholders' equity (deficit)	(25,787)	49,893
Total liabilities and shareholders' equity (deficit)	$ 706,687	$ 714,175

See accompanying notes

Libbey Inc.
Consolidated Statements of Operations

Year ended December 31, (dollars in thousands, except per share amounts)	2019	2018
Net sales	$ 782,437	$ 797,858
Freight billed to customers	3,165	3,235
Total revenues	785,602	801,093
Cost of sales	631,393	646,202
Gross profit	154,209	154,891
Selling, general and administrative expenses	122,370	127,851
Asset impairments (note 4)	65,152	—
Income (loss) from operations	(33,313)	27,040
Other income (expense)	(4,443)	(2,764)
Earnings (loss) before interest and income taxes	(37,756)	24,276
Interest expense	22,510	21,979
Income (loss) before income taxes	(60,266)	2,297
Provision for income taxes	8,753	10,253
Net loss	$ (69,019)	$ (7,956)
Net loss per share:		
Basic	$ (3.08)	$ (0.36)
Diluted	$ (3.08)	$ (0.36)
Weighted average shares:		
Basic	22,419	22,180
Diluted	22,419	22,180
Dividends declared per share	$ —	$ 0.1175

See accompanying notes

Libbey Inc.
Consolidated Statements of Comprehensive Income (Loss)

Year ended December 31, (dollars in thousands)	2019	2018
Net loss	$ (69,019)	$ (7,956)
Other comprehensive income (loss):		
Pension and other post-retirement benefit adjustments, net of tax	932	1,041
Change in fair value of derivative instruments, net of tax	(8,566)	(2,942)
Foreign currency translation adjustments, net of tax	(1,907)	(7,057)
Other comprehensive income (loss), net of tax	(9,541)	(8,958)
Comprehensive income (loss)	$ (78,560)	$ (16,914)

See accompanying notes

Libbey Inc.
Consolidated Statements of Shareholders' Equity (Deficit)

(dollars in thousands, except share amounts)	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Retained Deficit	Accumulated Other Comprehensive Loss	Total
Balance December 31, 2017	22,018,010	$ 220	$ 333,011	$ (161,165)	$ (105,172)	$ 66,894
Cumulative-effect adjustment for the adoption of ASU 2017-12				275	(275)	—
Net loss				(7,956)		(7,956)
Other comprehensive loss					(8,958)	(8,958)
Stock compensation expense			2,746			2,746
Stock issued	139,210	2	96			98
Stock withheld for employee taxes			(336)			(336)
Dividends				(2,595)		(2,595)
Balance December 31, 2018	22,157,220	222	335,517	(171,441)	(114,405)	49,893
Net loss				(69,019)		(69,019)
Other comprehensive loss					(9,541)	(9,541)
Stock compensation expense			3,307			3,307
Stock issued	202,905	2	(9)			(7)
Stock withheld for employee taxes			(420)			(420)
Balance December 31, 2019	22,360,125	$ 224	$ 338,395	$ (240,460)	$ (123,946)	$ (25,787)

See accompanying notes

Libbey Inc.
Consolidated Statements of Cash Flows

Year ended December 31, (dollars in thousands)	**2019**	**2018**
Operating activities:		
Net loss	$ (69,019)	$ (7,956)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	39,046	44,333
Asset impairments (note 4)	65,152	—
Change in accounts receivable	2,336	5,203
Change in inventories	16,545	(6,424)
Change in accounts payable	9,202	(4,759)
Accrued interest and amortization of discounts and finance fees	1,173	1,158
Pension & non-pension post-retirement benefits, net	(376)	(283)
Accrued liabilities & prepaid expenses	4,350	267
Income taxes	(5,062)	3,591
Cloud computing costs	(4,188)	—
Share-based compensation expense	3,231	2,827
Other operating activities	1,042	(1,087)
Net cash provided by operating activities	63,432	36,870
Investing activities:		
Cash paid for property, plant and equipment	(31,159)	(45,087)
Net cash used in investing activities	(31,159)	(45,087)
Financing activities:		
Borrowings on ABL credit facility	93,171	129,769
Repayments on ABL credit facility	(95,601)	(109,901)
Other repayments	—	(3,077)
Repayments on Term Loan B	(4,400)	(4,400)
Stock options exercised	—	5
Taxes paid on distribution of equity awards	(420)	(336)
Dividends	—	(2,595)
Debt refinancing costs	(755)	—
Net cash provided by (used in) financing activities	(8,005)	9,465
Effect of exchange rate fluctuations on cash	(416)	(878)
Increase in cash	23,852	370
Cash & cash equivalents at beginning of year	25,066	24,696
Cash & cash equivalents at end of year	$ 48,918	$ 25,066
Supplemental disclosure of cash flow information:		
Cash paid during the year for interest, net of capitalized interest	$ 20,738	$ 20,091
Cash paid during the year for income taxes	$ 11,887	$ 8,514

See accompanying notes

Libbey Inc.
Notes to Consolidated Financial Statements

1. Description of the Business

Libbey is a leading global manufacturer and marketer of glass tableware products. We produce glass tableware in five countries and sell to customers in over 100 countries. We design and market, under our Libbey®, Libbey Signature®, Master's Reserve®, Crisa®, Royal Leerdam®, World® Tableware, Syracuse® China and Crisal Glass® brand names (among others), an extensive line of high-quality glass tableware, ceramic dinnerware and metal flatware for sale primarily in the foodservice, retail and business-to-business channels of distribution. Our sales force presents our tabletop products to the global marketplace in a coordinated fashion. We own and operate two glass tableware manufacturing plants in the United States as well as glass tableware manufacturing plants in Mexico (Libbey Mexico), the Netherlands (Libbey Holland), Portugal (Libbey Portugal) and China (Libbey China). In addition, we import tabletop products from overseas in order to complement our line of manufactured items. The combination of manufacturing and procurement allows us to compete in the global tabletop market by offering an extensive product line at competitive prices.

2. Significant Accounting Policies

Basis of Presentation The Consolidated Financial Statements include Libbey Inc. and its majority-owned subsidiaries (collectively, Libbey or the Company). Our fiscal year end is December 31st. The preparation of financial statements and related disclosures in conformity with United States generally accepted accounting principles (U.S. GAAP) requires management to make estimates and assumptions that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. Actual results could differ materially from management's estimates.

Revenue Recognition Our customer contracts generally include a single performance obligation, the shipment of specified products, and are recognized at a point in time when control of the product has transferred to the customer. Transfer of control primarily takes place when risk of loss transfers in accordance with applicable shipping terms. Revenue is recognized based on the consideration specified in a contract with the customer, and is measured as the amount of consideration to which we expect to be entitled in exchange for transferring goods or providing services. When applicable, the transaction price includes estimates of variable consideration. We estimate provisions for rebates, customer incentives, allowances, returns and discounts based on the terms of the contracts, historical experience and anticipated customer purchases during the rebate period as sales occur. We continually evaluate the adequacy of these methods used, adjusting our estimates when the amount of consideration to which we expect to be entitled changes. Refund liabilities are included in accrued liabilities on the Consolidated Balance Sheet. Our payment terms are based on customary business practices and can vary by region and customer type, but are generally 0-90 days. Since the term between invoicing and expected payment is less than a year, we do not adjust the transaction price for the effects of a financing component. Taxes collected from customers are excluded from revenues and credited directly to obligations to the appropriate governmental agencies. For contracts with a duration of less than one year, we follow an allowable practical expedient and expense contract acquisition costs when incurred. We do not have any costs to obtain or fulfill a contract that are capitalized under ASC Topic 340-40. For further discussion see note 18.

Cost of Sales Cost of sales includes cost to manufacture and/or purchase products, warehouse, shipping and delivery costs and other costs. Shipping and delivery costs associated with outbound freight after control of a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of sales. In addition, reimbursement of certain pre-production costs is considered a development activity and is included in cost of sales.

Cash and Cash Equivalents We consider all highly liquid investments purchased with an original or remaining maturity of less than three months at the date of purchase to be cash equivalents. Cash and cash equivalents are maintained with various financial institutions. Outstanding checks in excess of funds on deposit are included in accounts payable or accrued liabilities, depending on the nature of the payment.

Accounts Receivable and Allowance for Doubtful Accounts We record trade receivables when revenue is recorded in accordance with our revenue recognition policy and relieve accounts receivable when payments are received from customers. The allowance for doubtful accounts is established through charges to the provision for bad debts. We regularly evaluate the adequacy of the allowance for doubtful accounts based on historical trends in collections and write-offs, our judgment as to the probability of collecting accounts and our evaluation of business risk. This evaluation is inherently subjective, as it requires estimates that are susceptible to revision as more information becomes available. Accounts are determined to be uncollectible when the debt is deemed to be worthless or only recoverable in part and are written off at that time through a charge against the allowance. Generally, we do not require collateral on our accounts receivable.

Inventory Valuation Inventories are valued at the lower of cost or market. The last-in, first-out (LIFO) method is used for our U.S. glass inventories, which represented 34.3 percent and 34.9 percent of our total inventories in 2019 and 2018, respectively. The remaining inventories are valued using either the first-in, first-out (FIFO) or average cost method. For those inventories valued on the LIFO method, the excess of FIFO cost over LIFO, was $16.6 million and $15.9 million in 2019 and 2018, respectively. Cost includes the cost of materials, direct labor, in-bound freight and the applicable share of manufacturing overhead.

Purchased Intangible Assets and Goodwill Financial Accounting Standards Board Accounting Standards Codification® ("FASB ASC") Topic 350 - "Intangibles-Goodwill and other" ("FASB ASC 350") requires goodwill and purchased indefinite life intangible assets to be reviewed for impairment annually, or more frequently if impairment indicators arise. Intangible assets with lives restricted by contractual, legal or other means will continue to be amortized over their useful lives. As of October 1st of each year, we update our separate impairment evaluations for both goodwill and indefinite life intangible assets. For further disclosure on goodwill and intangibles, see note 4.

Software We account for software in accordance with FASB ASC 350. Software represents the costs of internally developed and/or purchased software for internal use. Capitalized costs include software packages, installation and internal labor costs of employees devoted to the software development project. Costs incurred to modify existing software, providing significant enhancements and creating additional functionality are also capitalized. Once a project is complete, we estimate the useful life of the internal-use software, generally amortizing these costs over a 3 to 10 year period. Software is classified on the Consolidated Balance Sheet in property, plant and equipment, and the related cash flows are shown as cash outflows from investing activities.

Cloud Computing Arrangements We account for implementation costs for software that we gain access to in hosted cloud computing arrangements in accordance with FASB ASC 350. Capitalized costs of hosted cloud computing arrangements include configuration, installation, other upfront costs and internal labor costs of employees devoted to the cloud computing software implementation project. Once a project is complete, amortization is computed using the straight-line method over the term of the associated hosting arrangement, generally 3 to 10 years. In connection with our adoption of Accounting Standards Update (ASU) 2018-15 on January 1, 2019, these implementation costs are now classified on the Consolidated Balance Sheet in prepaid and other current assets and other assets, and the related cash flows are presented as cash outflows from operations. Prior to January 1, 2019, implementation costs were included in property, plant and equipment, and the related cash flows were shown as cash outflows from investing activities. See *New Accounting Standards - Adopted* below. Our cloud computing arrangements primarily relate to our new global enterprise resource planning (ERP) system. At December 31, 2019, the net book value of these implementation costs included $0.3 million in prepaid and other current assets and $6.5 million in other assets on the Consolidated Balance Sheet. Expense for 2019 was immaterial.

Leases We determine if an arrangement is a lease at inception. As of January 1, 2019, operating leases are included in operating lease right-of-use (ROU) assets, current operating lease liabilities and noncurrent operating lease liabilities in our Consolidated Balance Sheet; related payments are included in operating activities on the Consolidated Statement of Cash Flows. We currently do not have any finance leases; but, if we do in the future, we will include them in property, plant and equipment, long-term debt due within one year and long-term debt within our Consolidated Balance Sheet.

ROU assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the lease commencement date based on the estimated present value of lease payments over the lease term.

When our leases do not provide an implicit rate, we use our incremental borrowing rate, which is derived from information available at the lease commencement date, in determining the present value of lease payments. We give consideration to our secured borrowing rates as well as publicly available data for instruments with a similar term in a similar environment when calculating our incremental borrowing rates.

The operating lease ROU asset also includes any lease prepayments made before commencement or in advance of the payment due date. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Leases with a term of 12 months or less (short-term leases) are not recorded on our Consolidated Balance Sheet. Our lease agreements do not contain any residual value guarantees or material restrictive covenants. Lease expense for lease payments is recognized on a straight-line basis over the lease term. Variable lease costs represent the incremental change in lease payments associated with an indexed rate (i.e. Consumers Price Index), and these costs are not included in the lease liability on the Consolidated Balance Sheet because they are unknown at commencement date.

We have lease agreements with lease and non-lease components. Non-lease components for real estate leases relate primarily to common area maintenance, insurance, taxes and utilities associated with the properties. For real estate leases and a limited class of equipment leases, we account for the lease and non-lease components separately. Non-lease components are not recorded on the Consolidated Balance Sheet as a ROU asset and lease liability and are not included in lease costs. For all other equipment leases, we account for the lease and non-lease components as a single lease component.

See *New Accounting Standards - Adopted* below for the adoption impact of this lease accounting standard.

Property, Plant and Equipment Property, plant and equipment are stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, generally 3 to 14 years for equipment and furnishings and 10 to 40 years for buildings and improvements. Maintenance and repairs are expensed as incurred.

Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Measurement of an impairment loss for long-lived assets that we expect to hold and use is based on the fair value of the asset. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value less costs to sell. See note 5 for further disclosure.

Self-Insurance Reserves Self-insurance reserves reflect the estimated liability for group health and workers' compensation claims not covered by third-party insurance. We accrue estimated losses based on actuarial models and assumptions as well as our historical loss experience. Workers' compensation accruals are recorded at the estimated ultimate payout amounts based on individual case estimates. In addition, we record estimates of incurred-but-not-reported losses based on actuarial models.

Pension and Non-pension Post-retirement Benefits We account for pension and non-pension post-retirement benefits in accordance with FASB ASC Topic 715 - "Compensation-Retirement Benefits" ("FASB ASC 715"). FASB ASC 715 requires recognition of the over-funded or under-funded status of pension and other post-retirement benefit plans on the balance sheet. Under FASB ASC 715, gains and losses, prior service costs and credits and any remaining prior transaction amounts that have not yet been recognized through net periodic benefit cost are recognized in accumulated other comprehensive loss, net of tax effect where appropriate. The service cost component of pension and post-retirement benefit costs is reported within income from operations while the non-service cost components of net benefit cost (interest costs, expected return on assets, amortization of prior service costs, settlement charges and other costs) are recorded in other income (expense).

The U.S. pension plans cover the salaried U.S.-based employees of Libbey hired before January 1, 2006, and over half of the hourly U.S.-based employees. Hourly employees hired at Shreveport after December 15, 2008, and at Toledo after September 30, 2010, are not eligible to participate. Effective January 1, 2013, we ceased annual company contribution credits to the cash balance accounts in our Libbey U.S. Salaried Pension Plan and SERP. The non-U.S. pension plans cover the employees of our wholly-owned subsidiary in Mexico. For further discussion see note 8.

We also provide certain post-retirement healthcare and life insurance benefits covering substantially all U.S. and Canadian salaried employees hired before January 1, 2004 and over half of our union hourly employees. Hourly employees hired at Shreveport after December 15, 2008, and at Toledo after September 30, 2010, are not eligible to participate. Employees are generally eligible for benefits upon reaching a certain age and completion of a specified number of years of creditable service. Benefits for most hourly retirees are determined by collective bargaining. Under a cross-indemnity agreement, Owens-Illinois, Inc. assumed liability for the non-pension, post-retirement benefit of our retirees who had retired as of June 24, 1993. Therefore, the benefits related to these retirees are not included in our liability. For further discussion see note 9.

Income Taxes Income taxes are accounted for under the asset and liability method. Deferred income tax assets and liabilities are recognized for estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax attribute carry-forwards. Deferred income tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred income tax assets will not be realized. Deferred income tax assets and liabilities are determined separately for each tax paying component in which we conduct our operations or otherwise incur taxable income or losses.

We are subject to income taxes in the U.S. and various foreign jurisdictions. Management judgment is required in evaluating our tax positions and determining our provision for income taxes. Throughout the course of business, there are numerous transactions and calculations for which the ultimate tax determination is uncertain. When management believes uncertain tax positions may be challenged despite our belief that the tax return positions are supportable, we record unrecognized tax benefits as liabilities in accordance with the requirements of ASC 740. When our judgment with respect to these uncertain tax positions changes as a result of a change in facts and circumstances, such as the outcome of a tax audit, we adjust these liabilities through increases or decreases to the income tax provision. For further discussion see note 7.

Derivatives We account for derivatives in accordance with FASB ASC Topic 815 "Derivatives and Hedging" ("FASB ASC 815"). We hold derivative financial instruments to hedge certain of our interest rate risks associated with long-term debt and commodity price risks associated with forecasted future natural gas requirements. These derivatives qualify for hedge accounting since the hedges are highly effective, and we have designated and documented contemporaneously the hedging relationships involving these derivative instruments. While we intend to continue to meet the conditions for hedge accounting, if we do not believe that forecasted transactions would occur, the changes in the fair value of the derivatives used as hedges would be reflected in earnings. Cash flows from hedges of debt, interest rate swaps and natural gas contracts are classified as operating activities. For further discussion see note 12.

Environmental In accordance with U.S. GAAP, we recognize environmental clean-up liabilities on an undiscounted basis when loss is probable and can be reasonably estimated. The cost of the clean-up is estimated by financial and legal specialists based on current law. Such estimates are based primarily upon the estimated cost of investigation and remediation required, and the likelihood that, where applicable, other potentially responsible parties will not be able to fulfill their commitments at the sites where the Company may be jointly and severally liable.

Foreign Currency Translation Assets and liabilities of non-U.S. subsidiaries that operate in a local currency environment, where that local currency is the functional currency, are translated to U.S. dollars at exchange rates in effect at the balance sheet date, with the resulting translation adjustments directly recorded to a separate component of accumulated other comprehensive loss. Income and expense accounts are translated at average exchange rates during the year. The effect of exchange rate changes on transactions denominated in currencies other than the functional currency is recorded in other income (expense). For further detail see note 16.

Stock-Based Compensation Expense We account for stock-based compensation expense in accordance with FASB ASC Topic 718, "Compensation — Stock Compensation," ("FASB ASC 718") and FASB ASC Topic 505-50, "Equity-Based Payments to Non-Employees" ("FASB ASC 505-50"). Stock-based compensation cost is measured based on the fair value of the equity instruments issued. FASB ASC 718 and 505-50 apply to all of our outstanding, unvested, stock-based payment awards.

Treasury Stock Treasury stock purchases are recorded at cost. During 2019 and 2018, we did not purchase treasury stock. At December 31, 2019, we had 941,250 shares of common stock available for repurchase, as authorized by our Board of Directors.

Research and Development Research and development costs are charged to selling, general and administrative expense in the Consolidated Statements of Operations when incurred. Expenses for 2019 and 2018 were $3.1 million and $3.6 million, respectively.

Advertising Costs We expense all advertising costs as incurred. Expenses for 2019 and 2018 were $5.0 million and $6.1 million, respectively.

Computation of Earnings (Loss) Per Share of Common Stock Basic earnings (loss) per share of common stock is computed using the weighted average number of shares of common stock outstanding during the period. Diluted earnings (loss) per share of common stock is computed using the weighted average number of shares of common stock outstanding plus the dilutive effects of equity-based compensation outstanding during the period using the treasury stock method.

New Accounting Standards - Adopted

Each change to U.S. GAAP is established by the FASB in the form of an ASU to the FASB's ASC. We consider the applicability and impact of all ASUs. ASUs not listed below were assessed and either were determined to be not applicable or are expected to have minimal impact on the Company's Consolidated Financial Statements.

In February 2016, the FASB issued ASU 2016-02, *Leases* (Topic 842), which requires a lessee to recognize on the balance sheet ROU assets and corresponding liabilities for both finance and operating leases with lease terms greater than 12 months. On January 1, 2019, we adopted this standard using the optional transition method of applying the modified retrospective approach at our adoption date. Under this method, previously reported comparative periods prior to 2019 have not been restated. We have elected the package of practical expedients permitted under the transition guidance, which allowed us to carry forward our prior conclusions on existing contracts for lease identification, lease classification and initial direct costs. In addition, for most of our classes of equipment leases, we elected the practical expedient to not separate lease and non-lease components. We also made an accounting policy election to keep leases with a term of 12 months or less off of the balance sheet for all classes of underlying assets. At adoption, we had operating leases which resulted in us recognizing operating ROU assets and lease liabilities on the balance sheet of approximately $69 million. The adoption of this ASU did not have a material impact on our consolidated results of operations or cash flows, and there was no cumulative effect adjustment to retained earnings. The new standard also required additional disclosures which are included in note 15.

On January 1, 2019, we early adopted ASU 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software* (Subtopic 350-40): *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*. This standard aligns the requirements for capitalizing implementation costs in a cloud computing arrangement service contract with the requirements for capitalizing implementation costs incurred for internal-use software. The new guidance also prescribes the balance sheet, income statement and cash flow classification of the capitalized implementation costs and related amortization expense, and requires additional quantitative and qualitative disclosures. Prior to January 1, 2019, implementation costs for cloud computing arrangements were capitalized into property, plant and equipment and amortized on a straight-line basis. Upon adoption of this new standard, we reclassed $2.8 million from construction in progress within property, plant, and equipment to other assets. When implementation projects are completed and amortization of capitalized costs begins, a portion is recorded in prepaids and other current assets. Results and disclosures for reporting periods beginning on or after January 1, 2019, are presented under the new guidance within ASU 2018-15, while prior period amounts and disclosures are not adjusted and continue to be reported in accordance with our previous accounting.

New Accounting Standards - Not Yet Adopted

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses* (Topic 326): *Measurement of Credit Losses on Financial Instruments*. This standard introduces a new approach to estimating credit losses on certain types of financial instruments, including trade receivables, and modifies the impairment model for available-for-sale debt securities. ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, with early application permitted. In October of 2019, the FASB approved a delayed effective date for Smaller Reporting Company filers; thus, our effective date is now for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Although we are still evaluating the impact of this standard, we believe it will not have a material impact on our Consolidated Financial Statements.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes* (Topic 740): *Simplifying the Accounting for Income Taxes*. This standard simplifies the accounting for income taxes by removing certain exceptions in Topic 740 and simplifying other areas. ASU 2019-12 is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. If early adoption is elected, all amendments must be adopted in the same period. We are currently assessing the impact that this standard will have on our Consolidated Financial Statements.

3. Balance Sheet Details

The following table provides detail of selected balance sheet items:

December 31, **(dollars in thousands)**	**2019**	**2018**
Accounts receivable:		
Trade receivables	$ 79,829	$ 82,521
Other receivables	1,478	1,456
Total accounts receivable, less allowances of $10,803 and $8,538	$ 81,307	$ 83,977
Inventories:		
Finished goods	$ 157,348	$ 175,074
Work in process	1,183	1,363
Raw materials	4,008	4,026
Repair parts	10,254	10,116
Operating supplies	2,004	1,524
Total inventories, less loss provisions of $7,750 and $9,453	$ 174,797	$ 192,103
Accrued liabilities:		
Accrued incentives	$ 24,337	$ 19,359
Other accrued liabilities	26,320	24,369
Total accrued liabilities	$ 50,657	$ 43,728

4. Purchased Intangible Assets and Goodwill

Purchased Intangibles

Changes in purchased intangibles balances are as follows:

(dollars in thousands)	2019	2018
Beginning balance	$ 13,385	$ 14,565
Amortization	(560)	(1,049)
Impairment *(see below)*	(900)	—
Foreign currency impact	(50)	(131)
Ending balance	$ 11,875	$ 13,385

Purchased intangible assets are composed of the following:

December 31, (dollars in thousands)	2019	2018
Indefinite life intangible assets	$ 11,104	$ 12,035
Definite life intangible assets, net of accumulated amortization of $20,507 and $20,006	771	1,350
Total	$ 11,875	$ 13,385

Indefinite life intangible assets are composed of trade names and trademarks that have an indefinite life and are therefore individually tested for impairment on an annual basis, or more frequently in certain circumstances where impairment indicators arise, in accordance with FASB ASC 350. Our on-going assessment of goodwill as of June 30, 2019 resulted in the need to test Libbey Holland's indefinite life intangible asset (Royal Leerdam® trade name) for impairment. We used a relief from royalty method to determine the fair market value that was compared to the carrying value of the indefinite life intangible asset. The sales forecast for Royal Leerdam® branded product was lowered due to declining performance of mid-tier retailers as consumers in EMEA move to discount and on-line retailers. As a result, the estimated fair value was determined to be lower than the carrying value, and we recorded a non-cash impairment charge of $0.9 million during the second quarter of 2019 in our EMEA reporting segment. The inputs used for this analysis are considered Level 3 inputs in the fair value hierarchy. See note 14 for further discussion of the fair value hierarchy. Our annual impairment testing on October 1, 2019 and 2018 did not indicate impairment of our indefinite life intangible assets.

The remaining definite life intangible asset at December 31, 2019 consists of customer relationships that is amortized over 20 years with a remaining life of 5.0 years. Amortization expense for definite life intangible assets was $0.6 million and $1.0 million for years 2019 and 2018, respectively.

Future estimated amortization expense of definite life intangible assets is as follows (dollars in thousands):

2020	2021	2022	2023	2024
$154	$154	$154	$154	$154

Goodwill

Changes in goodwill balances are as follows:

(dollars in thousands)	2019 U.S. & Canada	2019 Latin America	2019 Total	2018 U.S. & Canada	2018 Latin America	2018 Total
Beginning balance:						
Goodwill	$ 43,872	$ 125,681	$ 169,553	$ 43,872	$ 125,681	$ 169,553
Accumulated impairment losses	(5,441)	(79,700)	(85,141)	(5,441)	(79,700)	(85,141)
Net beginning balance	38,431	45,981	84,412	38,431	45,981	84,412
Impairment	—	(45,981)	(45,981)	—	—	—
Ending balance:						
Goodwill	43,872	125,681	169,553	43,872	125,681	169,553
Accumulated impairment losses	(5,441)	(125,681)	(131,122)	(5,441)	(79,700)	(85,141)
Net ending balance	$ 38,431	$ —	$ 38,431	$ 38,431	$ 45,981	$ 84,412

Goodwill impairment tests are completed for each reporting unit on an annual basis, or more frequently in certain circumstances where impairment indicators arise. The inputs used for this analysis are considered Level 2 and Level 3 inputs in the fair value hierarchy. See note 14 for further discussion of the fair value hierarchy.

As part of our on-going assessment of goodwill at June 30, 2019, we determined that a triggering event occurred due to the Company's market capitalization being less than the carrying value, resulting from the significant decline in the Company's share price during the quarter. Thus, an interim impairment test was performed as of June 30, 2019. Additionally, during the second quarter, management updated its long-range plan; the updated plan contemplated lower sales and profitability within the Mexico reporting unit (within the Latin America reporting segment) as compared to the projections used in the goodwill impairment testing performed as of October 1, 2018. As the impairment testing indicated that the carrying value of the Mexico reporting unit exceeded its fair value, we recorded a non-cash impairment charge of $46.0 million during the second quarter of 2019. After recording the impairment charge, there is no longer any goodwill on the balance sheet related to the Mexico acquisition.

When performing our test for impairment, we measure each reporting unit's fair value using a combination of " income" and "market" approaches on a shipping point basis. The income approach calculates the fair value of the reporting unit based on a discounted cash flow analysis, incorporating the weighted average cost of capital of a hypothetical third-party buyer. Significant estimates in the income approach include the following: discount rate; expected financial outlook and profitability of the reporting unit's business; and foreign currency impacts (Level 3 inputs). Discount rates use the weighted average cost of capital for companies within our peer group, adjusted for specific company risk premium factors. The market approach uses the "Guideline Company" method, which calculates the fair value of the reporting unit based on a comparison of the reporting unit to comparable publicly traded companies. Significant estimates in the market approach model include identifying similar companies with comparable business factors such as size, growth, profitability, risk and return on investment, assessing comparable multiples, as well as consideration of control premiums (Level 2 inputs). The blended approach assigns a 70 percent weighting to the income approach and 30 percent to the market approach (Level 3 input). The higher weighting is given to the income approach due to some limitations of publicly available peer information used in the market approach. The blended fair value of both approaches is then compared to the carrying value, and to the extent that fair value exceeds the carrying value, no impairment exists. However, to the extent the carrying value exceeds the fair value, an impairment is recorded.

The results of our October 1, 2019 and 2018 annual impairment reviews did not indicate an impairment of goodwill. There were no indicators of impairment in our remaining reporting unit with goodwill at December 31, 2019.

For the year ended December 31, 2019, asset impairments on the Consolidated Statement of Operations includes the following (dollars in thousands):

Balance sheet location	Notes	Segment	Impairment
Goodwill	Note 4	Latin America	$ 45,981
Purchased intangible assets - net	Note 4	EMEA	900
Property, plant and equipment - net	Note 5	EMEA	12,956
Operating lease right-of-use assets	Notes 5 & 15	EMEA	5,315
Total asset impairments			$ 65,152

5. Property, Plant and Equipment

Property, plant and equipment consists of the following:

December 31, (dollars in thousands)	2019	2018
Land	$ 16,515	$ 20,374
Buildings	100,730	109,470
Machinery and equipment	486,517	531,838
Furniture and fixtures	15,594	15,668
Software	22,440	25,218
Construction in progress	18,628	24,945
Gross property, plant and equipment	660,424	727,513
Less accumulated depreciation	426,501	462,553
Net property, plant and equipment	$ 233,923	$ 264,960

Depreciation expense was $38.4 million and $43.2 million for the years 2019 and 2018, respectively.

In accordance with FASB ASC 360, management concluded an impairment assessment for the Libbey Holland asset group (within our EMEA segment) was necessary, and it was performed as of December 31, 2019. The recoverability test failed and, therefore, the Libbey Holland asset group was written down to estimated fair value, utilizing both an income approach using a present value technique and a market approach whereby multiple cash flow scenarios reflecting a range of possible outcomes with varying probability weightings are relied upon. The inputs used for this analysis are considered Level 3 inputs in the fair value hierarchy. See note 14 for further discussion of the fair value hierarchy. As a result, Libbey Holland property, plant and equipment and operating lease right-of-use assets were written down $13.0 million and $5.3 million, respectively, at December 31, 2019. See note 4 for a reconciliation of 2019 non-cash asset impairments to the asset impairments line on the Consolidated Statements of Operations.

6. Borrowings

Borrowings consist of the following:

December 31, (dollars in thousands)	Interest Rate	Maturity Date	2019	2018
Borrowings under ABL Facility	floating (2)	December 7, 2022 (1)	$ 17,386	$ 19,868
Term Loan B	floating (3)	April 9, 2021	375,800	380,200
Total borrowings			393,186	400,068
Less — unamortized discount and finance fees			1,346	2,368
Total borrowings — net			391,840	397,700
Less — long term debt due within one year			16,124	4,400
Total long-term portion of borrowings — net			$ 375,716	$ 393,300

(1) Maturity date will be January 9, 2021, if Term Loan B is not refinanced by this date.
(2) The interest rate on the ABL Facility borrowings was 1.75 percent at December 31, 2019.
(3) See interest rate swaps under "Term Loan B" below and note 12.

Annual maturities for all of our total borrowings for the next five years and beyond are as follows:

2020	2021	2022	2023	2024	Thereafter
$16,124	$359,676	$17,386	$—	$—	$—

Amended and Restated ABL Credit Agreement

Libbey Glass and Libbey Europe entered into an Amended and Restated Credit Agreement, dated as of February 8, 2010 and amended as of April 29, 2011, May 18, 2012, April 9, 2014 and December 7, 2017 (as amended, the ABL Facility), with a group of four financial institutions. The ABL Facility provides for borrowings of up to $100.0 million, subject to certain borrowing base limitations, reserves and outstanding letters of credit.

All borrowings under the ABL Facility are secured by:

- a first-priority security interest in substantially all of the existing and future personal property of Libbey Glass and its domestic subsidiaries (ABL Priority Collateral);
- a first-priority security interest in:
  - 100 percent of the stock of Libbey Glass and 100 percent of the stock of substantially all of Libbey Glass's present and future direct and indirect domestic subsidiaries;
  - 100 percent of the non-voting stock of substantially all of Libbey Glass's first-tier present and future foreign subsidiaries; and
  - 65 percent of the voting stock of substantially all of Libbey Glass's first-tier present and future foreign subsidiaries;
- a first-priority security interest in substantially all proceeds and products of the property and assets described above; and
- a second-priority security interest in substantially all of the owned real property, equipment and fixtures in the United States of Libbey Glass and its domestic subsidiaries, subject to certain exceptions and permitted liens (Term Priority Collateral).

Additionally, borrowings by Libbey Europe under the ABL Facility are secured by:

- a first-priority lien on substantially all of the existing and future real and personal property of Libbey Europe and its Dutch subsidiaries; and
- a first-priority security interest in:
  - 100 percent of the stock of Libbey Europe and 100 percent of the stock of substantially all of the Dutch subsidiaries; and
  - 100 percent (or a lesser percentage in certain circumstances) of the outstanding stock issued by the first-tier foreign subsidiaries of Libbey Europe and its Dutch subsidiaries.

Swingline borrowings are limited to $10.0 million, with swingline borrowings for Libbey Europe being limited to the U.S. equivalent of $5.0 million. Loans comprising each CBFR (CB Floating Rate) Borrowing, including each Swingline Loan, bear interest at the CB Floating Rate plus the Applicable Rate, and euro-denominated swingline borrowings (Eurocurrency Loans) bear interest calculated at the Netherlands swingline rate, as defined in the ABL Facility, subject to a LIBOR floor of 0.0 percent. The Applicable Rates for CBFR Loans and Eurocurrency Loans vary depending on our aggregate remaining availability. The Applicable Rates for CBFR Loans and Eurocurrency Loans were 0.75 percent and 1.75 percent, respectively, at December 31, 2019. Libbey pays a quarterly Commitment Fee, as defined by the ABL Facility, on the total credit provided under the ABL Facility. The Commitment Fee was 0.25 percent at December 31, 2019. No compensating balances are required by the ABL Facility. The ABL Facility does not require compliance with a fixed charge coverage ratio covenant, unless aggregate unused availability falls below $10.0 million. If our aggregate unused ABL availability were to fall below $10.0 million, the fixed charge coverage ratio requirement would be 1:00 to 1:00. Libbey Glass and Libbey Europe have the option to increase the ABL Facility by $25.0 million. At December 31, 2019, Libbey Europe had outstanding borrowings under the ABL Facility of $17.4 million, and Libbey Glass had no outstanding borrowings. At December 31, 2018, Libbey Glass and Libbey Europe had outstanding borrowings under the ABL Facility of $3.5 million and $16.4 million, respectively. Interest is payable on the last day of the interest period, which can range from one month to six months depending on the maturity of each individual borrowing on the ABL facility.

The borrowing base under the ABL Facility is determined by a monthly analysis of the eligible accounts receivable and inventory. The borrowing base is the sum of (a) 85 percent of eligible accounts receivable and (b) the lesser of (i) 85 percent of the net orderly liquidation value (NOLV) of eligible inventory, (ii) 65 percent of eligible inventory, or (iii) $75.0 million.

The ABL Facility also provides for the issuance of up to $15.0 million of letters of credit that, when outstanding, are applied against the $100.0 million limit. At December 31, 2019, $10.0 million in letters of credit and other reserves were outstanding. Remaining unused availability under the ABL Facility was $68.2 million at December 31, 2019, compared to $71.6 million under the ABL Facility at December 31, 2018.

Term Loan B

On April 9, 2014, Libbey Glass consummated its $440.0 million Senior Secured Term Loan B of Libbey Glass due 2021 (Term Loan B). The net proceeds of the Term Loan B were $438.9 million, after the 0.25 percent original issue discount of $1.1 million. The Term Loan B had related fees of approximately $6.7 million that will be amortized to interest expense over the life of the loan.

The Term Loan B is evidenced by a Senior Secured Credit Agreement, dated April 9, 2014 (Credit Agreement), between Libbey Glass, the Company, the domestic subsidiaries of Libbey Glass listed as guarantors therein (Subsidiary Guarantors and together with the Company, Guarantors), and the lenders. Under the terms of the Credit Agreement, aggregate principal of $1.1 million is due on the last business day of each quarter. The Term Loan B bears interest at the rate of LIBOR plus 3.0 percent, subject to a LIBOR floor of 0.75 percent. The interest rate was 4.71 percent per year at December 31, 2019 and 5.39 percent at December 31, 2018, and will mature on April 9, 2021. Although the Credit Agreement does not contain financial covenants, the Credit Agreement contains other covenants that restrict the ability of Libbey Glass and the Guarantors to, among other things:

- incur, assume or guarantee additional indebtedness;
- pay dividends, make certain investments or other restricted payments;
- create liens;
- enter into affiliate transactions;
- merge or consolidate, or otherwise dispose of all or substantially all the assets of Libbey Glass and the Guarantors; and
- transfer or sell assets.

We may voluntarily prepay, in whole or in part, the Term Loan B without premium or penalty but with accrued interest. Beginning with the year-ended December 31, 2015, the Credit Agreement requires us to make an annual mandatory prepayment offer to lenders of 0.0 to 50.0 percent of our excess cash flow, depending on our excess cash flow and leverage ratios as defined in the Credit Agreement. The calculation is made at the end of each year and the mandatory prepayment offer to lenders is made no later than ten business days after the filing of our annual compliance certificate to the lenders. The amount of any required mandatory prepayment offer is reduced by the amounts of any optional prepayments we made during the applicable year or prior to the prepayment offer in the year the offer is required to be made. The anticipated payment associated with our 2019 financial results is included in long-term debt due within one year on the Consolidated Balance Sheet.

The Credit Agreement provides for customary events of default, including cross default with the ABL Facility. In the case of an event of default as defined in the Credit Agreement, all of the outstanding Term Loan B will become due and payable immediately without further action or notice. The Term Loan B and the related guarantees under the Credit Agreement are secured by (i) first priority liens on the Term Priority Collateral and (ii) second priority liens on the ABL Collateral.

On April 1, 2015 and September 24, 2018, we executed interest rate swaps on our Term Loan B as part of our risk management strategy to mitigate the risks involved with fluctuating interest rates. The interest rate swaps effectively convert a portion of our Term Loan B debt from a variable interest rate to a fixed interest rate, thus reducing the impact of interest rate changes on future income. See note 12 for further discussion on the interest rate swaps.

Libbey Mexico Line of Credit

On June 17, 2019, Crisa Libbey Mexico S. de R.L. de C.V. entered into a $3.0 million working capital line of credit with Banco Santander Mexico to cover seasonal working capital needs, guaranteed by its parent company, Libbey Mexico, S. de R.L. de C.V. The line of credit matures on December 14, 2020, and has a floating interest rate of LIBOR plus 3.20 percent. At December 31, 2019, there were no borrowings under this line of credit. Interest with respect to borrowings on the line of credit is due monthly.

AICEP Loan

From time to time since July 2012, Libbey Portugal has entered into loan agreements with Agencia para Investmento Comercio Externo de Portugal, EPE (AICEP), the Portuguese Agency for investment and external trade. This loan was fully repaid in July 2018, and the interest rate was 0.0 percent.

Notes Payable

We have an overdraft line of credit for a maximum of €0.8 million. At December 31, 2019 and 2018, there were no borrowings under the facility, which had an interest rate of 1.50 percent. Interest with respect to the note is paid monthly.

7. Income Taxes

The provisions for income taxes were calculated based on the following components of income (loss) before income taxes:

Year ended December 31, **(dollars in thousands)**	**2019**	**2018**
United States	$ (6,405)	$ (12,682)
Non-U.S.	(53,861)	14,979
Total income (loss) before income taxes	$ (60,266)	$ 2,297

The current and deferred provisions (benefit) for income taxes were:

Year ended December 31, **(dollars in thousands)**	**2019**	**2018**
Current:		
U.S. federal	$ 1,011	$ 1,945
Non-U.S.	5,142	6,780
U.S. state and local	326	694
Total current income tax provision	6,479	9,419
Deferred:		
U.S. federal	576	687
Non-U.S.	1,645	310
U.S. state and local	53	(163)
Total deferred income tax provision	2,274	834
Total:		
U.S. federal	1,587	2,632
Non-U.S.	6,787	7,090
U.S. state and local	379	531
Total income tax provision	$ 8,753	$ 10,253

U.S. income and foreign withholding taxes have not been recognized on the excess of the amount for financial reporting over the tax basis of investments in foreign subsidiaries that is indefinitely reinvested outside of the United States. This amount becomes taxable upon a repatriation of assets from the subsidiary or a sale or liquidation of the subsidiary. There were no such temporary differences as of December 31, 2019. At December 31, 2018, the temporary differences totaled $14.6 million and the unrecognized deferred income tax liability was $3.0 million.

Reconciliation from the statutory U.S. federal income tax rate to the consolidated effective income tax rate was as follows:

Year ended December 31,	**2019**	**2018**
Statutory U.S. federal income tax rate	21.0%	21.0%
Increase (decrease) in rate due to:		
Non-U.S. income tax differential	0.2	19.9
U.S. state and local income taxes, net of related U.S. federal income taxes	0.3	22.6
U.S. federal credits	1.4	(9.8)
Permanent adjustments	(1.9)	27.7
Foreign withholding taxes	(1.0)	75.9
Valuation allowances	(9.6)	143.5
Unrecognized tax benefits	0.7	48.4
Impact of foreign exchange	(1.6)	71.6
Asset impairments	(17.6)	—
Other	(6.4)	25.6
Consolidated effective income tax rate	(14.5)%	446.4%

Deferred income tax assets and liabilities: Deferred income tax assets and liabilities result from temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and from income tax carryovers and credits. The significant components of our deferred income tax assets and liabilities are as follows:

December 31, (dollars in thousands)	2019	2018
Deferred income tax assets:		
Pension	$ 7,510	$ 9,722
Non-pension post-retirement benefits	12,271	11,712
Other accrued liabilities	22,486	16,477
Receivables	2,544	1,994
Operating lease liabilities	15,068	—
Net operating loss and charitable contribution carryforwards	11,333 [(1)]	14,143
Tax credits	11,432 [(2)]	13,373
Total deferred income tax assets	82,644 [(3)]	67,421
Valuation allowances	(26,963)	(22,068)
Net deferred income tax assets	55,681	45,353
Deferred income tax liabilities:		
Property, plant and equipment	13,213	15,332
Inventories	1,587	1,699
Operating lease right-of-use assets	14,009	—
Intangibles and other	4,229	4,987
Total deferred income tax liabilities	33,038	22,018
Net deferred income tax asset	$ 22,643	$ 23,335

(1) At December 31, 2019, non-U.S. operating loss carryforwards of $42.0 million expire between 2021 and 2027.
(2) At December 31, 2019, U.S. general business credit carryforwards of $2.2 million expire between 2024 and 2038. U.S. AMT credits of $0.1 million and the foreign credits of $9.1 million do not expire.
(3) In order to fully realize our U.S. deferred tax assets as of December 31, 2019, the Company needs to generate approximately $179.2 million of future taxable income.

Valuation Allowances: We currently have a valuation allowance in place on our deferred income tax assets in the Netherlands. We intend to maintain this allowance until a period of sustainable income is achieved and management concludes it is more likely than not that those deferred income tax assets will be realized. Management's outlook regarding the future profitability of our China operations make it unlikely that any of its deferred tax assets will ever be utilized. As a result, a valuation allowance was recorded against the net deferred tax assets of our primary China subsidiary. Management concluded that it is not more likely than not that the disallowed interest expense for 2019 and 2018 can be fully utilized in future years. Accordingly, a partial valuation allowance has been recorded against the deferred tax asset related to the limitation on the U.S. deduction for interest expense. In addition, partial valuation allowances have been recorded against state operating loss carryforwards.

Uncertain Tax Positions: The Company and its subsidiaries are subject to examination by various countries' tax authorities. These examinations may lead to proposed or assessed adjustments to our taxes. In August 2016, one of our Mexican subsidiaries received a tax assessment from the Mexican tax authority (SAT) related to the audit of its 2010 tax year. The amount assessed was approximately 3 billion Mexican pesos, which was equivalent to approximately $157 million U.S. dollars as of the date of the assessment.

During December of 2019, Management and SAT reached an agreement whereby Libbey would concede certain tax issues resulting in payment of tax, interest and penalty of $3.2 million. SAT would uphold its adverse finding on the remaining issue. Libbey believes SAT's position on the remaining issue is invalid, intends to litigate the issue, and believes it is more likely than not that the Company will prevail in litigation. The SAT Legal Division formalized this agreement in January, 2020 by issuing a resolution ordering SAT Audit Division to issue a revised assessment consistent with this agreement. We believe that our tax reserves related to uncertain tax positions are adequate at this time.

A reconciliation of the beginning and ending gross unrecognized tax benefits, excluding interest and penalties, is as follows:

(dollars in thousands)	2019	2018
Beginning balance	$ 4,212	$ 5,007
Additions based on tax positions related to the current year	1,199	438
Additions for tax positions of prior years	6	9
Reductions for tax positions of prior years	(82)	(1,698)
Changes due to lapse of statute of limitations	-	513
Reductions due to settlements with tax authorities	(3,045)	(57)
Ending balance	$ 2,290	$ 4,212

We recognize interest and penalties related to unrecognized tax benefits in the provision for income taxes. Other disclosures relating to unrecognized tax benefits are as follows:

December 31, (dollars in thousands)	2019	2018
Amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate	$ 2,455	$ 5,283
Interest, net of tax benefit, accrued in the Consolidated Balance Sheets	$ 91	$ 1,027
Penalties, accrued in the Consolidated Balance Sheets	$ 74	$ 43
Interest expense recognized in the Consolidated Statements of Operations	$ 36	$ 523
Penalties expense (benefit) recognized in the Consolidated Statements of Operations	$ 31	$ 5

Based upon the outcome of tax examinations, judicial proceedings, other settlements with taxing jurisdictions, or expiration of statutes of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. It is also reasonably possible that gross unrecognized tax benefits may decrease within the next twelve months by approximately $0.1 million due to settlements with tax authorities.

Other Matters: We file income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. As of December 31, 2019, the tax years that remained subject to examination by major tax jurisdictions were as follows:

Jurisdiction	Open Years
Canada	2016 – 2019
China	2014 – 2019
Mexico (excluding 2011 which is closed)	2010 – 2019
Netherlands	2018 – 2019
Portugal	2009 – 2019
United States (excluding 2012 and 2013 which are closed)	2011 – 2019

8. Pension

We have pension plans covering the majority of our employees. Benefits generally are based on compensation and length of service for salaried employees and job grade and length of service for hourly employees. In addition, we have an unfunded supplemental employee retirement plan (SERP) that covers salaried U.S.-based employees of Libbey hired before January 1, 2006. The U.S. pension plans cover the salaried U.S.-based employees of Libbey hired before January 1, 2006, and over half of the hourly U.S.-based employees. Hourly employees hired at Shreveport after December 15, 2008, and at Toledo after September 30, 2010, are not eligible to participate. Effective January 1, 2013, we ceased annual company contribution credits to the cash balance accounts in our Libbey U.S. Salaried Pension Plan and SERP. The non-U.S. pension plans cover the employees of our wholly owned subsidiary in Mexico and are unfunded.

Effect on Operations

The components of our net pension expense, including the SERP, are as follows:

Year ended December 31, (dollars in thousands)	U.S. Plans 2019	U.S. Plans 2018	Non-U.S. Plans 2019	Non-U.S. Plans 2018	Total 2019	Total 2018
Service cost (benefits earned during the period)	$ 3,368	$ 4,009	$ 1,032	$ 1,142	$ 4,400	$ 5,151
Interest cost on projected benefit obligation	13,530	12,615	3,068	2,984	16,598	15,599
Expected return on plan assets	(20,781)	(22,658)	—	—	(20,781)	(22,658)
Amortization of unrecognized:						
Prior service cost (credit)	—	1	(200)	(201)	(200)	(200)
Actuarial loss	4,396	6,472	413	622	4,809	7,094
Settlement charge	9	—	—	92	9	92
Pension expense	$ 522	$ 439	$ 4,313	$ 4,639	$ 4,835	$ 5,078

The non-service cost components of pension expense are included in other income (expense) on the Consolidated Statements of Operations. See note 16 for additional information.

Actuarial Assumptions

The assumptions used to determine net periodic pension expense for each year and the benefit obligations at December 31st were as follows:

	U.S. Plans 2019	U.S. Plans 2018	Non-U.S. Plans 2019	Non-U.S. Plans 2018
Net periodic pension expense:				
Discount rate	4.31% to 4.33%	3.64% to 3.69%	10.60%	9.40%
Expected long-term rate of return on plan assets	6.50%	7.00%	Not applicable	Not applicable
Rate of compensation increase	Not applicable	Not applicable	4.30%	4.30%
Cash balance interest crediting rate	5.50%	5.50%	Not applicable	Not applicable
Benefit obligations:				
Discount rate	3.45% to 3.50%	4.31% to 4.33%	8.80%	10.60%
Rate of compensation increase	Not applicable	Not applicable	4.30%	4.30%
Cash balance interest crediting rate	5.50%	5.50%	Not applicable	Not applicable

The discount rate enables us to estimate the present value of expected future cash flows on the measurement date. The rate used reflects a rate of return on high-quality fixed income investments that match the duration of expected benefit payments at our December 31 measurement date. The discount rate at December 31 is used to measure the year-end benefit obligations and the earnings effects for the subsequent year. A higher discount rate decreases the present value of benefit obligations and decreases pension expense.

To determine the expected long-term rate of return on plan assets for our funded plans, we consider the current and expected asset allocations, as well as historical and expected returns on various categories of plan assets. At December 31, 2019, the expected long-term rate of return on plan assets is 6.50 percent, which will be used to measure the earnings effects for 2020.

The cash balance interest crediting rate, which applies only to the U.S. Salaried Plan, enables us to calculate the benefit obligation through projecting future interest credits on cash balance accounts between the measurement date and a participant's assumed retirement date. The rate adjusts annually and is the 30-year Treasury rate in effect as of October in the preceding plan year, subject to a minimum of 5 percent. A lower cash balance interest crediting rate assumption decreases the benefit obligation and decreases pension expense.

Future benefits are assumed to increase in a manner consistent with past experience of the plans except for the Libbey U.S. Salaried Pension Plan and SERP as discussed above, which, to the extent benefits are based on compensation, includes assumed compensation increases as presented above. Amortization included in net pension expense is based on the average remaining service of employees.

We account for our defined benefit pension plans on an expense basis that reflects actuarial funding methods. The actuarial valuations require significant estimates and assumptions to be made by management, primarily with respect to the discount rate and expected long-term return on plan assets. These assumptions are all susceptible to changes in market conditions. The discount rate is based on a selected settlement portfolio from a universe of high quality bonds. In determining the expected long-term rate of return on plan assets, we consider historical market and portfolio rates of return, asset allocations and expectations of future rates of return. We evaluate these critical assumptions on our annual measurement date of December 31st. Other assumptions involving demographic factors such as retirement age, mortality and turnover are evaluated periodically and are updated to reflect our experience. Actual results in any given year often will differ from actuarial assumptions because of demographic, economic and other factors.

For our U.S. pension plans, we began using the Pri-2012 mortality base table and MP-2019 generational mortality improvement projection scale, as released by the Society of Actuaries in October 2019, to determine our projected benefit obligations at December 31, 2019. Prior to this, we used the RP 2014 Sex Distinct Mortality Tables along with the yearly generational projection scale, as released by the Society of Actuaries.

Projected Benefit Obligation (PBO) and Fair Value of Assets

The changes in the projected benefit obligations and fair value of plan assets are as follows:

Year ended December 31,	**U.S. Plans**		**Non-U.S. Plans**		**Total**	
(dollars in thousands)	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Change in projected benefit obligation:						
Projected benefit obligation, beginning of year	$ 322,594	$ 354,053	$ 29,978	$ 31,967	$ 352,572	$ 386,020
Service cost	3,368	4,009	1,032	1,142	4,400	5,151
Interest cost	13,530	12,615	3,068	2,984	16,598	15,599
Exchange rate fluctuations	—	—	1,549	138	1,549	138
Actuarial (gain) loss	28,820	(28,481)	8,878	(3,056)	37,698	(31,537)
Settlements paid	(112)	—	—	—	(112)	—
Benefits paid	(19,745)	(19,602)	(3,210)	(3,197)	(22,955)	(22,799)
Projected benefit obligation, end of year	$ 348,455	$ 322,594	$ 41,295	$ 29,978	$ 389,750	$ 352,572
Change in fair value of plan assets:						
Fair value of plan assets, beginning of year	$ 304,084	$ 343,219	$ —	$ —	$ 304,084	$ 343,219
Actual return on plan assets	61,961	(19,533)	—	—	61,961	(19,533)
Employer contributions	112	—	3,210	3,197	3,322	3,197
Settlements paid	(112)	—	—	—	(112)	—
Benefits paid	(19,745)	(19,602)	(3,210)	(3,197)	(22,955)	(22,799)
Fair value of plan assets, end of year	$ 346,300	$ 304,084	$ —	$ —	$ 346,300	$ 304,084
Funded ratio	99.4%	94.3%	0%	0%	88.9%	86.2%
Funded status and net accrued pension benefit cost	$ (2,155)	$ (18,510)	$ (41,295)	$ (29,978)	$ (43,450)	$ (48,488)

The U.S. defined benefit pension plans experienced actuarial (gains) losses of $28.8 million and $(28.5) million for the years ended December 31, 2019 and 2018, respectively, primarily driven by assumption changes in the discount rate used to determine the benefit obligations.

The non-U.S. defined benefit pension plans experienced actuarial (gains) losses of $8.9 million and $(3.1) million for the years ended December 31, 2019 and 2018, respectively, primarily driven by assumption changes in the discount rate and demographic experience used to determine the benefit obligations.

The current portion of the pension liability reflects the present value of expected benefit payments to be paid in the subsequent year by the Company. The net accrued pension benefit liability at December 31st represents underfunded (including unfunded) pension benefits, and is included in the Consolidated Balance Sheets as follows:

December 31, (dollars in thousands)	2019	2018
Pension asset	$ 5,712	$ —
Pension liability (current portion)	(2,543)	(3,282)
Pension liability	(46,619)	(45,206)
Net accrued pension liability	$ (43,450)	$ (48,488)

The cumulative pretax amounts recognized in accumulated other comprehensive loss (AOCI) as of December 31 are as follows:

December 31,	U.S. Plans		Non-U.S. Plans		Total	
(dollars in thousands)	2019	2018	2019	2018	2019	2018
Net actuarial loss	$ 88,703	$ 105,468	$ 17,772	$ 8,732	$ 106,475	$ 114,200
Prior service cost (credit)	—	—	(2,351)	(2,447)	(2,351)	(2,447)
Total cost in AOCI	$ 88,703	$ 105,468	$ 15,421	$ 6,285	$ 104,124	$ 111,753

Estimated contributions for 2020, as well as, contributions made in 2019 and 2018 to the pension plans are as follows:

(dollars in thousands)	U.S. Plans	Non-U.S. Plans	Total
Estimated contributions in 2020	$ 163	$ 2,486	$ 2,649
Contributions made in 2019	$ 112	$ 3,210	$ 3,322
Contributions made in 2018	$ —	$ 3,197	$ 3,197

It is difficult to estimate future cash contributions to the pension plans, as such amounts are a function of actual investment returns, withdrawals from the plans, changes in interest rates and other factors uncertain at this time. It is possible that greater cash contributions may be required in 2020 than the amounts in the above table. Although a decline in market conditions, changes in current pension law and uncertainties regarding significant assumptions used in the actuarial valuations may have a material impact in future required contributions to our pension plans, we currently do not expect funding requirements to have a material adverse impact on current or future liquidity.

Pension benefit payment amounts are anticipated to be paid from the plans (including the SERP) as follows:

Fiscal Year (dollars in thousands)	U.S. Plans	Non-U.S. Plans	Total
2020	$ 20,040	$ 2,486	$ 22,526
2021	$ 20,212	$ 2,580	$ 22,792
2022	$ 20,412	$ 2,988	$ 23,400
2023	$ 20,669	$ 2,763	$ 23,432
2024	$ 20,748	$ 3,002	$ 23,750
2025-2029	$ 103,285	$ 18,071	$ 121,356

Projected and Accumulated Benefit Obligations in Excess of Plan Assets

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for pension plans with a projected and accumulated benefit obligation in excess of plan assets at December 31, 2019 and 2018 were as follows:

December 31,	**U.S. Plans**		**Non-U.S. Plans**		**Total**	
(dollars in thousands)	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Projected benefit obligation	$ 268,232	$ 322,594	$ 41,295	$ 29,978	$ 309,527	$ 352,572
Accumulated benefit obligation	$ 268,232	$ 322,594	$ 35,557	$ 26,717	$ 303,789	$ 349,311
Fair value of plan assets	$ 260,365	$ 304,084	$ —	$ —	$ 260,365	$ 304,084

Plan Assets

Our investment strategy is to control and manage investment risk through diversification across asset classes and investment styles, within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. Assets are diversified among a mix of traditional investments in equity and fixed income instruments, as well as alternative investments including real estate and hedge funds. It would be anticipated that a modest allocation to short-term investments would exist within the plans, since each investment manager is likely to hold some short-term investments in the portfolio with the goal of ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

Our investment valuation policy is to state the investments at fair value. Primarily all investments are valued at their respective net asset value (NAV) as a practical expedient and calculated by the Trustee. The real estate, equity securities and fixed income investments are held in a Group Trust which is valued at the unit prices established by the Trustee and are valued using NAV as a practical expedient. Underlying equity securities (including large and small cap domestic and international equities), for which market quotations are readily available, are valued at the last reported readily available sales price on their principal exchange on the valuation date or official close for certain markets. Fixed income investments are valued on a basis of valuations furnished by a trustee-approved pricing service, which determines valuations for normal institutional-size trading units of such securities which are generally recognized at fair value as determined in good faith by the Trustee. The fair value of investments in real estate funds is based on valuation of the fund as determined by periodic appraisals of the underlying investments owned by the respective fund. Investments in registered investment companies are valued at quoted market prices. Collective pooled funds, if any, are recorded using NAV practical expedients. Short-term investments are valued at their respective NAV and have no redemption restrictions. The hedge fund investments using NAV as a practical expedient are valued by using estimated month-end NAV and performance numbers provided by the fund administrator. The Plan is required to provide a month’s advance written notice to liquidate its entire share in the Group Trust. Certain investments in the hedge funds can only be liquidated on either a quarterly or semi-annual basis, require advance notification and are subject to audit holdback provisions.

Investments measured at NAV as a practical expedient for fair value have been excluded from the fair value hierarchy, in accordance with U.S. GAAP. The table below presents our U.S. pension plan assets at fair value.

December 31,	**Measured at NAV as a practical expedient**		**Target Allocation**
(dollars in thousands)	**2019**	**2018**	**2020**
Short-term investments	$ 7,489	$ 9,796	3%
Real estate	7,623	6,198	2%
Equity securities	139,060	108,952	40%
Debt securities	155,574	146,080	45%
Hedge funds	36,554	33,058	10%
Total	$ 346,300	$ 304,084	100%

Other Retirement Plans

We sponsor the Libbey Inc. Salary and Hourly 401(k) plans (the Plans) to provide retirement benefits for our U.S. employees. As allowed under Section 401(k) of the Internal Revenue Code, the Plans provide for tax-deferred wage contributions for eligible employees. For the Salary Plan, we match 100 percent on the first 6 percent of pretax contributions from eligible earnings on a per pay basis. For the Hourly Plan, we match 50 percent of the first 6 percent of pretax contributions from eligible earnings on a per pay basis. All matching contributions are invested according to the employees’ deferral elections and vest immediately. Our matching contributions to all U.S. Plans totaled $3.9 million and $3.8 million in 2019 and 2018, respectively.

Libbey Holland makes cash contributions to the Pensioenfonds voor de Grafische Bedrijven (“PGB”), an industry wide pension fund, as participating employees earn pension benefits. These related costs are expensed as incurred and amounted to $2.0 million in both 2019 and 2018.

9. Non-pension Post-retirement Benefits

We provide certain retiree healthcare and life insurance benefits covering our U.S. and Canadian salaried employees hired before January 1, 2004 and over half of our union hourly employees. Hourly employees hired at Shreveport after December 15, 2008, and at Toledo after September 30, 2010, are not eligible to participate. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. Benefits for most hourly retirees are determined by collective bargaining. The U.S. non-pension, post-retirement plans cover the hourly and salaried U.S.-based employees of Libbey (excluding those mentioned above). The non-U.S., non-pension, post-retirement plans cover the retirees and active employees of Libbey who are located in Canada. The post-retirement benefit plans are unfunded.

Effect on Operations

The provision for our non-pension, post-retirement, benefit expense consists of the following:

Year ended December 31, (dollars in thousands)	U.S. Plans		Non-U.S. Plans		Total	
	2019	2018	2019	2018	2019	2018
Service cost	$ 443	$ 604	$ 1	$ 1	$ 444	$ 605
Interest cost on projected benefit obligation	1,836	1,822	36	38	1,872	1,860
Amortization of unrecognized:						
Prior service credit	(282)	(282)	—	—	(282)	(282)
Actuarial gain	(376)	(209)	(76)	(64)	(452)	(273)
Non-pension post-retirement benefit expense (income)	$ 1,621	$ 1,935	$ (39)	$ (25)	$ 1,582	$ 1,910

The non-service cost components of benefit expense above are included in other income (expense) on the Consolidated Statements of Operations. See note 16 for additional information.

Actuarial Assumptions

The significant assumptions used for each year and at December 31st were as follows:

	U.S. Plans		Non-U.S. Plans	
	2019	2018	2019	2018
Net periodic benefit expense				
Discount rate	4.27%	3.60%	3.52%	3.26%
Non-pension post-retirement benefit obligation				
Discount rate	3.41%	4.27%	2.92%	3.52%
Weighted average assumed healthcare cost trend rates				
Healthcare cost trend rate assumed for next year	6.00%	6.25%	6.00%	6.25%
Ultimate healthcare trend rate	4.50%	5.00%	5.00%	5.00%
Year the ultimate healthcare trend rate is reached	2026	2024	2024	2024

We use various actuarial assumptions, including the discount rate and the expected trend in healthcare costs, to estimate the costs and benefit obligations for our retiree health plan. The discount rate is determined based on high-quality fixed income investments that match the duration of expected retiree medical benefits at our December 31 measurement date to establish the discount rate. The discount rate at December 31 is used to measure the year-end benefit obligations and the earnings effects for the subsequent year. The healthcare cost trend rate represents our expected annual rates of change in the cost of healthcare benefits. The trend rate noted above represents a forward projection of healthcare costs as of the measurement date.

Accumulated Post-retirement Benefit Obligation

The changes in the non-pension, post-retirement, benefit obligation are as follows:

Year ended December 31, (dollars in thousands)	U.S. Plans 2019	U.S. Plans 2018	Non-U.S. Plans 2019	Non-U.S. Plans 2018	Total 2019	Total 2018
Change in accumulated non-pension post-retirement benefit obligation:						
Benefit obligation, beginning of year	$ 45,899	$ 52,648	$ 1,067	$ 1,295	$ 46,966	$ 53,943
Service cost	443	604	1	1	444	605
Interest cost	1,836	1,822	36	38	1,872	1,860
Plan participants' contributions	409	512	—	—	409	512
Actuarial (gain) loss	4,666	(5,305)	(41)	(106)	4,625	(5,411)
Exchange rate fluctuations	—	—	49	(96)	49	(96)
Benefits paid	(4,990)	(4,382)	(51)	(65)	(5,041)	(4,447)
Benefit obligation, end of year	$ 48,263	$ 45,899	$ 1,061	$ 1,067	$ 49,324	$ 46,966
Funded status and accrued benefit cost	$ 48,263	$ 45,899	$ 1,061	$ 1,067	$ 49,324	$ 46,966

The U.S. non-pension, post-retirement, benefit plans experienced actuarial losses of $4.7 million in 2019 primarily due to the updated discount rate and higher than expected healthcare costs. Actuarial (gains) in the U.S. of $(5.3) million in 2018 were primarily driven by the updated discount rate and lower than expected healthcare costs.

The total accrued non-pension, post-retirement, benefits liability at December 31st represents unfunded post-retirement benefits and is included in the Consolidated Balance Sheets as follows:

December 31, (dollars in thousands)	2019	2018
Non-pension post-retirement benefits (current portion)	$ 3,817	$ 3,951
Non-pension post-retirement benefits	45,507	43,015
Total non-pension post-retirement benefits liability	$ 49,324	$ 46,966

The cumulative pretax amounts recognized in AOCI as of December 31 are as follows:

December 31, (dollars in thousands)	U.S. Plans 2019	U.S. Plans 2018	Non-U.S. Plans 2019	Non-U.S. Plans 2018	Total 2019	Total 2018
Net actuarial gain	$ (134)	$ (5,176)	$ (808)	$ (806)	$ (942)	$ (5,982)
Prior service credit	(698)	(980)	—	—	(698)	(980)
Total credit in AOCI	$ (832)	$ (6,156)	$ (808)	$ (806)	$ (1,640)	$ (6,962)

Non-pension, post-retirement, benefit payments, net of estimated future retiree contributions, are anticipated to be paid as follows:

Fiscal Year (dollars in thousands)	U.S. Plans	Non-U.S. Plans	Total
2020	$ 3,768	$ 114	$ 3,882
2021	$ 3,686	$ 109	$ 3,795
2022	$ 3,688	$ 103	$ 3,791
2023	$ 3,594	$ 93	$ 3,687
2024	$ 3,498	$ 84	$ 3,582
2025-2029	$ 15,370	$ 245	$ 15,615

10. Net Loss per Share of Common Stock

The following table sets forth the computation of basic and diluted loss per share:

Year ended December 31, (dollars in thousands, except earnings per share)	2019	2018
Numerator for loss per share:		
Net loss that is available to common shareholders	$ (69,019)	$ (7,956)
Denominator for basic loss per share:		
Weighted average shares outstanding	22,419,138	22,180,102
Denominator for diluted loss per share:		
Effect of stock options and restricted stock units	—	—
Adjusted weighted average shares and assumed conversions	22,419,138	22,180,102
Basic loss per share	$ (3.08)	$ (0.36)
Diluted loss per share	$ (3.08)	$ (0.36)
Anti-dilutive shares excluded from computation of diluted loss per share	1,825,727	1,285,307

When applicable, diluted shares outstanding is calculated using the weighted-average number of common shares outstanding plus the dilutive effects of equity-based compensation outstanding during the period using the treasury stock method.

11. Employee Stock Benefit Plans

We have two equity participation plans, the Amended and Restated Libbey Inc. 2006 Omnibus Incentive Plan and the Libbey Inc. 2016 Omnibus Incentive Plan, which we refer to as the Omnibus Plans. Up to a total of 2,960,000 and 2,950,000 shares of Libbey Inc. common stock are authorized for issuance as equity-based compensation under the 2006 and 2016 Omnibus Plans, respectively. Under the Omnibus Plans, grants of equity-based compensation may take the form of stock, stock options, stock appreciation rights, performance shares or units, restricted stock or restricted stock units (RSUs) or other stock-based awards. Employees and directors are eligible for awards under these plans. The vesting period of stock options and RSUs is generally three or four years with prorated annual vesting. We grant non-employee members of our Board of Directors shares of stock that vest immediately. Awards are subject to alternate vesting plans for death, disability, retirement eligibility and involuntary termination. All employee grants of equity-based compensation are amortized using a ratable straight-line method over the vesting period and are recorded in selling, general and administrative expenses in the Consolidated Statements of Operations. Shares of common stock to be issued under the plans are made available through authorized and unissued Libbey common stock. As of December 31, 2019, shares available to be issued under the 2006 and 2016 Omnibus Incentive Plans were 251,811 and 1,889,023, respectively. In addition, we have a limited number of outstanding stock appreciation rights and cash-settled RSUs that are immaterial and will be settled in cash.

The Black-Scholes option-pricing model is used to estimate the grant-date fair value for stock options. The exercise price of stock options is generally equal to the closing market price of our common stock on the date of grant, and the maximum term is ten years. Grant-date fair value for RSUs is measured based on the closing market price of the stock at date of grant less the present value of expected dividends over the vesting period, as dividends are not payable on unvested RSUs. On March 25, 2019, the CEO was awarded 150,000 stock options which were divided into four equal groups, with different exercise prices of $7.00, $8.50, $10.00 and $11.50, all cliff vesting on March 25, 2022.

The following table summarizes award activity for the current fiscal year:

	Stock Options		Stock and RSUs	
	Shares	**Weighted-average Exercise Price (per share)**	**Shares / Units**	**Weighted-average Grant Date Fair Value (per share)**
Outstanding balance at December 31, 2018	590,572	$ 16.82	692,929	$ 7.66
Granted	150,000	$ 9.25	848,803	$ 3.37
Exercised or vested	—		(336,182)	$ 6.94
Forfeited or expired	(31,249)	$ 14.69	(98,713)	$ 5.13
Outstanding balance at December 31, 2019	709,323	$ 15.31	1,106,837	$ 4.82
Exercisable at December 31, 2019	438,915	$ 17.94		

Since all stock options are under water at December 31, 2019, there is no intrinsic value for stock options outstanding or exercisable. At December 31, 2019, the weighted-average remaining contractual life for stock options outstanding and stock options exercisable is 6.1 years and 4.8 years, respectively. The intrinsic value for share-based instruments is defined as the difference between the current market value and the exercise price.

As of December 31, 2019, unrecognized compensation expense related to nonvested stock options and nonvested RSUs is $0.1 million and $1.3 million, respectively, which is expected to be recognized over the weighted average period of 2.0 years for stock options and 1.5 years for RSUs.

The following table summarizes award expensing and fair value information for the periods presented:

Year ended December 31, **(dollars in thousands, except grant date fair values and assumptions)**	**2019**	**2018**
Total stock compensation expense	$ 3,231	$ 2,827
Total fair value of stock, stock options and RSUs vested	$ 2,808	$ 3,371
Weighted average grant date fair value of stock options granted	$ 0.80	Not applicable
Weighted average grant date fair value of stock and RSUs granted	$ 3.37	$ 5.50
Intrinsic value of stock options exercised	Not applicable	$ 38
Intrinsic value of stock and RSUs vested	$ 1,256	$ 1,230
Weighted-average assumptions for stock option grants:		
Risk-free interest	2.28%	Not applicable
Expected term	6.5 years	Not applicable
Expected volatility	50.94%	Not applicable
Dividend yield	0%	Not applicable

The risk-free interest rate is based on the U.S. Treasury yield curve at the time of grant and has a term equal to the expected life. The expected term represents the period of time the stock options are expected to be outstanding. We use the actual historical exercise activity for determining the expected term. Expected volatility is calculated based on Libbey's daily stock closing prices for a period equal to the expected life of the award. The dividend yield is calculated as the ratio based on our most recent historical dividend payments per share of common stock at the grant date to the stock price on the date of grant.

12. Derivatives

We utilize derivative financial instruments to hedge certain interest rate risks associated with our long-term debt and commodity price risks associated with forecasted future natural gas requirements. These derivatives qualify for hedge accounting since the hedges are highly effective, and we have designated and documented contemporaneously the hedging relationships involving these derivative instruments. While we intend to continue to meet the conditions for hedge accounting, if hedges do not qualify as highly effective or if we do not believe that forecasted transactions would occur, the changes in the fair value of the derivatives used as hedges would be reflected in our earnings. Our contracts with counterparties generally contain right of offset provisions. These provisions effectively reduce our exposure to credit risk in situations where the Company has gain and loss positions outstanding with a single counterparty. It is our policy to offset on the Consolidated Balance Sheets the amounts recognized for derivative instruments executed with the same counterparty under a master netting agreement.

We do not believe we are exposed to more than a nominal amount of credit risk in our natural gas hedges and interest rate swaps as the counterparties are established financial institutions. The counterparties for the derivative agreements are rated BBB+ or better as of December 31, 2019, by Standard and Poor's.

Fair Values

The following table provides the fair values of our derivative financial instruments for the periods presented, all of which are cash flow hedges:

December 31, (dollars in thousands)	**Balance Sheet Location**	**Fair Value of Derivative Assets 2019**	**Fair Value of Derivative Assets 2018**
Interest rate swaps	Prepaid and other current assets	$ —	$ 1,425
Natural gas contracts	Prepaid and other current assets	—	226
Natural gas contracts	Other assets	—	39
Total derivative assets		$ —	$ 1,690
		Fair Value of Derivative Liabilities	
Interest rate swaps	Accrued liabilities	$ 2,931	$ —
Interest rate swaps	Other long-term liabilities	11,632	5,713
Natural gas contracts	Accrued liabilities	836	—
Natural gas contracts	Other long-term liabilities	3	—
Total derivative liabilities		$ 15,402	$ 5,713

The following table presents cash settlements (paid) received related to the below derivatives:

Year ended December 31, (dollars in thousands)	**2019**	**2018**
Natural gas contracts	$ (651)	$ 426
Interest rate swaps	993	159
Total	$ 342	$ 585

The following table provides a summary of the impacts of derivative gain (loss) of our cash flow hedges on the Consolidated Statements of Operations and other comprehensive income (OCI):

Year ended December 31, (dollars in thousands)	Location	2019	2018
Derivative gain (loss) recognized in OCI:			
Natural gas contracts	OCI	$ (1,755)	$ 1,194
Interest rate swaps	OCI	(9,375)	(4,436)
Total		$ (11,130)	$ (3,242)
Derivative gain (loss) reclassified from accumulated OCI to current earnings:			
Natural gas contracts	Cost of Sales	$ (651)	$ 426
Interest rate swaps	Interest expense	901	285
Total		$ 250	$ 711

Natural Gas Contracts

We use natural gas swap contracts related to forecasted future North American natural gas requirements. The objective of these commodity contracts is to limit the fluctuations in prices paid due to price movements in the underlying commodity. We consider our forecasted natural gas requirements in determining the quantity of natural gas to hedge. We combine the forecasts with historical observations to establish the percentage of forecast eligible to be hedged, typically ranging from 40 percent to 70 percent of our anticipated requirements, 18 months in the future, or more, depending on market conditions. The fair values of these instruments are determined from market quotes.

The following table presents the notional amount of our natural gas derivatives on the Consolidated Balance Sheets:

		Notional Amounts	
Derivative Types	**Unit of Measure**	**December 31, 2019**	**December 31, 2018**
Natural gas contracts	Millions of British Thermal Units (MMBTUs)	2,460,000	3,150,000

Hedge accounting is applied only when the derivative is deemed to be highly effective at offsetting changes in fair values or anticipated cash flows of the hedged item or transaction. For hedged forecasted transactions, hedge accounting is discontinued if the forecasted transaction is no longer probable to occur, and any previously deferred gains or losses would be recorded to earnings immediately. Changes in the fair value of these hedges are recorded in other comprehensive income (loss). As the natural gas contracts mature, the accumulated gains (losses) for the respective contracts are reclassified from accumulated other comprehensive loss to current expense in cost of sales in our Consolidated Statements of Operations.

Based on our current valuation, we estimate that accumulated losses for natural gas contracts currently carried in accumulated other comprehensive loss that will be reclassified into earnings over the next twelve months will result in $0.8 million of loss to our Consolidated Statements of Operations.

Interest Rate Swaps

The table below lists the interest rate swaps we executed as part of our risk management strategy to mitigate the risks associated with the fluctuating interest rates under our Term Loan B. The interest rate swaps effectively convert a portion of our Term Loan B debt from a variable interest rate to a fixed interest rate, thus reducing the impact of interest rate changes on future income.

Swap execution date	Effective date	Expiration date	Notional amount	Fixed swap rate
April 1, 2015	January 11, 2016	January 9, 2020	$220.0 million	4.85%
September 24, 2018	January 9, 2020	January 9, 2025	$200.0 million	6.19% (1)

(1) In the event our Term Loan B is refinanced, the fixed interest rate will be 3.19 percent plus the new refinanced credit spread.

Our interest rate swaps are valued using the market standard methodology of netting the discounted expected future variable cash receipts and the discounted future fixed cash payments. The variable cash receipts are based on an expectation of future interest rates derived from observed market interest rate forward curves.

Our interest rate swaps qualify and are designated as cash flow hedges at December 31, 2019, and are accounted for under FASB ASC 815 “Derivatives and Hedging”. Hedge accounting is applied only when the derivative is deemed to be highly effective at offsetting changes in fair values or anticipated cash flows of the hedged item or transaction. For hedged forecasted transactions, hedge accounting is discontinued if the forecasted transaction is no longer probable to occur, and any previously deferred gains or losses are recorded to earnings immediately. Changes in the fair value of these hedges are recorded in other comprehensive income (loss). Based on our current valuation, we estimate that accumulated losses currently carried in accumulated other comprehensive loss that will be reclassified into earnings over the next twelve months will result in an increase to interest expense of $2.9 million in our Consolidated Statements of Operations.

13. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) (AOCI), net of tax, is as follows:

(dollars in thousands)	Foreign Currency Translation	Derivative Instruments	Pension and Other Post-retirement Benefits	Total Accumulated Comprehensive Loss
Balance on December 31, 2017	$ (16,183)	$ 351	$ (89,340)	$ (105,172)
Cumulative-effect adjustment for the adoption of ASU 2017-12	—	(275)	—	(275)
Amounts recognized into AOCI	(7,057)	(3,242)	(5,245)	(15,544)
Currency impact	—	—	(164)	(164)
Amounts reclassified from AOCI	—	(711) (1)	6,431 (2)	5,720
Tax effect	—	1,011	19	1,030
Other comprehensive income (loss), net of tax	(7,057)	(2,942)	1,041	(8,958)
Balance on December 31, 2018	(23,240)	(2,866)	(88,299)	(114,405)
Amounts recognized into AOCI	(1,974)	(11,130)	(1,143)	(14,247)
Currency impact	—	—	(428)	(428)
Amounts reclassified from AOCI	—	(250) (1)	3,884 (2)	3,634
Tax effect	67	2,814	(1,381)	1,500
Other comprehensive income (loss), net of tax	(1,907)	(8,566)	932	(9,541)
Balance on December 31, 2019	$ (25,147)	$ (11,432)	$ (87,367)	$ (123,946)

(1) We reclassified natural gas contracts through cost of sales and the interest rate swaps through interest expense on the Consolidated Statements of Operations. See note 12 for additional information.

(2) We reclassified the net pension and non-pension post-retirement benefits amortization and settlement charges through other income (expense) on the Consolidated Statements of Operations. See notes 8 and 9 for additional information.

14. Fair Value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy prioritizes the inputs used in measuring fair value into three broad levels as follows:

- Level 1 — Quoted prices in active markets for identical assets or liabilities;
- Level 2 — Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3 — Unobservable inputs based on our own assumptions.

The fair value of our derivative financial instruments by level is as follows:

Asset / (Liability)	Fair Value at December 31, 2019				Fair Value at December 31, 2018			
(dollars in thousands)	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Commodity futures natural gas contracts	$ —	$ (839)	$ —	$ (839)	$ —	$ 265	$ —	$ 265
Interest rate swaps	—	(14,563)	—	(14,563)	—	(4,288)	—	(4,288)
Net derivative asset (liability)	$ —	$ (15,402)	$ —	$ (15,402)	$ —	$ (4,023)	$ —	$ (4,023)

The fair values of our commodity futures natural gas contracts is determined using observable market inputs. The fair value of our interest rate swaps are based on the market standard methodology of netting the discounted expected future variable cash receipts and the discounted future fixed cash payments. The variable cash receipts are based on an expectation of future interest rates derived from observed market interest rate forward curves. Since these inputs are observable in active markets over the terms that the instruments are held, the derivatives are classified as Level 2 in the hierarchy. We also evaluate Company and counterparty risk in determining fair values. The commodity futures natural gas contracts and interest rate swaps are hedges of either recorded assets or liabilities or anticipated transactions. Changes in values of the underlying hedged assets and liabilities or anticipated transactions are not reflected in the above table.

Financial instruments carried at cost on the Consolidated Balance Sheets, as well as the related fair values, are as follows:

		December 31, 2019		December 31, 2018	
(dollars in thousands)	Fair Value Hierarchy Level	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Term Loan B	Level 2	$ 375,800	$ 304,398	$ 380,200	$ 362,141

The fair value of our Term Loan B has been calculated based on quoted market prices for the same or similar issues, and the fair value of our ABL Facility approximates carrying value due to variable rates. The fair value of our cash and cash equivalents, accounts receivable and accounts payable approximate their carrying value due to their short term nature.

15. Leases

Globally, we lease certain warehouses, office space, showrooms, manufacturing and office equipment, automobiles and outlet stores. Many of the real estate leases contain one or more options to renew, with renewal options that can extend the lease term from one to 20 years or more. The exercise of lease renewal options is at our discretion and is not reasonably certain at lease commencement. Most of our equipment leases have a lease term of two to eight years with limited renewal options. However, one class of equipment has a lease term of 15 years with annual renewal options thereafter. Generally, the longer term lease agreements contain escalating lease payments or are adjusted periodically for inflation.

At December 31, 2019, the weighted-average remaining lease term was 6.4 years, and the weighted-average discount rate was 4.05 percent. Upon adoption of the new lease standard, discount rates used for existing leases were established at January 1, 2019.

The following table presents the lease costs and supplemental cash flow information related to our operating leases for the year ended December 31:

(dollars in thousands)	2019
Operating lease costs	$ 15,669
Short-term lease costs [(1)]	4,446
Total lease costs	$ 20,115

(1) Includes variable lease costs which are immaterial.

Cash paid for operating leases included in the measurement of lease liabilities	$ 15,584
ROU assets obtained in exchange for lease liabilities	$ 74,084

The following table reconciles the undiscounted cash flows to the operating lease liabilities recorded on the balance sheet:

(dollars in thousands)	December 31, 2019
2020	$ 14,970
2021	11,255
2022	9,987
2023	9,283
2024	8,005
2025 and thereafter	15,768
Total minimum lease payments	69,268
Less: interest	(8,176)
Present value of future minimum lease payments	61,092
Less: lease liabilities (current portion)	(12,769)
Noncurrent lease liabilities	$ 48,323

On December 31, 2019, we recorded a non-cash impairment charge of $5.3 million against operating lease right-of-use assets in our Libbey Holland asset group (within the EMEA segment) which was recorded in the asset impairments line on the Consolidated Statement of Operations. This will reduce future lease costs on the impaired right-of-use assets. See note 5 for further discussion.

Prior to the adoption of the new lease standard, rental expense for all non-cancelable operating leases was $18.9 million in 2018. The future minimum rental commitments under ASC 840 for non-cancelable operating leases as of December 31, 2018, was as follows (dollars in thousands):

2019	2020	2021	2022	2023	2024 and thereafter
$ 15,407	$ 13,787	$ 10,339	$ 9,143	$ 8,551	$ 20,755

16. Other Income (Expense)

Items included in other income (expense) in the Consolidated Statements of Operations are as follows:

Year ended December 31, (dollars in thousands)	2019	2018
Gain (loss) on currency transactions	$ (2,318)	$ (1,454)
Pension and non-pension benefits, excluding service cost	(1,573)	(1,232)
Debt refinancing fees	(525)	—
Other non-operating income (expense)	(27)	(78)
Other income (expense)	$ (4,443)	$ (2,764)

17. Contingencies

Legal Proceedings

From time to time, we are identified as a "potentially responsible party" (PRP) under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and/or similar state laws that impose liability without regard to fault for costs and damages relating to the investigation and clean-up of contamination resulting from releases or threatened releases of hazardous substances. We are also subject to similar laws in some of the countries where our facilities are located. Our environmental, health, and safety department monitors compliance with applicable laws on a global basis.

On October 30, 2009, the United States Environmental Protection Agency ("U.S. EPA") designated Syracuse China Company ("Syracuse China"), our wholly-owned subsidiary, as one of eight PRPs with respect to the Lower Ley Creek sub-site of the Onondaga Lake Superfund site located near the ceramic dinnerware manufacturing facility that Syracuse China operated from 1995 to 2009 in Syracuse, New York. As a PRP, we may be required to pay a share of the costs of investigation and remediation of the Lower Ley Creek sub-site.

U.S. EPA has completed its Remedial Investigation (RI), Feasibility Study (FS), Risk Assessment (RA) and Proposed Remedial Action Plan (PRAP). U.S. EPA issued its Record of Decision (RoD) on September 30, 2014. The RoD indicates that U.S. EPA's estimate of the undiscounted cost of remediation ranges between approximately $17.0 million (assuming local disposal of contaminated sediments is feasible) and approximately $24.8 million (assuming local disposal is not feasible). However, the RoD acknowledges that the final cost of the cleanup will depend upon the actual volume of contaminated material, the degree to which it is contaminated, and where the excavated soil and sediment is properly disposed. In connection with the General Motors Corporation ("GM") bankruptcy, U.S. EPA recovered $22.0 million from Motors Liquidation Company (MLC), the successor to GM. If the cleanup costs do not exceed the amount recovered by U.S. EPA from MLC, Syracuse China may suffer no loss. If and to the extent the cleanup costs exceed the amount recovered by U.S. EPA from MLC, it is not yet known whether other PRPs will be added to the current group of PRPs or how any excess costs may be allocated among the PRPs.

On March 3, 2015, the EPA issued to the PRPs notices and requests to negotiate performance of the remedial design (RD) work. The notices contemplate that any agreement to perform the RD work would be memorialized in an Administrative Order on Consent (AOC). On July 14, 2016, the PRPs entered into an AOC to perform the RD work. The EPA and PRPs anticipate that the RD work will produce additional information from which the feasibility of a local disposal option and the cleanup costs can be better determined. The EPA has declined to advance the GM Settlement Funds for the RD work, instead conditioning use of those funds to reimburse for the RD work upon the successful completion of the RD work and the finalization of an AOC to perform the remedial action work.

In connection with the above proceedings relating to the Lower Ley Creek sub-site, an estimated environmental liability of $0.7 million and a recoverable amount of $0.4 million in other assets have been recorded in the Consolidated Balance Sheets at December 31, 2019 and 2018. Immaterial amounts have been recorded in cost of sales in the Consolidated Statements of Operations during 2019 and 2018. Although we cannot predict the ultimate outcome of these proceedings, we believe that these environmental proceedings will not have a material adverse impact on our financial condition, results of operations or liquidity.

On October 26, 2018, Revitalizing Auto Communities Environmental Response Trust ("RACER Trust") and RACER Properties LLC filed a complaint in the United States District Court for the Northern District of New York against our wholly-owned subsidiaries Syracuse China Company and Libbey Glass Inc. (collectively, "SCC") and more than 30 other companies. RACER Properties LLC is the owner of a former GM manufacturing facility located in Onondaga County, New York, and the RACER Trust, established pursuant to a 2010 Environmental Response Trust Consent Decree and Settlement Agreement approved by the U.S. Bankruptcy Court (the "2010 Trust Consent Decree"), was created to clean up and reposition for development certain properties owned by the former GM. The complaint alleges that SCC and the other defendants are jointly and severally liable, along with the plaintiffs, for the remediation of polychlorinated biphenyls ("PCBs") and certain other hazardous substances in soils and sediments in Upper Ley Creek between Town Line Road and the Route 11 Bridge in Onondaga County, New York (the "Upper Ley Creek sub-site"). The Upper Ley Creek sub-site is located immediately upstream of the Lower Ley Creek sub-site.

Pursuant to a 2015 Consent Order with the New York State Department of Environmental Conservation ("NYSDEC"), the RACER Trust committed to undertake certain remedial work with respect to the Upper Ley Creek sub-site utilizing funds set aside for this purpose by the Bankruptcy Court. According to the complaint, the NYSDEC has directed the RACER Trust to investigate a 22-acre area of land on the north side of Upper Ley Creek that is allegedly outside of the original geographic scope of the remedial work contemplated by the 2010 Trust Consent Decree. The complaint alleges that if additional remediation in that area becomes necessary, the remediation budget for the Upper Ley Creek sub-site could increase to as much as approximately $93.5 million.

If SCC is determined to be a PRP for the Upper Ley Creek sub-site, SCC may be required to pay a share of the costs of investigation and remediation of the Upper Ley Creek sub-site. SCC and several other defendants have moved to dismiss the complaint. That motion is currently awaiting a decision from the District Court. We cannot predict the ultimate outcome of this proceeding, and the amount that SCC may ultimately be required to pay is currently not reasonably estimable.

To the extent that Syracuse China has a liability with respect to the Lower Ley Creek sub-site, including without limitation costs to fund the RD work, or with respect to the Upper Ley Creek sub-site, and to the extent the liability arose prior to our 1995 acquisition of the Syracuse China assets, the liability would be subject to the indemnification provisions contained in the Asset Purchase Agreement between the Company and The Pfaltzgraff Co. (now known as TPC-York, Inc. ("TPC York")) and certain of its subsidiaries. Accordingly, Syracuse China has notified TPC York of its claims for indemnification under the Asset Purchase Agreement. Such costs will be shared up to an aggregate cost of $7.5 million. Of this amount, the Company already has incurred $0.5 million and TPC York remains liable for up to an additional $2.8 million. TPC York already has reimbursed the Company for $1.4 million.

On November 12, 2018, we received notice from the BKK Working Group that Libbey Glass Inc. is a PRP with respect to waste disposal at a former landfill (the "BKK Landfill") in West Covina, California. The BKK Working Group consists of approximately 63 entities who are cooperating with the California Department of Toxic Substances Control to investigate and remediate the BKK Landfill. The BKK Working Group alleges that Libbey Glass Inc., along with over 500 other entities, disposed of manifested waste at the landfill between 1963 and 1984 and therefore may be liable for a portion of the costs incurred. Libbey Glass Inc. was named as a defendant in the related lawsuit, *BKK Working Group v. 1700 Santa Fe Ltd et al*, Case No #2:18-cv-05810-MWF-PLA, but was dismissed without prejudice pursuant to a tolling agreement on July 12, 2019. That tolling agreement tolled all claims against Libbey until July 2, 2021. The underlying case is currently stayed until July 20, 2020. Accordingly, at this time we are evaluating our legal options and have not formed an opinion that an unfavorable outcome is either probable or remote or the range of any potential loss.

Income Taxes

The Company and its subsidiaries are subject to examination by various countries' tax authorities. These examinations may lead to proposed or assessed adjustments to our taxes. Please refer to note 7, Income Taxes, for a detailed discussion on tax contingencies.

18. Revenue

Our primary source of revenue is the sale of glass tableware products manufactured within a Libbey facility as well as globally sourced tabletop products, including glassware, ceramicware, metalware and others. For the years ended December 31, 2019 and 2018, bad debt expense was immaterial. Additionally, adjustments related to revenue recognized in prior periods was immaterial for 2019 and 2018. There were no material contract assets, contract liabilities or deferred contract costs recorded on the Consolidated Balance Sheets as of December 31, 2019 and 2018.

Disaggregation of Revenue:

The following table presents our net sales disaggregated by business channel:

Year ended December 31, (dollars in thousands)	**2019**	**2018**
Foodservice	$ 319,766	$ 327,550
Retail	252,256	256,646
Business-to-business	210,415	213,662
Consolidated	$ 782,437	$ 797,858

Each operating segment has revenues across all our business channels. Each channel has a different marketing strategy, customer base and product composition. Over 75 percent of each segment's revenue is derived from the following business channels: U.S. & Canada from foodservice and retail; Latin America from retail and business-to-business; and EMEA from retail and business-to-business.

Foodservice

The majority of our tabletop products sold in the foodservice channel are sold through a network of foodservice distributors. Our strong foodservice distributor network and in-house sales force provide broad coverage to a wide variety of foodservice establishments, including restaurants, bars, hotels and other travel and tourism venues. A high percentage of foodservice sales are replacements, driving a relatively predictable revenue stream.

Retail

Our primary customers in the retail channel include mass merchants, department stores, national retail chains, pure play e-commerce retailers or marketers, retail and wholesale distributors, value-oriented retailers, grocers and specialty housewares stores. We also operate outlet stores in the U.S., Mexico and Portugal.

Business-to-business

Our customers for products sold in the diverse business-to-business channel include beverage companies and custom decorators of glass tableware for promotional purposes and resale. In addition, sales of our products in this channel include products for candle and floral applications, craft industries and gourmet food-packing companies. Our Latin America region also sells blender jars and various OEM products in this channel.

19. Segments and Geographic Information

Our reporting segments are U.S. & Canada; Latin America; Europe, the Middle East and Africa (EMEA); and Other. Segment results are based primarily on the geographical destination of the sale. Our three reportable segments are defined below. Our operating segment that does not meet the criteria to be a reportable segment is disclosed as Other.

U.S. & Canada—includes sales of manufactured glassware products and sourced tableware having an end-market destination in the U.S & Canada, excluding glass products for Original Equipment Manufacturers (OEM), which remain in the Latin America segment.

Latin America—includes primarily sales of manufactured and sourced glass tableware having an end-market destination in Latin America, as well as glass products for OEMs regardless of end-market destination.

EMEA—includes primarily sales of manufactured and sourced glass tableware having an end-market destination in Europe, the Middle East and Africa.

Other—includes primarily sales of manufactured and sourced glass tableware having an end-market destination in Asia Pacific.

Our measure of profit for our reportable segments is Segment Earnings before Interest and Taxes (Segment EBIT) and excludes amounts related to certain items we consider not representative of ongoing operations as well as certain retained corporate costs and other allocations that are not considered by management when evaluating performance. Segment EBIT also includes an allocation of manufacturing costs for inventory produced at a Libbey facility that is located in a region other than the end market in which the inventory is sold. This allocation can fluctuate from year to year based on the relative demands for products produced in regions other than the end markets in which they are sold. We use Segment EBIT, along with net sales and selected cash flow information, to evaluate performance and to allocate resources. Segment EBIT for reportable segments includes an allocation of some corporate expenses based on the costs of services performed.

Certain activities not related to any particular reportable segment are reported within retained corporate costs. These costs include certain headquarter, administrative and facility costs, and other costs that are global in nature and are not allocable to the reporting segments.

The accounting policies of the reportable segments are the same as those described in note 2. We do not have any customers who represent 10 percent or more of total sales. Inter-segment sales are consummated at arm's length and are reflected at end-market reporting below. It is impracticable to provide revenue by product categories.

Year ended December 31, (dollars in thousands)	2019	2018
Net Sales:		
U.S. & Canada	$ 491,230	$ 483,741
Latin America	141,584	148,091
EMEA	123,945	138,399
Other	25,678	27,627
Consolidated	$ 782,437	$ 797,858
Segment EBIT:		
U.S. & Canada	$ 54,072	$ 36,805
Latin America	6,208	12,599
EMEA	5,529	7,219
Other	(2,663)	1,872
Total Segment EBIT	$ 63,146	$ 58,495
Reconciliation of Segment EBIT to Net Loss:		
Segment EBIT	$ 63,146	$ 58,495
Retained corporate costs	(31,884)	(31,878)
Impairment of goodwill (note 4)	(45,981)	—
Impairment of long-lived assets (notes 4, 5 & 15)	(19,171)	—
Fees associated with strategic initiative [1]	—	(2,341)
Organizational realignment	(3,341)	—
Debt refinancing fees	(525)	—
Interest expense	(22,510)	(21,979)
Provision for income taxes	(8,753)	(10,253)
Net loss	$ (69,019)	$ (7,956)
Depreciation & Amortization:		
U.S. & Canada	$ 12,547	$ 13,358
Latin America	14,758	17,457
EMEA	6,845	7,412
Other	3,359	4,431
Corporate	1,537	1,675
Consolidated	$ 39,046	$ 44,333
Capital Expenditures:		
U.S. & Canada	$ 8,464	$ 22,203
Latin America	16,090	13,527
EMEA	5,036	5,051
Other	488	745
Corporate	1,081	3,561
Consolidated	$ 31,159	$ 45,087

(1) Legal and professional fees associated with a strategic initiative that was terminated during the third quarter of 2018.

December 31, (dollars in thousands)	2019	2018
Segment Assets[1]:		
U.S. & Canada	$ 137,072	$ 152,168
Latin America	62,635	64,166
EMEA	45,454	46,576
Other	10,943	13,170
Consolidated	$ 256,104	$ 276,080

(1) Segment assets are defined as net accounts receivable plus net inventory.

Geographic data for the U.S., Mexico and Other countries for 2019 and 2018 is presented below. Net sales are based on the geographical destination of the sale. The long-lived assets include net property, plant and equipment and operating lease right-of-use assets beginning January 1, 2019.

(dollars in thousands)	United States	Mexico	All Other	Consolidated
2019				
Net sales	$ 485,443	$ 104,192	$ 192,802	$ 782,437
Long-lived assets	$ 124,062	$ 100,288	$ 64,259	$ 288,609
2018				
Net sales	$ 480,868	$ 101,656	$ 215,334	$ 797,858
Long-lived assets	$ 99,135	$ 86,775	$ 79,050	$ 264,960

20. Subsequent Event

On February 21, 2020, we signed an amendment to a lease in our EMEA segment that, among other things, extended the lease term ten years. This will result in an increase to our operating lease right-of-use assets and lease liabilities of approximately $17 million.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's Securities Exchange Act of 1934 (the "Exchange Act") reports are recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well-designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by SEC Rule 13a-15(b), the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and the Company's Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level.

Report of Management

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting refers to the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles, and includes those policies and procedures that:

(1) Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;

(2) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. 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

(3) 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.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk. Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company.

Management has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019. In making this assessment management used the criteria for effective internal control over financial reporting as described in "Internal Control - Integrated Framework" issued by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission (the COSO framework) in 2013. Management has concluded that the Company's internal control over financial reporting was effective as of the end of the most recent fiscal year. The Company's independent registered public accounting firm, Deloitte & Touche LLP, that audited the Company's Consolidated Financial Statements, has issued an attestation report on the Company's internal control over financial reporting.

Changes in Internal Control

We implemented technology, processes and controls related to the global recording of ROU assets and lease liabilities in connection with the adoption of ASC 842, "Leases," as described in Notes 2 and 15 of the financial statements. Otherwise, there have been no changes in our controls over financial reporting during the most recent fiscal year that have materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

Item 9B. Other Information

On February 21, 2020, William A. Foley notified the Company that he intends to retire from employment with the Company, with his last day of employment being February 29, 2020. Mr. Foley will continue to serve as chairman of the board of directors of the Company after his employment ends.

On February 23, 2020, the Board of Directors approved a new form of indemnity agreement (the "Indemnity Agreement"), which supersedes any prior form of indemnity agreement, and authorized the Company to enter into an indemnity agreement in substantially the form of the Indemnity Agreement with each of the Company's directors and executive officers (each, an "Indemnitee"). The Indemnity Agreement requires the Company to indemnify each Indemnitee against certain liabilities that may arise by reason of the Indemnitee's status as a director or executive officer of the Company, to advance expenses incurred as a result of a proceeding as to which the Indemnitee may be indemnified, and to maintain directors and officers insurance coverage for a period of six years after the date on which the Indemnitee separates from service, in all cases, subject to certain exceptions and limitations specified in the Indemnity Agreement. The Indemnity Agreement is intended to provide indemnification rights to each Indemnitee to the fullest extent permitted by the General Corporation Law of the State of Delaware and shall be in addition to any other rights the directors and executive officers may have under the Company's certificate of incorporation and by-laws. The preceding description of the Indemnity Agreement does not purport to be complete and is qualified in its entirety by reference to the Indemnity Agreement, the form of which is filed as Exhibit 10.23 hereto and incorporated herein by reference.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information with respect to executive officers of Libbey is set forth in Libbey's Proxy Statement for the 2020 annual meeting of stockholders under the caption "Libbey Executive Officers" and is hereby incorporated by reference. Information with respect to the members of the Board of Directors of Libbey is set forth in Libbey's Proxy Statement for the 2020 annual meeting of stockholders under the caption "Libbey Board of Directors" and is hereby incorporated by reference. Certain information regarding compliance with Section 16(a) of the Exchange Act is incorporated herein by reference to the information set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in the Proxy Statement. Information with respect to the Audit Committee members, the Audit Committee financial experts, and material changes in the procedures by which shareholders can recommend nominees to the Board of Directors is incorporated herein by reference to the information set forth under the captions "Libbey Board of Directors", "What are the roles of the Board's committees?" and "How do shareholders nominate candidates for the Board?" in the Proxy Statement.

Libbey's Code of Business Ethics and Conduct applicable to its Directors, Officers (including Libbey's principal executive officer and principal financial and accounting officer) and employees, as well as the Audit Committee Charter, Nominating and Governance Committee Charter, Compensation Committee Charter and Corporate Governance Guidelines are posted on Libbey's website at www.libbey.com. Libbey's Code of Business Ethics and Conduct is also available to any shareholder who submits a request in writing addressed to Jennifer M. Jaffee, Senior Vice President, General Counsel and Secretary, Libbey Inc., 300 Madison Avenue, P.O. Box 10060, Toledo, Ohio 43699-0060. If Libbey amends or waives any of the provisions of the Code of Business Ethics and Conduct applicable to the principal executive officer or principal financial and accounting officer, Libbey intends to disclose the subsequent information on Libbey's website.

Item 11. Executive Compensation

Information regarding executive compensation is incorporated herein by reference to the information set forth under the caption "Executive Compensation" in the Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information regarding security ownership of certain beneficial owners and management is incorporated herein by reference to the information set forth under the captions "Who are the largest owners of Libbey stock?" and "How much stock do our directors and officers own?" in the Proxy Statement. Information regarding equity compensation plans is incorporated herein by reference to the information set forth under the caption "Equity Compensation Plan Information" in the Proxy Statement.

Item 13. Certain Relationships and Related Transactions and Director Independence

Information regarding certain relationships and related transactions and director independence is incorporated herein by reference to the information set forth under the caption "Certain Relationships and Related Transactions" and "How does our Board determine which directors are independent?" in the Proxy Statement.

Item 14. Principal Accounting Fees and Services

Information regarding principal accounting fees and services is incorporated herein by reference to the information set forth under the captions "What are Libbey's pre-approval policy and procedures?" and "What fees did Libbey pay to its auditors for fiscal 2019 and 2018?" in the Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules

a) The following documents are filed as part of this report:

1. Consolidated financial statements:

2. Financial Statement Schedules:

Not applicable

3. Exhibit Index

The documents listed in the accompanying Exhibit Index are filed or incorporated by reference as part of this report.

EXHIBIT INDEX

S-K Item 601 No.	Document
3.1	Restated Certificate of Incorporation of Libbey Inc. (filed as Exhibit 3.1 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 1993 and incorporated herein by reference).
3.2	Amended and Restated By-Laws of Libbey Inc. (filed as Exhibit 3.2 to Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 and incorporated herein by reference).
3.3	Certificate of Incorporation of Libbey Glass Inc. (filed as Exhibit 3.3 to Libbey Glass Inc.'s Form S-4 (Reg No. 333-139358) filed December 14, 2006, and incorporated herein by reference).
3.4	Amended and Restated By-Laws of Libbey Glass Inc. (filed as Exhibit 3.4 to Libbey Glass Inc.'s Form S-4 (Reg No. 333-139358) filed December 14, 2006, and incorporated herein by reference).
4.1	Amended and Restated Registration Rights Agreement, dated October 29, 2009, among Libbey Inc. and Merrill Lynch PCG, Inc. (filed as Exhibit 4.4 to Registrant's Form 8-K filed October 29, 2009 and incorporated herein by reference).
4.2	Amended and Restated Credit Agreement, dated February 8, 2010, among Libbey Glass Inc. and Libbey Europe B.V., as borrowers, Libbey Inc., as a loan guarantor, the other loan parties party thereto as guarantors, JPMorgan Chase Bank, N.A., as administrative agent with respect to the U.S. loans, J.P. Morgan Europe Limited, as administrative agent with respect to the Netherlands loans, Bank of America, N.A. and Barclays Capital, as Co-Syndication Agents, Wells Fargo Capital Finance, LLC, as Documentation Agent, and the other lenders and agents party thereto (filed as Exhibit 4.1 to Libbey Inc.'s Current Report on Form 8-K filed on February 12, 2010 and incorporated herein by reference).
4.3	Amendment No. 1 to Amended and Restated Credit Agreement dated as of January 14, 2011 among Libbey Glass Inc. and Libbey Europe B.V. as borrowers, the other loan parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders with respect to the U.S. loans, and J.P. Morgan Europe Limited, as Administrative Agent for the Lenders with respect to the Netherlands loans (filed as Exhibit 4.6 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011 and incorporated herein by reference).
4.4	Amendment No. 2 to the Amended and Restated Credit Agreement dated as of April 29, 2011 (filed as Exhibit 10.1 to Libbey Inc.'s Current Report on Form 8-K filed on May 3, 2011 and incorporated herein by reference).
4.5	Amendment No. 3 to Amended and Restated Credit Agreement dated as of September 14, 2011 among Libbey Glass Inc. and Libbey Europe B.V., as borrowers, the other loan parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders with respect to the U.S. loans, and J.P. Morgan Europe Limited, as Administrative Agent for the Lenders with respect to the Netherlands loans (filed as Exhibit 4.8 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011 and incorporated herein by reference).
4.6	Amendment No. 4 to Amended and Restated Credit Agreement dated as of May 18, 2012 among Libbey Glass Inc. and Libbey Europe B.V., as borrowers, the other loan parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders with respect to the U.S. loans, and J.P. Morgan Europe Limited, as Administrative Agent for the Lenders with respect to the Netherlands loans (filed as Exhibit 4.1 to Libbey Inc.'s Current Report on Form 8-K filed on May 18, 2012 and incorporated herein by reference).
4.7	Amendment No. 5 to Amended and Restated Credit Agreement dated as of April 9, 2014 among Libbey Glass Inc. and Libbey Europe B.V., as borrowers, the other loan parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders with respect to the U.S. loans, and J.P. Morgan Europe Limited, as Administrative Agent for the Lenders with respect to the Netherlands loans (filed as Exhibit 4.1 to Libbey Inc.'s Current Report on Form 8-K filed on April 9, 2014 and incorporated herein by reference).
4.8	Term Loan B Credit Facility, dated April 9, 2014, among Libbey Glass Inc., Libbey Inc., and the domestic subsidiaries of Libbey Glass Inc. (filed as Exhibit 4.2 to Libbey Inc.'s Current Report on Form 8-K filed on April 9, 2014 and incorporated herein by reference).
4.9	Intercreditor Agreement, dated April 9, 2014, among Libbey Glass Inc., Libbey Inc., and the domestic subsidiaries of Libbey Glass Inc. (filed as Exhibit 4.3 to Libbey Inc.'s Current Report on Form 8-K filed on April 9, 2014 and incorporated herein by reference).
4.10	Amendment No. 6 to Amended and Restated Credit Agreement dated as of December 7, 2017 among Libbey Glass Inc. and Libbey Europe B.V., as borrowers, the other loan parties thereto, JPMorgan Chase Bank, N.A., as Administrative Agent for the Lenders with respect to the U.S. loans, and J.P. Morgan Europe Limited, as Administrative Agent for the Lenders with respect to the Netherlands loans (filed as Exhibit 4.1 to Libbey Inc.'s Current Report on Form 8-K filed on December 11, 2017 and incorporated herein by reference).

S-K Item 601 No.	Document
10.1	Pension and Savings Plan Agreement dated as of June 17, 1993 between Owens-Illinois, Inc. and Libbey Inc. (filed as Exhibit 10.4 to Libbey Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 1993 and incorporated herein by reference).
10.2	Cross-Indemnity Agreement dated as of June 24, 1993 between Owens-Illinois, Inc. and Libbey Inc. (filed as Exhibit 10.5 to Libbey Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 1993 and incorporated herein by reference).
10.3	Libbey Inc. Guarantee dated as of October 10, 1995 in favor of The Pfaltzgraff Co., The Pfaltzgraff Outlet Co. and Syracuse China Company of Canada Ltd. guaranteeing certain obligations of LG Acquisition Corp. and Libbey Canada Inc. under the Asset Purchase Agreement for the Acquisition of Syracuse China (Exhibit 2.0) in the event certain contingencies occur (filed as Exhibit 10.17 to Libbey Inc.'s Current Report on Form 8-K dated October 10, 1995 and incorporated herein by reference).
10.4	Susquehanna Pfaltzgraff Co. Guarantee dated as of October 10, 1995 in favor of LG Acquisition Corp. and Libbey Canada Inc. guaranteeing certain obligations of The Pfaltzgraff Co., The Pfaltzgraff Outlet Co. and Syracuse China Company of Canada, Ltd. under the Asset Purchase Agreement for the Acquisition of Syracuse China (Exhibit 2.0) in the event certain contingencies occur (filed as Exhibit 10.18 to Libbey Inc.'s Current Report on Form 8-K dated October 10, 1995 and incorporated herein by reference).
10.5	First Amended and Restated Libbey Inc. Executive Savings Plan (filed as Exhibit 10.23 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 1996 and incorporated herein by reference).
10.6	Libbey Inc. Amended and Restated Deferred Compensation Plan for Outside Directors (incorporated by reference to Exhibit 10.61 to Libbey Glass Inc.'s Registration Statement on Form S-4; File No. 333-139358).
10.7	2009 Director Deferred Compensation Plan (filed as Exhibit 10.51 to Libbey Inc's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008 and incorporated herein by reference).
10.8	Executive Deferred Compensation Plan (filed as Exhibit 10.52 to Libbey Inc's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008 and incorporated herein by reference).
10.9	Form of Amended and Restated Indemnity Agreement dated as of December 31, 2008 between Libbey Inc. and the respective officers identified on Appendix 1 thereto (filed as exhibit 10.36 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008 and incorporated herein by reference).
10.10	Form of Amended and Restated Indemnity Agreement dated as of December 31, 2008 between Libbey Inc. and the respective outside directors identified on Appendix 1 thereto (filed as exhibit 10.37 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008 and incorporated herein by reference).
10.11	Amended and Restated Libbey Inc. Supplemental Retirement Benefit Plan effective December 31, 2008 (filed as exhibit 10.38 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008 and incorporated herein by reference).
10.12	Amendment to the First Amended and Restated Libbey Inc. Executive Savings Plan effective December 31, 2008 (filed as exhibit 10.39 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008 and incorporated herein by reference).
10.13	Amended and Restated 2006 Omnibus Incentive Plan of Libbey Inc. (filed as Exhibit 10.29 to Libbey Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2010 and incorporated herein by reference).
10.14	Form of Indemnity Agreement dated as of February 7, 2012 between Libbey Inc. and Stephanie A. Streeter (filed as Exhibit 10.25 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2011 and incorporated herein by reference).
10.15	Form of Change in Control Agreement dated as of August 1, 2012 (filed as Exhibit 10.1 to Libbey Inc.'s Current Report on Form 8-K filed on July 19, 2012 and incorporated herein by reference) (as to James C. Burmeister).
10.16	Letter agreement between Libbey Inc. and William A. Foley dated as of January 12, 2016 and revised as of February 9, 2016 (filed as Exhibit 10.22 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2015 and incorporated herein by reference).

S-K Item 601 No.	Document
10.17	Form of Change in Control Agreement dated as of November 13, 2017 (filed as Exhibit 10.1 to Libbey Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018 and incorporated herein by reference) (as to Sarah Zibbel).
10.18	Form of Change in Control Agreement dated as of March 25, 2019 (filed as Exhibit 10.2 to Libbey Inc.'s Current Report on Form 8-K filed on March 12, 2019 and incorporated herein by reference) (as to Michael P. Bauer).
10.19	Amended and Restated Libbey Inc. 2016 Omnibus Incentive Plan (filed as Appendix B to the Company's Proxy Statement on Form DEF 14A filed on March 28, 2019 and incorporated herein by reference).
10.20	Line of credit between Crisa Libbey Mexico S. de R.L. de C.V. and Banco Santander Mexico, guaranteed by Libbey Mexico, S. de R.L. de C.V., dated as of June 17, 2019 (English translation of Spanish original) (filed as Exhibit 10.1 to Libbey Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 and incorporated herein by reference).
10.21	Executive Severance Compensation Policy dated as of August 13, 2019 (filed as Exhibit 10.1 to Libbey Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 and incorporated herein by reference).
10.22	Form of Change in Control Agreement dated as of December 1, 2019 (filed herein) (as to Juan Amezquita and Jennifer M. Jaffee).
10.23	Form of Indemnity Agreement dated as of February 23, 2020 between Libbey Inc. and the respective officers and directors identified on Appendix I thereto (filed herein).
21	Subsidiaries of the Registrant (filed herein).
23	Consent of Deloitte & Touche LLP (filed herein).
24	Power of Attorney (filed herein).
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a) (filed herein).
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) or Rule 15d-14(a) (filed herein).
32.1	Certification Pursuant To 18 U.S.C. Section 1350, As Adopted Pursuant To Section 906 Of The Sarbanes-Oxley Act of 2002 (filed herein).
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

Item 16. Form 10-K 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.

Libbey Inc.

By: /s/ Juan Amezquita
Juan Amezquita
Senior Vice President, Chief Financial Officer

Date: February 27, 2020

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 indicated.

Signature	Title
Michael P. Bauer	Chief Executive Officer
William A. Foley	Executive Chairman of the Board of Directors
John C. Orr	Lead Director
Carol B. Moerdyk	Director
Deborah G. Miller	Director
Ginger M. Jones	Director
Eileen A. Mallesch	Director
Steve H. Nave	Director

By: /s/ Juan Amezquita
Juan Amezquita
Attorney-In-Fact

Date: February 27, 2020

/s/ Juan Amezquita
Juan Amezquita
Senior Vice President, Chief Financial Officer
(Principal Accounting Officer)

Date: February 27, 2020

Michael P. Bauer
Chief Executive Officer
Libbey Inc.

[DATE]

[NAME]
[ADDRESS]

Dear [NAME]:

Libbey Inc. ("**Libbey**") considers it essential to the best interests of its shareholders to foster the continuous employment of key management personnel. In that connection, Libbey's Board of Directors (the "**Board**") recognizes that, as is the case with many publicly held companies, the possibility of a change in control of Libbey may exist and that the uncertainty and questions that it may raise among management could result in the departure or distraction of management personnel to the detriment of Libbey and its shareholders.

The Board has decided to reinforce and encourage the continued attention and dedication of members of Libbey's management, including you, to their assigned duties without the distraction arising from the possibility of a change in control of Libbey. In order to induce you to remain in its employ, Libbey agrees that after this letter agreement (this "**Agreement**") has been fully executed, you will receive the severance benefits set forth in this Agreement if your employment with Libbey terminates under the circumstances described below in connection with a Change in Control (as defined in Section 2).

1. **Agreement Term**. The term of this Agreement begins [DATE], and continues through December 31, 2020. Beginning January 1, 2021 and each January 1 thereafter, this Agreement's term will extend automatically for one additional year unless Libbey gives you, not later than September 30 of the preceding calendar year, written notice that Libbey does not wish to extend this Agreement for the subsequent year. For example, if Libbey does not desire to renew this Agreement for the 2021 calendar year, Libbey must, on or before September 30, 2020, give you written notice that this Agreement will not be renewed for the 2021 calendar year. If a Change in Control occurs during the initial or any extended term of this Agreement, the term of this Agreement will continue for a period of at least 24 months beyond the month in which the Change in Control occurred.

2. **Change in Control**. For purposes of this Agreement, a Change in Control will be deemed to occur if:

(a) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of Libbey representing 30% or more of the combined voting power of Libbey's then outstanding securities. For purposes of this Agreement, the term "**Person**" is used as the term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"). However, the term "**Person**" does not include Libbey, any trustee or other fiduciary holding securities under an employee benefit plan of Libbey, or any corporation owned, directly or indirectly, by the shareholders of Libbey in substantially the same proportions as their ownership of stock of Libbey. For purposes of this Agreement, the term "**Beneficial Owner**" has the meaning given to it in Rule 13d-3 under the Exchange Act;

(b) during any period of two consecutive years (not including any period before signing this Agreement), Continuing Directors cease for any reason to constitute at least a majority of the Board. The term "**Continuing Directors**" means (i) individuals who were members of the Board at the beginning of the 2-year period referred to above and (ii) any individuals elected to the Board, after the beginning of the 2-year period referred to above, by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously approved in accordance with this provision. Notwithstanding the immediately preceding sentence, an individual who is elected to the Board after the beginning of the 2-year period will not be deemed a Continuing Director if the individual was designated by a person who has entered into an agreement with Libbey to effect a transaction described in Sections 2(a), (c) or (d);

(c) the consummation of a merger or consolidation of Libbey with any other corporation (or other entity), other than a merger or consolidation that would result in the voting securities of Libbey outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than two-thirds of the combined voting power of the voting securities of Libbey or the surviving entity outstanding immediately after the merger or consolidation; or

(d) the consummation of a plan of complete liquidation of Libbey or an agreement for the sale or disposition by Libbey of all or substantially all of Libbey's assets.

3. **Termination in Connection with Change in Control.**

(a) *General*. If, (i) during this Agreement's term, a Change in Control occurs and Libbey terminates your employment without Cause, or you terminate your employment for Good Reason, within the 2-year period immediately following the date on which the Change in Control occurs, or (ii) during this Agreement's term, Libbey terminates your employment without Cause, or you terminate your employment for Good Reason, and within six months thereafter a Change in Control occurs, then you will be entitled to the benefits provided in Section 4, and those benefits will be paid despite this Agreement's subsequent expiration.

Despite anything to the contrary in this Agreement, you will not be entitled to any payment under Section 4 if your employment terminates as a result of your death or Permanent Disability. "**Permanent Disability**" means any incapacity due to physical or mental illness as a result of which you are absent from the full-time performance of your duties with Libbey for six consecutive months and do not return to the full-time performance of your duties within 30 days after Libbey gives you a Termination Notice.

(b) *Cause*. "**Cause**" means any of the following events: (i) your willful and continued failure (other than as a result of your incapacity due to physical or mental illness or after you issue a Termination Notice for Good Reason) to substantially perform your duties with Libbey after the Board has delivered to you a written demand for substantial performance that specifically identifies the manner in which the Board believes that you have not substantially performed your duties; (ii) your willful and continued failure (other than as a result of your incapacity due to physical or mental illness or after you issue a Termination Notice for Good Reason) to substantially follow and comply with the Board's specific and lawful directives, after the Board has delivered to you a written demand for substantial performance that specifically identifies the manner in which the Board believes that you have not substantially followed or complied with the Board's directives; (iii) your commission of an act of fraud or dishonesty that causes harm to Libbey; (iv) your material failure to comply with a Libbey policy or code of conduct; (v) your material breach of any material obligation under any written agreement between you and Libbey; or (vi) your engagement in illegal conduct or gross misconduct that causes harm to Libbey. Termination of your employment will not be deemed to be for Cause unless and until Libbey delivers to you a copy of a resolution duly adopted by the affirmative vote of a majority of the entire membership of the Board specifying in reasonable detail the particulars of the conduct constituting Cause.

(c) *Good Reason*. "**Good Reason**" means the occurrence of any of the following circumstances without your consent unless such circumstances are fully corrected (if such circumstances are capable of correction) before the Termination Date specified in the applicable Termination Notice:

(i) You cease to be an executive officer of the Company;

(ii) Libbey's reduction of your annual base salary and the reduction is not applied in the same or similar manner to similarly situated employees;

(iii) a material reduction in your annual incentive compensation opportunity established for the position you hold and the reduction is not applied in the same or similar manner to similarly situated employees;

(iv) a material reduction or elimination of an executive benefit or an employee benefit and the reduction is not applicable to similarly situated employees in the same or similar manner; or

(v) Libbey's material breach of any written agreement between Libbey and you and Libbey does not remedy it within 60 days after receiving from you written notice of the breach.

If you do not deliver to the Chief Executive Officer, within 90 days after the date on which you knew or should have known of the Good Reason event, written notice specifying in reasonable detail the particulars giving rise to the Good Reason Event, you will be deemed conclusively to have waived that particular Good Reason Event (but not any subsequent Good Reason Event) even if your failure to give timely notice of the Good Reason event is a result of your incapacity due to physical or mental illness. In all events, Libbey will be given a 30-day period to cure or remedy the condition giving rise to your notice.

(d) *Termination Notice*. Any purported termination of your employment by Libbey or by you (other than termination as a result of your death, in which case your employment will terminate automatically, or as a result of resignation or retirement that is not at Libbey's written request and is not for Good Reason) will be communicated by written Termination Notice to the other party hereto in accordance with Section 9. "**Termination Notice**" means a written notice that indicates the specific termination provision in this Agreement relied upon and states in reasonable detail the facts and circumstances claimed to provide a basis for terminating your employment under the provision so indicated.

(e) *Termination Date, Etc*. "**Termination Date**" means the date on which your employment with Libbey terminates. Despite any other provision of this Agreement to the contrary, if you incur a termination of employment that is not a "separation from service" within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended ("**Section 409A**"), your right to all amounts payable upon such termination of employment under Section 4 will vest on the Termination Date, but payment of any amount subject to Section 409A will be deferred until you incur a separation from service (or, if required by Section 4(b), six months thereafter).

4. **Compensation Upon Termination**.

(a) If you terminate your employment for Good Reason or Libbey terminates your employment without Cause (other than as a result of your death or Permanent Disability), in each case in accordance with Section 3(a), then you will be entitled to the benefits provided below:

(i) The following accrued benefits: (A) your base salary earned through the Termination Date; (B) only to the extent required by applicable law, any earned but unpaid vacation pay as of the Termination Date; (C) reimbursement of any expenses properly incurred before the Termination Date in accordance with Libbey's policy on business expense reimbursement; (D) any amount or benefits to which you are entitled under any pension plan, retirement savings plan, equity participation plan, stock purchase plan, medical benefit plan or other benefit plan or employment policy maintained by Libbey in accordance with the terms of the plan, policy or arrangement; and (E) any incentive compensation earned but not yet paid for a performance period ended before the Termination Date at the time it would otherwise have been paid but for the termination;

(ii) In lieu of any further salary payments to you for periods after the Termination Date, Libbey will pay to you, at the time specified in Section 4(b), a lump-sum severance payment equal to the sum of the following:

(A) two times your annual base salary at the rate in effect as of the date on which Termination Notice is given (but without regard to any reduction in base salary that constituted, or would have constituted, Good Reason); and

(B) two times your target annual incentive compensation opportunity as in effect as of the date on which Termination Notice is given (but without regard to any reduction in incentive compensation opportunities that constituted, or would have constituted, Good Reason);

(iii) With respect to the annual incentive compensation opportunity during the year in which the Termination Date occurs, you will be paid a prorated amount based on actual performance for the year. The amount payable under this clause will be paid, subject to Section 4(b), between January 1 and March 15 of the year following the year in which the Termination Date occurs;

(iv) Any equity compensation awards that are subject to time vesting requirements and remain unvested at the Termination Date will become fully vested as of the Termination Date. If a Change in Control occurs within six months following a termination by Libbey without Cause or termination by you for Good Reason, then any equity compensation awards that were subject to time vesting requirements and remained unvested as of the Termination Date will become vested as of the date of the Change in Control.

(v) Executive outplacement services paid for by Libbey, with the following qualifications: (i) Libbey is not required to pay any amount for such services that exceeds 15% of your annual base salary at the time of termination (without regard to any reduction in base salary that constituted, or would have constituted, Good Reason); and (ii) you receive the services before the last day of your second taxable year following the taxable year in which your "separation from service" occurred.

(vi) Continuation of your medical, prescription drug, dental and life insurance benefits (collectively, "**Insurance Benefits**") for 18 months following the Termination Date or until such earlier time as you receive medical or life insurance coverage through a future employer. You will continue to pay the employee portion of costs for the continued Insurance Benefits on a monthly basis.

(vii) You will be entitled to financial planning services paid for by Libbey. But Libbey is not required to pay any amount for the services that exceeds $10,000.

(b) The payments provided for in this Section 4 will be made not later than the fifth business day following the Termination Date or the Change in Control; provided, however, that if Libbey, in its sole discretion, determines that the Change in Control does not constitute a "change in control event" as defined in Section 409A, then all such payments that (i) Libbey determines are not "Section 409A Payments" or (ii) exceed the amount that would have been paid had the termination not occurred in connection with a Change in Control, will be paid in a lump sum and the remaining installments will be paid at the time they would have been paid had the termination not occurred in connection with a Change in Control (or, if earlier, not more than five days after a change in control event, as defined in Section 409A, occurs). "**Section 409A Payments**" means amounts that constitute deferred compensation subject to Section 409A. Despite any provisions of this Section 4 to the contrary, if you are a "specified employee" (within the meaning of Section 409A and determined pursuant to policies adopted by Libbey) on the Termination Date, amounts that otherwise would be payable under Section 4(c) (as well as any other payment or benefit that you are entitled to receive upon your separation from service and that would be considered a Section 409A Payment), to the extent that such amounts constitute Section 409A Payments during the six-month period immediately following the Termination Date (the "**Delayed Payments**") will instead be paid or made available on the earlier of (A) the first day of the seventh month following your Termination Date and (B) your death. For purposes of this Agreement, all amounts payable under Section 4(c) will be considered 409A Payments except to the extent that Libbey, in its sole discretion, determines that such amounts satisfy an exception to Section 409A, including the exception for short-term deferrals set forth in Treasury Regulation §1.409A-1(b)(4) and the exception for certain separation pay plans set forth in Treasury Regulation §1.409A-1(b)(9)(iii), which will be applied to all installments beginning with the first installment that does not qualify as a short-term deferral until the limitation on such separation pay plans is reached. In connection with Libbey's determination as set forth in the preceding sentence, you may furnish Libbey with a tax opinion or other evidence that an exception applies but Libbey will not be bound by any such opinion or evidence.

(c) Payment of any amount to you and the provision of any benefits to you, or on your behalf, under this Section 4 and your acceptance of such amounts will be conditioned on you executing and delivering to Libbey, no later than 60 days after the Termination Date, a general waiver and release of claims in the form attached hereto as Exhibit A or in such other form as Libbey may reasonably request to provide a complete release of all claims and causes of action you or your estate may have against Libbey, except claims and causes of action arising out of, or related to, Libbey's obligations under this Agreement and Claims (as defined in Exhibit A) for vested benefits under any pension plan, retirement plan and savings plan, rights under any equity compensation plan and stock purchase plan and rights to continuation of medical care coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 and any similar state law.

(d) There will be no offset to any compensation or other benefits otherwise payable to you, or on your behalf, under Section 4 as a result of your receipt of any pension, retirement or other benefit payments (including but not limited to accrued vacation) except as provided by Section 9(m).

5. **Successors; Binding Agreement**.

(a) Libbey will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of Libbey to expressly assume and agree to perform this Agreement in the same manner and to the same extent that Libbey would be required to perform it if no such succession had taken place. Libbey's failure to obtain the assumption and agreement before the effectiveness of any such succession will be a breach of this Agreement and will entitle you to terminate your employment and receive compensation from Libbey in the same amount and on the same terms to which you would be entitled hereunder if you terminate your employment for Good Reason following a Change in Control. Unless expressly provided otherwise, "Libbey" as used herein will mean Libbey as defined in this Agreement and any successor to its business and/or assets as aforesaid.

(b) This Agreement will inure to the benefit of and be enforceable by you and your personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees. If you die while any amount would still be payable to you hereunder had you continued to live, all such amounts, unless otherwise provided herein, will be paid in accordance with this Agreement to your devisee, legatee or other designee or, if there is no such designee, to your estate.

6. **Personal Property, Records and Confidential Data**.

(a) You acknowledge and agree that all personal property and equipment furnished to or paid for by Libbey or prepared by you in the course of or incident to your employment by Libbey belongs to Libbey and will be promptly returned to Libbey upon termination of the employment. "**Personal property**" includes, without limitation, all books, manuals, records, reports, notes, contracts, lists, blueprints, and other documents, or materials, or copies thereof (including computer files), all computers, lap tops, personal digital assistants, cellular phones and other electronic devices and all other proprietary information relating to the business of Libbey or any affiliate, including information stored on any non-Libbey owned or furnished device, network, storage location or media in your possession or control. Following termination of employment, you agree not to retain any written or other tangible material containing any proprietary information or Confidential Information.

(b) You acknowledge that in connection with performing your duties during this Agreement's term, Libbey will make available to you, or you will have access to, certain Confidential Information. You acknowledge and agree that any and all Confidential Information learned or obtained by you during the course of your employment by Libbey or otherwise (including, without limitation, information that you obtained through or in connection with your stock ownership in and employment by Libbey), whether developed by you alone or in conjunction with others or otherwise, will be and is Libbey's property.

(c) You will keep all Confidential Information confidential and will not use the Confidential Information other than in connection with your discharge of your duties hereunder. You will safeguard the Confidential Information from unauthorized disclosure. This covenant is not intended to, and does not limit in any way, any of your duties or obligations to Libbey under statutory or common law not to disclose or to make personal use of the Confidential Information or trade secrets.

(d) After your termination of employment, as soon as possible after Libbey's written request, you will return to Libbey all written or electronic Confidential Information that has been provided to you, and you will destroy or return (at Libbey's option) all copies of any analyses, compilations, studies or other documents prepared by you or for your use containing or reflecting any Confidential Information. Within ten business days of receiving such request, you will deliver to Libbey a notarized document certifying that the Confidential Information has been returned or destroyed in accordance with this Section 6(d). However, if the Confidential Information is contained on books, manuals, records, reports, notes, contracts, lists, blueprints, documents, materials and copies thereof (including computer files), computers, lap tops, personal digital assistants, cellular phones or other electronic devices belonging to Libbey, then such property with all data including Confidential Information, will be returned to Libbey.

(e) For the purposes of this Agreement, "**Confidential Information**" means all information not generally known to the public, regardless of form or format, relating directly or indirectly to the business of Libbey or any of its corporate affiliates or subsidiaries, or any existing or prospective customer, supplier, investor, or other associated third party, or of any other person or entity that has entrusted information to Libbey in confidence. By way of illustration only and without limiting the preceding sentence, Confidential Information includes information relating to business processes, practices or methods; policies, plans, publications, manuals, records, articles or other documents; research; operations; services; strategies; techniques; agreements, contracts or terms of agreements; transactions, potential transactions, negotiations or pending negotiations; inventions, unpublished patent applications, know-how or trade secrets; computer programs, software, applications, operating systems, software design, web design, databases or information systems or any data contained in such systems; work-in-process; supplier or vendor information; financial information or results, accounting information, internal control information or accounting records; legal information; sales or marketing information, including market studies, advertising information, product plans, pricing information, customer lists or other customer information or sales forecasts; credit information; design information; staffing or personnel information, including employee lists or payroll information; and supplier or vendor lists and cost information. The above list is not exhaustive, and Confidential Information also includes other information marked or otherwise identified or treated as confidential or proprietary, or that would otherwise appear to a reasonable person to be confidential or proprietary in the context and circumstances in which the information is known or used. Confidential Information does not lose its status under this Agreement if it is not marked as "confidential." Confidential Information includes information developed by you in the course of your employment by Libbey as if Libbey furnished the same Confidential Information to you in the first instance. For purposes of this Agreement, the Confidential Information will not include and your obligations under this Section 6 will not extend to (i) information available in the public domain and (ii) information required to be disclosed by lawful order of a court of competent jurisdiction, provided that you give Libbey notice of the disclosure requirement and cooperate with Libbey in connection with any action by Libbey to seek a protective order or confidential treatment for the information.

(f) Despite anything in this agreement to the contrary, you will not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made (i) in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney, but solely for the purpose of reporting or investigating a suspected violation of law; or (ii) in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

(g) If you file a lawsuit against Libbey for retaliation for reporting a suspected violation of law, you may disclose the trade secret to your attorney and use the trade secret information in the court proceeding, if you (i) file any document containing the trade secret under seal and (ii) do not disclose the trade secret, except pursuant to court order.

(h) Nothing in this Agreement limits your ability to file a charge or complaint with the Equal Employment Opportunity Commission, the National Labor Relations Board, the Occupational Safety and Health Administration, the Securities and Exchange Commission, the Financial Industry Regulatory Authority, or any other federal, state, or local governmental agency or commission ("**Government Agencies**"). This Agreement does not limit your ability to communicate with Government Agencies or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including providing documents or other information, without notice to Libbey. This Agreement does not limit your right to receive an award for information provided to any Government Agencies. Nothing in this Agreement in any way prohibits or intends to restrict or impede you from exercising protected rights under Section 7 of the National Labor Relations Act.

(i) Any reference to Libbey in this Section 6 includes Libbey and its affiliates.

7. **Additional Covenants**.

(a) *Non-Interference with Customer Accounts*. You covenant and agree that (i) during employment and (ii) for a period of 12 months beginning on the Termination Date, except as may be required by your employment by Libbey, you will not directly or indirectly, personally or on behalf of any other person, business, corporation, or entity, contact or do business with any customer of Libbey with respect to any product, business activity or service which is competitive with any product, business, activity or service of the type sold or provided by Libbey.

(b) *Non-Competition*. In consideration of and in connection with the benefits provided to you under this Agreement and in order to protect Libbey's goodwill, you hereby agree that if your employment terminates under conditions giving rise to payment under Section 4, then, unless Libbey otherwise agrees in writing, for a period of 12 months beginning on the Termination Date, you will not engage in any Prohibited Activity. "**Prohibited Activity**" means activity in which you contribute your knowledge, directly or indirectly, in whole or in part, as an employee, employer, owner, operator, manager, advisor, consultant, agent, partner, director, stockholder, officer, volunteer, intern, or any other similar capacity, to an entity engaged in the same or similar business as Libbey, including those who sell, in competition with Libbey, the same type of products as are sold by Libbey, including without limitation glass tableware or other glass products, ceramic dinnerware, metalware and plastic supplies to the foodservice, retail (whether brick and mortar or internet) and business-to-business channels of distribution. Prohibited Activity also includes activity that may require or inevitably require disclosure of trade secrets, proprietary information, or Confidential Information. Without limiting the foregoing, Libbey regards the following business operations as its primary, but not exclusive, competitors: The Oneida Group, Inc., including Anchor Hocking and Oneida Ltd.; Arc International and its affiliates, including Cardinal International, Inc.; the glass tableware business of Owens-Illinois, Inc.; Luigi Bormioli; Bormioli Rocco Casa SpA; Durobor; Vicrila; Crilamex; the Kedaung group of companies of Indonesia; the Sisecam group of companies of Turkey including Pasabahce; Ocean Glass, Anhui DeLi Glassware Co., Ltd.; Stone Island; and any distributor of products manufactured or sold by any of the preceding competitors. Nothing in this Agreement prohibits you from purchasing or owning less than five percent (5%) of the publicly traded securities of any corporation if such ownership represents a passive investment and you are not a controlling person of, or a member of a group that controls, that corporation.

(c) *No Diversion*. You covenant and agree that in addition to the other covenants set forth in this Section 7, (i) during your employment and (ii) for a period of 12 months following your Termination Date, you will not divert or attempt to divert or take advantage of or attempt to take advantage of any actual or potential business opportunities of Libbey (e.g., joint ventures, other business combinations, investment opportunities, potential investors in Libbey, and other similar opportunities) of which you became aware as a result of your employment with Libbey.

(d) *Non-Recruitment*. You acknowledge that Libbey has invested substantial time and effort in assembling its present workforce. Accordingly, you covenant and agree that during employment and for period of 12 months beginning on the Termination Date, you will not either for your own account or jointly with or as a manager, agent, officer, employee, consultant, partner, joint venture owner or shareholder or otherwise on behalf of any other person, firm or corporation directly or indirectly entice, solicit, attempt to solicit, or seek to induce or influence any officer or employee of Libbey to leave his or her employment with Libbey or to offer employment to any person who on or during the six-month period immediately preceding the date of the solicitation or offer was an employee of Libbey. But this Section 7(d) will not be deemed to be breached with respect to an employee or former employee of Libbey who responds to a general advertisement seeking employment or who otherwise independently initiates contact for the purpose of seeking employment.

(e) *Non-Disparagement*. You covenant and agree that during your employment and after your Termination Date, you will not denigrate or disparage Libbey or any of its directors, officers, employees, equity holders, contractors, customers or competitors ("**Covered Parties**") or Libbey's products and will not make or post any negative or critical remarks in any newspaper, electronic media, blog or other public forum concerning Libbey or the Covered Parties or their business, management or employment practices. Nothing in this paragraph will preclude you from providing truthful testimony if mandated by subpoena or court order to do so, or from cooperating fully with any valid request for information from a government agency.

(f) *Severability and Modification of any Unenforceable Covenant*. The parties intend that each covenant in this Section 7 be read and interpreted with every reasonable inference given to its enforceability. However, the parties intend also that if any term, provision or condition of the covenants in this Section 7 is held to be invalid, void or unenforceable, the remainder of the provisions thereof will remain in full force and effect and will in no way be affected, impaired or invalidated. The parties intend also that if it is determined any covenant in this Section 7 is unenforceable because of over breadth, then the covenant will be modified so as to make it reasonable and enforceable under the prevailing circumstances.

(g) *Tolling*. If you breach any covenant in this Section 7, the running of the period of restriction will automatically toll and suspend for the amount of time that the breach continues and will automatically recommence when the breach is remedied so that Libbey will receive the benefit of your compliance with the covenants in this Section 7.

(h) Any reference to Libbey in this Section 7 includes Libbey and its affiliates.

8. **No Assignment**. This Agreement and the rights and duties hereunder are personal to you and will not be assigned, delegated, transferred, pledged or sold by you without Libbey's prior written consent. You hereby acknowledge and agree that Libbey may assign, delegate, transfer, pledge or sell this Agreement and the rights and duties hereunder (a) to an affiliate of Libbey or (b) to any third party in connection with (i) the sale of all or substantially all of Libbey's assets or (ii) a stock purchase, merger, or consolidation involving Libbey. This Agreement will inure to the benefit of and be enforceable by the parties hereto, and their respective heirs, personal representatives, successors and assigns.

9. **Miscellaneous Provisions**.

(a) *Taxes*. Except as specifically provided in this Agreement, to the extent any taxes become payable by you by virtue of any payments made or benefits conferred by Libbey, Libbey will not be liable to pay or to reimburse you for any such taxes or to make any adjustment under this Agreement. Any payments otherwise due to you under this Agreement, including but not limited to base salary and any bonus compensation, will be reduced by any required withholding for federal, state and/or local taxes and other appropriate payroll deductions.

(b) *Notices*. All notices and other communications required or permitted to be given under this Agreement will be in writing to the addresses below and will be considered as properly given or made (i) if delivered personally or (ii) the fifth day after the date upon which the notice was mailed from within the United States by certified mail, return receipt requested, postage prepaid, (iii) upon receipt by facsimile (with written confirmation of receipt) or (iv) the second business day after the date deposited with an overnight delivery service.

If to you:

[NAME]
[ADDRESS]

If to Libbey:

Libbey Inc.
300 Madison Avenue
Toledo, Ohio 43604
Facsimile: [NUMBER]
Attention: [Secretary/Chief Executive Officer]

Any party's address may be changed by a notice in writing given according to this provision.

(c) *Severability*. If any provision of this Agreement is held to be invalid, illegal or unenforceable, the provision will be severed and enforced to the extent possible or modified in such a way as to make it enforceable, and the invalidity, illegality or unenforceability thereof will not affect the validity, legality or enforceability of the remainder of this Agreement.

(d) *Governing Law*. This Agreement will be governed by and construed in accordance with the laws of the State of Ohio applicable to contracts executed in and to be performed in that state, except with respect to matters of law concerning the internal corporate affairs of any corporate entity that is a party to or the subject of this Agreement, and as to those matters, the law of the jurisdiction under which the respective entity derives its powers will govern. Further, the arbitration provision in Section 9(k) will be governed solely by the Federal Arbitration Act as will any action to compel, enforce, vacate or confirm proceedings, awards or orders under the arbitration provision. The parties irrevocably agree that all actions to enforce an arbitrator's award under Section 9(k) of this Agreement will be instituted and litigated only in federal or state courts sitting in Toledo, Ohio, and each party hereby consents to the exclusive jurisdiction and venue of the court and waives any objection based on forum non conveniens.

(e) *Waiver of Jury Trial*. THE PARTIES HEREBY WAIVE, RELEASE AND RELINQUISH ANY AND ALL RIGHTS THEY MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY PROVISIONS OF THIS AGREEMENT, ANY CLAIM COVERED BY SECTION 9(L), OR TO ENFORCE AN ARBITRATOR'S AWARD UNDER SECTION 9(K) OF THIS AGREEMENT.

(f) *Counterparts*. This Agreement may be executed in counterparts, each of which will be an original, but all of which will constitute one and the same instrument.

(g) *Entire Understanding*. This Agreement including all Exhibits and Recitals hereto which are incorporated herein by this reference, together with the other agreements and documents being executed and delivered concurrently herewith by you, Libbey and certain of its affiliates, constitute the entire understanding among all of the parties hereto and supersedes any prior understandings and agreements, written or oral, among them respecting the subject matter within.

(h) *Headings*. The headings, titles and subtitles herein are inserted for convenience of reference only and are to be ignored in any construction of the provisions hereof.

(i) *Amendment*. Except as set forth in Sections 7(f) and 9(c), this Agreement will not be changed or amended unless in writing and signed by both you and the Chairman of the Board of Directors or Chief Executive Officer or unless amended by Libbey in any manner provided that your rights and benefits will not be diminished by any amendment made by Libbey without your written consent to the amendment.

(j) *Advice of Counsel*. You acknowledge (i) that you have consulted with or have had the opportunity to consult with independent counsel of your own choice concerning this Agreement and have been advised to do so by Libbey, and (ii) that you have read and understand this Agreement, are fully aware of its legal effect, and have entered into it freely based on your own judgment.

(k) *Arbitration*. The parties agree to submit to arbitration on any dispute, not contrary to law, related to this Agreement, its provisions or interpretation, any aspect of your employment relationship with Libbey and any employment-related claims you may wish to assert and agree that the arbitration process will be the exclusive, final and binding means for resolving disputes which the parties cannot themselves resolve. Any arbitration under this Agreement will be conducted in accordance with the Employment Dispute Resolution Rules of the American Arbitration Association ("**AAA**") for individual, non-aggregate claims as modified in this Agreement. Arbitration proceedings will take place in Toledo, Ohio, before a single neutral arbitrator, selected in accordance with AAA rules, who will be a lawyer. All arbitration proceedings will be confidential. Neither party will disclose any information about the evidence the other party produces in the arbitration proceeding, except in the course of judicial, regulatory, or arbitration proceedings, or as a government authority may demand. Before making any disclosure permitted by the preceding sentence, a party will give the other party reasonable advance written notice of the intended disclosure and an opportunity to prevent disclosure. Each party will have the right to depose three individuals and any expert witness designated by the other party. Additional discovery may be had only where the arbitrator so orders, upon a showing of substantial need. Only evidence that is directly relevant to the issues may be obtained in discovery. Each party bears the burden of persuasion on any claim, counterclaim or affirmative defense raised by that party. This Agreement's arbitration provisions will not prevent Libbey from obtaining injunctive relief from a court of competent jurisdiction to enforce any obligations of this Agreement or the continuing obligations of the Agreement for which Libbey may obtain provisional relief pending a decision on the merits by the arbitrator. The arbitrator will have authority to award any remedy or relief that a court of the State of Ohio or federal court located in the State of Ohio could grant in an individual action based on applicable law and the claims actually made in the arbitration. The arbitrator may allow reasonable attorney's fees as a part of the award where the discretion to allow such fees is provided under applicable Ohio or federal law to prevailing parties. Any arbitration award will be accompanied by a written statement summarizing the issues in controversy, describing the award, and explaining the reasons for the award. The arbitrator's award will be final and judgment may be entered upon the award by any court. Libbey will pat the administration and arbitrator's fees for any arbitration.

(l) *Attorney's Fees*. In addition to the attorneys' fees referred to in Section 9(k), if you prevail in any arbitration or other proceeding including to enforce an arbitration award, or appeal in connection with this Agreement in which attorneys' fees are not otherwise available to the prevailing party, Libbey will reimburse you reasonable attorneys' fees and other costs within a reasonable time after a final award or judgment in any enforcement proceeding is rendered.

(m) *Coordination with Deferred Compensation Plans*. If and to the extent that you have elected, under the Executive Deferred Compensation Plan ("**DCP**") or any other non-qualified deferred compensation plan (the plans being referred to as "deferred compensation plans"), to defer receipt of any of compensation, including without limitation any performance-based equity compensation or other equity-based compensation (as defined in the DCP), the applicable deferred compensation plan will govern as to the events upon which compensation that is subject to a deferral election is distributed to you and the timing of any such distribution. However, this Agreement will govern as to whether (and, if so, the extent to which) amounts, including without limitation annual incentive compensation, performance-based equity compensation and other equity-based compensation, that are subject to deferral elections have been earned or deemed earned at the time of any distribution event contemplated by the relevant deferred compensation plan.

(n) *Section 409A Compliance*. To the extent applicable, this Agreement is intended to comply with Section 409A. This Agreement will be administered consistent with this intent. References to Section 409A include any proposed, temporary or final regulation, or any other formal guidance, promulgated with respect to such section by the U.S. Department of Treasury or the Internal Revenue Service.

If this letter sets forth our agreement on the subject matter hereof, kindly sign and return to Libbey the enclosed copy of this letter, which will then constitute our agreement on this subject.

Sincerely,

LIBBEY INC.

By: ______________________________
Michael P. Bauer
Chief Executive Officer

Agreed and Accepted as of
[MONTH] [DAY], [YEAR]

____
Name: [NAME]

EXHIBIT A

GENERAL RELEASE AND WAIVER OF CLAIMS

The undersigned, _________________, resident of the State of ___ ("**Releasor**"), in accordance with and pursuant to the terms of Section 4(c) of the letter agreement dated [DATE], between Libbey Inc., a Delaware corporation ("**Libbey**"), and Releasor (the "**Agreement**"), and the consideration therein provided, except as set forth herein, hereby remises, releases and forever discharges and covenants not to sue, and by these presents does for Releasor and Releasor's legal representatives, trustees, beneficiaries, heirs and assigns (Releasor and the persons referred to herein, collectively, as the "**Releasing Parties**") hereby remise, release and forever discharge and covenant not to sue Libbey and its affiliates and the respective Officers, directors, employees, equity holders, agent and representatives of each of them and all of their respective successor and assigns (each a "**Released Party**" and collectively, the "**Released Parties**"), of and from any and all manner of actions, proceedings, claims, causes of action, suits, promises, damages, judgments, executions, claims and demands, of any nature whatsoever, and of every kind and description, choate and inchoate, known or unknown, at law or in equity (collectively, "**Claims**"), which the Releasing Parties, or any of them, now have or ever had, or hereafter can, will or may have, for, upon or by reason of any matter, cause or thing whatsoever, against the Released Parties, and each of them, from the beginning of time to the date hereof;

(i) arising from Releasor's employment, compensation, commissions, deferred compensation plans, insurance, stock ownership, stock options, employee benefits, and other terms and conditions of employment or employment practices of Libbey under federal, state or local law or regulation, including but not limited to the Employee Retirement Income Security Act of 1974 ("ERISA"), as amended;

(ii) relating to the termination of Releasor's employment or the circumstances surrounding thereof based on any contract, tort, whistleblower, personal injury, retaliatory, wrongful discharge or any other theory under any federal, state or local constitution, law, regulation, common law or otherwise;

(iii) relating to payment of any attorneys' fees incurred by Releasor; and

(iv) based on any alleged discrimination on the basis of race, color, religion, sex, age, national origin, handicap, disability or another category protected by any federal, state or local law or regulation, including but not limited to the Age Discrimination in Employment Act ("ADEA"), Title VII of the Civil Rights Act of 1964 ("Title VII"), the Americans with Disabilities Act ("ADA"), the Fair Labor Standards Act ("FLSA"), the Older Workers Benefit Protection Act of 1990 ("OWBPA"), or Executive Order 11246 (as any of these laws or orders may have been amended) or any other similar federal, state or local labor, employment or anti-discriminatory laws..

Notwithstanding any other provision of this General Release and Waiver of Claims, Releasor does not release or waive Releasor's rights and Claims against Libbey arising out of, or related to, the obligations of Libbey under the Agreement, Claims for Releasor's vested benefits under any pension plan, retirement plan and savings plan, rights under any equity participation plan and stock purchase plan and rights to continuation of medical care coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") and any similar state law.

Releasor represents and warrants on behalf of the Releasing Parties that there has been, and there will be, no assignment or other transfer of any right or interest in any Claims which Releasor has or may have against the Released Parties, and Releasor hereby agrees to indemnify and hold each Released Party harmless from any Claims, costs, expenses and attorney's fees directly or indirectly incurred by any of the Released Parties as a result of any person asserting any right or interest pursuant to his, her or its assignment or transfer of any such right or interest.

Nothing in this General Release will foreclose Releasor's right to consult or cooperate with any governmental agency.

Releasor agrees that if any Releasing Party hereafter commences, joins in, or in any manner seeks relief through any suit arising out of, based upon, or relating to any of the Claims released hereunder, or in any manner asserts against any Released Party any of the Claims released hereunder, then Releasor will pay to the Released Party, in addition to any all damages and compensation, direct or indirect, all attorney's fees incurred in defending or otherwise responding to the suit or Claims.

Releasor acknowledges that (i) Releasor has received the advice of legal counsel in connection with this General Release and Waiver of Claims, (ii) Releasor has read and understands that this is a General Release and Waiver of Claims, and (iii) Releasor it intends to be legally bound by the same.

Releasor acknowledges that Releasor has been given the opportunity to consider this Release for 21 days and has been encouraged and given the opportunity to consult with legal counsel of Releasor's choosing before signing it. Releasor understands that Releasor will have 7 days from the date on which Releasor executes this General Release and Waiver of Claims (as indicated by the date below his signature) to revoke Releasor's signature and agreement to be bound hereby by providing written notice of revocation to Libbey within the 7-day period. Releasor further understands and acknowledges this Release will become effective, if not sooner revoked, on the eighth day after the execution hereof by Releasor (the "**Effective Date**").

IN WITNESS WHEREOF, Releasor has executed and delivered this General Release and Waiver of Claims on behalf of the Releasing Parties as of the day and year set forth below.

Dated: _______, 20___.

RELEASOR:

____

Name: ______________________________

INDEMNITY AGREEMENT

This Indemnity Agreement ("Agreement") is made as of February 23, 2020, by and between Libbey Inc., a Delaware corporation ("Libbey"), and [NAME] ("Indemnitee").

RECITALS

A. Highly competent persons have become more reluctant to serve publicly-held corporations as directors, officers or in other capacities unless they are provided with adequate protection through insurance or adequate indemnification against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of the corporation.

B. The Board of Directors of Libbey (the "Board") has determined that, in order to attract and retain qualified individuals, Libbey will attempt to maintain on an ongoing basis, at its sole expense, liability insurance to protect persons serving Libbey and its subsidiaries from certain liabilities. Although the furnishing of such insurance has been a customary and widespread practice among United States-based corporations and other business enterprises, Libbey believes that, given current market conditions and trends, such insurance may be available to it in the future only at higher premiums and with more exclusions. At the same time, directors, officers and other persons in service to corporations or business enterprises are being increasingly subjected to expensive and time-consuming litigation relating to, among other things, matters that traditionally would have been brought only against the company or business enterprise itself. Libbey's By-laws require indemnification of Libbey's officers and directors. Indemnitee also may be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware ("DGCL"). The By-laws and the DGCL, expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between Libbey and members of the board of directors, officers and other persons with respect to indemnification.

C. The uncertainties relating to such insurance and to indemnification have increased the difficulty of attracting and retaining such persons.

D. The Board has determined that the increased difficulty in attracting and retaining such persons is detrimental to the best interests of Libbey's stockholders and that Libbey should act to assure such persons that there will be increased certainty of such protection in the future.

E. It is reasonable, prudent and necessary for Libbey contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve or continue to serve Libbey free from undue concern that they will not be so indemnified.

F. This Agreement is a supplement to and in furtherance of Libbey's By-laws and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

G. Indemnitee does not regard the protection available under Libbey's By-laws and insurance as adequate in the present circumstances and may not be willing to serve as an officer or director without adequate protection, and Libbey desires Indemnitee to serve in such capacity. Indemnitee is willing to serve, continue to serve and to take on additional service for or on behalf of Libbey on the condition that Indemnitee be so indemnified.

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, Libbey and Indemnitee do hereby agree as follows:

Section 1. Services to Libbey. Indemnitee agrees to serve as an officer and/or director of Libbey and, at Libbey's request, as a director and/or officer and/or fiduciary of another corporation, partnership, joint venture, trust employee benefit plan or other enterprise. Indemnitee may, at any time and for any reason, resign from such position (subject to any other contractual obligation or any obligation imposed by operation of law), in which event Libbey shall have no obligation under this Agreement to continue Indemnitee in such position. This Agreement shall not be deemed an employment contract between Libbey (or any of its subsidiaries or any Enterprise) and Indemnitee. Indemnitee specifically acknowledges that Indemnitee's employment with Libbey (or any of its subsidiaries or any Enterprise), if any, is at will, and the Indemnitee may be discharged at any time for any reason, with or without cause, except as may be otherwise provided in any written employment contract between Indemnitee and Libbey (or any of its subsidiaries or any Enterprise), other applicable formal severance policies duly adopted by the Board, or, with respect to service as a director or officer of Libbey, by Libbey's Certificate of Incorporation, Libbey's By-laws, and the General Corporation Law of the State of Delaware. The foregoing notwithstanding, this Agreement shall continue in force after Indemnitee has ceased to serve as an officer and/or director of Libbey.

Section 2. Definitions. As used in this Agreement:

(a) "Beneficial Owner" has the meaning given to such term in Rule 13d-3 under the Exchange Act; provided, however, that Beneficial Owner shall exclude any Person otherwise becoming a Beneficial Owner by reason of the stockholders of Libbey approving a merger of Libbey with another entity.

(b) A "Change in Control" will be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) Acquisition of Stock by Third Party. Any Person (as defined below) is or becomes the Beneficial Owner (as defined below), directly or indirectly, of securities of Libbey representing fifteen percent (15%) or more of the combined voting power of Libbey's then outstanding securities unless the change in relative Beneficial Ownership of Libbey's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors;

(ii) Change in Board of Directors. During any period of two consecutive years (not including any period before the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director (other than a director designated by a person who has entered into an agreement with Libbey to effect a transaction described in Sections 2(b)(i), 2(b)(iii) or 2(b)(iv)) whose election by the Board or nomination for election by Libbey's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a least a majority of the members of the Board;

(iii) Corporate Transactions. The effective date of a merger or consolidation of Libbey with any other entity, other than a merger or consolidation which would result in the voting securities of Libbey outstanding immediately before such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 51% of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the board of directors or other governing body of such surviving entity;

(iv) Liquidation. The approval by the stockholders of Libbey of a complete liquidation of Libbey or an agreement for the sale or disposition by Libbey of all or substantially all of Libbey's assets; and

(v) Other Events. There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange Act (as defined below), whether or not Libbey is then subject to such reporting requirement.

(c) "Corporate Status" describes the status of a person who is or was a director, trustee, partner, managing member, officer, employee, agent or fiduciary of Libbey or of any other corporation, limited liability company, partnership or joint venture, trust, employee benefit plan or other enterprise which such person is or was serving at the request of Libbey.

(d) "Disinterested Director" means a director of Libbey who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(e) "Enterprise" means Libbey and any other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise of which Indemnitee is or was serving at the request of Libbey as a director, officer, trustee, partner, managing member, employee, agent or fiduciary.

(f) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(g) "Expenses" shall include all reasonable attorneys' fees, retainers, court costs, transcript costs, fees and other costs of experts and other professionals, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, any federal, state, local or foreign taxes imposed on Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement, ERISA excise taxes and penalties and all other disbursements, obligations or expenses of the types customarily incurred in connection with, or as a result of, prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a deponent or witness in, or otherwise participating in, a Proceeding. Expenses also shall include (i) Expenses incurred in connection with any appeal resulting from any Proceeding, including without limitation the premium, security for, and other costs relating to any cost bond, supersedeas bond, or other appeal bond or its equivalent, and (ii) expenses incurred in connection with recovery under any directors' and officers' liability insurance policies maintained by Libbey, regardless of whether Indemnitee is ultimately determined to be entitled to such indemnification, advancement or Expenses or insurance recovery, as the case may be, and (iii) for purposes of Section 14(d) only, Expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement, by litigation or otherwise. The parties agree that for the purposes of any advancement of Expenses for which Indemnitee has made written demand to Libbey in accordance with this Agreement, all Expenses included in such demand that are certified by affidavit of Indemnitee's counsel as being reasonable in the good faith judgment of such counsel shall be presumed conclusively to be reasonable. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(h) "Independent Counsel" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five years has been, retained to represent: (i) Libbey or Indemnitee in any matter material to either such party (other than with respect to matters concerning the Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either Libbey or Indemnitee in an action to determine Indemnitee's rights under this Agreement. Libbey agrees to pay the reasonable fees and expenses of the Independent Counsel referred to above and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(i) "Person" shall have the meaning as set forth in Sections 13(d) and 14(d) of the Exchange Act; provided, however, that Person shall exclude (i) Libbey, (ii) any trustee or other fiduciary holding securities under an employee benefit plan of Libbey, and (iii) any corporation owned, directly or indirectly, by the stockholders of Libbey in substantially the same proportions as their ownership of stock of Libbey.

(j) The term "Proceeding" shall include any threatened, pending or completed action, suit, claim, counterclaim, cross claim, arbitration, mediation, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether brought in the right of Libbey or otherwise and whether of a civil, criminal, administrative legislative, regulatory or investigative (formal or informal) nature, including any appeal therefrom, in which Indemnitee was, is or will be involved as a party, potential party, non-party witness or otherwise by reason of Indemnitee's Corporate Status, by reason of any action taken by Indemnitee (or a failure to take action by Indemnitee) or of any action (or failure to act) on Indemnitee's part while acting pursuant to Indemnitee's Corporate Status, in each case whether or not serving in such capacity at the time any liability or expense is incurred for which indemnification, reimbursement, or advancement of expenses can be provided under this Agreement; except one initiated by a Indemnitee to enforce Indemnitee's rights under this Agreement.

(k) Reference to "other enterprise" shall include employee benefit plans; references to "fines" shall include any excise tax assessed with respect to any employee benefit plan; references to "serving at the request of Libbey" shall include any service as a director, officer, employee or agent of Libbey which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner Indemnitee reasonably believed to be in the best interests of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in manner "not opposed to the best interests of Libbey" as referred to in this Agreement.

Section 3. Indemnity in Third-Party Proceedings. Libbey shall indemnify Indemnitee in accordance with the provisions of this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of Libbey to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses, judgments, fines and amounts paid in settlement (including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses, judgments, fines and amounts paid in settlement) actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of Libbey and, in the case of a criminal proceeding had no reasonable cause to believe that Indemnitee's conduct was unlawful. The parties hereto intend that this Agreement shall provide to the fullest extent permitted by law for indemnification in excess of that expressly permitted by statute, including, without limitation, any indemnification provided by the Certificate of Incorporation, the Bylaws, vote of Libbey's stockholders or disinterested directors or applicable law.

Section 4. Indemnity in Proceedings by or in the Right of Libbey. Libbey shall indemnify Indemnitee in accordance with the provisions of this Section 4 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of Libbey to procure a judgment in its favor. Pursuant to this Section 4, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of Libbey. No indemnification for Expenses shall be made under this Section 4 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to Libbey, unless and only to the extent that the Delaware Court of Chancery or any court in which the Proceeding was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification.

Section 5. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement, to the fullest extent permitted by applicable law and to the extent that Indemnitee is a party to (or a participant in) and is successful, on the merits or otherwise, in any Proceeding or in defense of any claim, issue or matter therein, in whole or in part, Libbey shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee in connection therewith. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one or more but less than all claims, issues or matters in such Proceeding, Libbey shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with each successfully resolved claim, issue or matter. If the Indemnitee is not wholly successful in such Proceeding, Libbey also shall indemnify Indemnitee against all Expenses reasonably incurred in connection with a claim, issue or matter related to any claim, issue, or matter on which the Indemnitee was successful. For purposes of this Section 5 and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 6. Indemnification For Expenses of a Witness. Notwithstanding any other provision of this Agreement, to the fullest extent permitted by applicable law and to the extent that Indemnitee is, by reason of Indemnitee's Corporate Status, a witness, is or was made (or asked) to respond to discovery requests in any Proceeding, or otherwise asked to participate in any Proceeding to which Indemnitee is not a party, Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith.

Section 7. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by Libbey for some or a portion of Expenses, but not, however, for the total amount thereof, Libbey shall nevertheless indemnify Indemnitee for the portion thereof to which Indemnitee is entitled.

Section 8. Additional Indemnification.

(a) Notwithstanding any limitation in Sections 3, 4, or 5, if Indemnitee is a party to or is threatened to be made a party to any Proceeding (including a Proceeding by or in the right of Libbey to procure a judgment in its favor), Libbey shall indemnify Indemnitee, to the fullest extent permitted by applicable law, against all Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by Indemnitee in connection with the Proceeding.

(b) For purposes of Section 8(a), the meaning of the phrase "to the fullest extent permitted by applicable law" shall include, but not be limited to:

(i) to the fullest extent permitted by the provision of the DGCL that authorizes or contemplates additional indemnification by agreement, or the corresponding provision of any amendment to or replacement of the DGCL, and

(ii) to the fullest extent authorized or permitted by any amendments to or replacements of the DGCL adopted after the date of this Agreement that increase the extent to which a corporation may indemnify its officers and directors.

Section 9. Exclusions. Notwithstanding any provision in this Agreement, Libbey shall not be obligated under this Agreement to make any indemnity in connection with any claim made against Indemnitee:

(a) for which payment has actually been made to or on behalf of Indemnitee under any insurance policy or other indemnity provision, except with respect to any excess beyond the amount paid under any insurance policy or other indemnity provision; or

(b) for (i) an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of Libbey within the meaning of Section 16(b) of the Exchange Act (as defined in Section 2 hereof), or similar provisions of state statutory law or common law, or (ii) any reimbursement of Libbey by the Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by the Indemnitee from the sale of securities of Libbey, as required in each case under the Exchange Act (including any such reimbursements that arise from an accounting restatement of Libbey pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), or the payment to Libbey of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act) or (iii) any reimbursement of Libbey by Indemnitee of any compensation pursuant to any compensation recoupment or clawback policy adopted by the Board or the compensation committee of the Board, including but not limited to any such policy adopted to comply with stock exchange listing requirements implementing Section 10D of the Exchange Act; or

(c) except as provided in Section 14(d) of this Agreement, in connection with any Proceeding (or any part of any Proceeding) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against Libbey or its directors, officers, employees or other indemnitees, unless (i) the Board of Directors of Libbey authorized the Proceeding (or any part of any Proceeding) before its initiation, (ii) such payment arises in connection with any mandatory counterclaim or cross claim brought or raised by Indemnitee in any Proceeding (or any part of any Proceeding), or (iii) Libbey provides the indemnification, in its sole discretion, pursuant to the powers vested in Libbey under applicable law.

Section 10. Advances of Expenses. Notwithstanding any provision of this Agreement to the contrary, Libbey shall advance, to the extent not prohibited by law, the expenses incurred by or on behalf of Indemnitee in connection with any Proceeding (or any part of any Proceeding) not initiated by Indemnitee or any Proceeding initiated by Indemnitee with the prior approval of the Board as provided in Section 9(c), and such advancement shall be made within 30 days after the receipt by Libbey of a statement or statements requesting such advances from time to time, whether before or after final disposition of any Proceeding. Advances shall be unsecured and interest free and shall be made without regard to Indemnitee's ability to repay the expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement. Advances shall include any and all reasonable Expenses incurred pursuing an action to enforce this right of advancement, including Expenses incurred preparing and forwarding statements to Libbey to support the advances claimed. The Indemnitee shall qualify for advances upon the execution and delivery to Libbey of this Agreement, which shall constitute an undertaking providing that the Indemnitee undertakes to repay the advance (without interest) to the extent that it is ultimately determined that Indemnitee is not entitled to be indemnified by Libbey. This Section 10 shall not apply to any claim made by Indemnitee for which indemnity is excluded pursuant to Section 9.

Section 11. Procedure for Notification and Defense of Claim.

(a) To obtain indemnification under this Agreement, Indemnitee shall submit to Libbey a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification following the final disposition of such Proceeding. The omission to notify Libbey will not relieve Libbey from any liability that it may have to Indemnitee otherwise than under this Agreement, and any delay in so notifying Libbey shall not constitute a waiver by Indemnitee of any rights under this Agreement. The Secretary of Libbey shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that Indemnitee has requested indemnification.

(b) Libbey will be entitled to participate in the Proceeding at its own expense.

(c) Libbey shall not settle any Proceeding (in whole or in part) if such settlement would impose any Expense, judgment, liability, fine, penalty or limitation on Indemnitee in respect of which Indemnitee is not entitled to be indemnified hereunder without Indemnitee's prior written consent, which shall not be unreasonably withheld.

Section 12. Procedure Upon Application for Indemnification.

(a) Upon written request by Indemnitee for indemnification pursuant to the first sentence of Section 11(a), a determination, if required by applicable law, with respect to Indemnitee's entitlement thereto shall be made in the specific case: (i) if a Change in Control shall have occurred, by Independent Counsel in a written opinion to the Board of Directors, a copy of which shall be delivered to Indemnitee; or (ii) if a Change in Control shall not have occurred, (A) by a majority vote of the Disinterested Directors, even though less than a quorum of the Board, (B) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors, even though less than a quorum of the Board, (C) if there are no such Disinterested Directors or, if such Disinterested Directors so direct, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee or (D) if so directed by the Board, by the stockholders of Libbey; and, if it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within ten days after such determination. Indemnitee shall cooperate with the person, persons or entity making such determination with respect to Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information that is not privileged or otherwise protected from disclosure and that is reasonably available to Indemnitee and reasonably necessary to such determination. Any costs or expenses (including attorneys' fees and disbursements) incurred by Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by Libbey (irrespective of the determination as to Indemnitee's entitlement to indemnification) and Libbey hereby indemnifies and agrees to hold Indemnitee harmless therefrom. Libbey promptly will advise Indemnitee in writing with respect to any determination that Indemnitee is or is not entitled to indemnification, including a description of any reason or basis for which indemnification has been denied.

(b) In the event the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 12(a) hereof, the Independent Counsel shall be selected as provided in this Section 12(b). If a Change in Control shall not have occurred, the Independent Counsel shall be selected by the Board of Directors, and Libbey shall give written notice to Indemnitee advising Indemnitee of the identity of the Independent Counsel so selected. If a Change in Control shall have occurred, the Independent Counsel shall be selected by Indemnitee (unless Indemnitee shall request that such selection be made by the Board of Directors, in which event the preceding sentence shall apply), and Indemnitee shall give written notice to Libbey advising it of the identity of the Independent Counsel so selected. In either event, Indemnitee or Libbey, as the case may be, may, within 10 days after such written notice of selection shall have been given, deliver to Libbey or to Indemnitee, as the case may be, a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 2 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit. If, within 20 days after the later of submission by Indemnitee of a written request for indemnification pursuant to Section 11(a) hereof and the final disposition of the Proceeding, no Independent Counsel shall have been selected and not objected to, either Libbey or Indemnitee may petition a court of competent jurisdiction for resolution of any objection that shall have been made by Libbey or Indemnitee to the other's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by the Court or by such other person as the Court shall designate, and the person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 12(a) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 14(a) of this Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

(c) If Libbey disputes a portion of the amounts for which indemnification is requested, the undisputed portion shall be paid and only the disputed portion withheld pending resolution of any such dispute.

Section 13. Presumptions and Effect of Certain Proceedings.

(a) In making a determination with respect to entitlement to indemnification hereunder, the person or persons or entity making such determination shall, to the fullest extent not prohibited by law, presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 11(a) of this Agreement, and Libbey shall, to the fullest extent not prohibited by law, have the burden of proof to overcome that presumption in connection with the making by any person, persons or entity of any determination contrary to that presumption. Neither the failure of Libbey (including by its directors or independent legal counsel) to have made a determination before the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by Libbey (including by its directors or independent legal counsel) that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(b) Subject to Section 14(e), if the person, persons or entity empowered or selected under Section 12 of this Agreement to determine whether Indemnitee is entitled to indemnification shall not have made a determination within 60 days after receipt by Libbey of the request therefor, the requisite determination of entitlement to indemnification shall, to the fullest extent not prohibited by law, be deemed to have been made and Indemnitee shall be entitled to such indemnification, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law; provided, however, that such 60-day period may be extended for a reasonable time, not to exceed an additional 30 days, if the person, persons or entity making the determination with respect to entitlement to indemnification in good faith requires such additional time for obtaining or evaluating documentation and/or information relating thereto; and provided, further, that the foregoing provisions of this Section 13(b) shall not apply (i) if the determination of entitlement to indemnification is to be made by the stockholders pursuant to Section 12(a) of this Agreement and if (A) within 15 days after receipt by Libbey of the request for such determination the Board of Directors has resolved to submit such determination to the stockholders for their consideration at an annual meeting thereof to be held within 75 days after such receipt and such determination is made thereat, or (B) a special meeting of stockholders is called within 15 days after such receipt for the purpose of making such determination, such meeting is held for such purpose within 60 days after having been so called and such determination is made thereat, or (ii) if the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 12(a) of this Agreement.

(c) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner that Indemnitee reasonably believed to be in or not opposed to the best interests of Libbey or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

(d) For purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Enterprise, including financial statements, or on information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, or on the advice of legal counsel for the Enterprise or on information or records given or reports made to the Enterprise by an independent certified public accountant or by an appraiser or other expert selected with the reasonable care by the Enterprise. The provisions of this Section 13(d) shall not be deemed to be exclusive or to limit in any way the other circumstances in which the Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement.

(e) The knowledge and/or actions, or failure to act, of any director, trustee, partner, managing member, fiduciary, officer, agent or employee of the Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

Section 14. Remedies of Indemnitee.

(a) Subject to Section 14(e), in the event that (i) a determination is made pursuant to Section 12 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 10 of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 12(a) of this Agreement within 90 days after receipt by Libbey of the request for indemnification, (iv) payment of indemnification is not made pursuant to Section 5 or 6 or the last sentence of Section 12(a) of this Agreement within 10 days after receipt by Libbey of a written request therefor, (v) payment of indemnification pursuant to Section 3, 4 or 8 of this Agreement is not made within 10 days after a determination has been made that Indemnitee is entitled to indemnification, or (vi) in the event that Libbey or any other person takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or Proceeding designed to deny, or to recover from, the Indemnitee the benefits provided or intended to be provided to the Indemnitee hereunder, Indemnitee shall be entitled to an adjudication by a court of Indemnitee's entitlement to such indemnification or advancement of Expenses. Alternatively, Indemnitee, at Indemnitee's option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 14(a); provided, however, that the foregoing clause shall not apply in respect of a proceeding brought by Indemnitee to enforce Indemnitee's rights under Section 5 of this Agreement. Libbey shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 12(a) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 14 shall be conducted in all respects as a de novo trial, or arbitration, on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 14 Libbey shall have the burden of proving Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(c) If a determination shall have been made pursuant to Section 12(a) of this Agreement that Indemnitee is entitled to indemnification, Libbey shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 14, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) Libbey shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 14 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that Libbey is bound by all the provisions of this Agreement. It is the intent of Libbey that, to the fullest extent permitted by law, the Indemnitee not be required to incur legal fees or other Expenses associated with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement by litigation or otherwise because the cost and expense thereof would substantially detract from the benefits intended to be extended to the Indemnitee hereunder. Libbey shall, to the fullest extent permitted by law, indemnify Indemnitee against any and all Expenses and, if requested by Indemnitee, shall (within 10 days after receipt by Libbey of a written request therefore) advance, to the extent not prohibited by law, such expenses to Indemnitee, which are incurred by or on behalf of Indemnitee in connection with any action brought by Indemnitee for indemnification or advance of Expenses from Libbey under this Agreement or under any directors' and officers' liability insurance policies maintained by Libbey, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, advancement of Expenses or insurance recovery, as the case may be.

(e) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made before the final disposition of the Proceeding.

Section 15. Non-exclusivity; Survival of Rights; Insurance; Subrogation.

(a) The rights of indemnification and to receive advancement of Expenses as provided by this Agreement (i) shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, Libbey's Certificate of Incorporation, Libbey's By-laws, any agreement, a vote of stockholders or a resolution of directors, or otherwise and (ii) shall be interpreted independently of, and without reference to, any other such rights to which Indemnitee may at any time be entitled. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in Indemnitee’s Corporate Status before such amendment, alteration or repeal. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under Libbey's By-laws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) Libbey shall maintain an insurance policy or policies providing liability insurance for directors, officers, employees or agents of Libbey or of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise which such person serves at the request of Libbey for as long as Indemnitee provides services to Libbey and for a period not less than 6 years after Indemnitee's separation from service from Libbey. Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such director, officer, employee or agent under such policy or policies, Libbey shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. Libbey shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(c) In the event of any payment under this Agreement, Libbey shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable Libbey to bring suit to enforce such rights.

(d) Libbey shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable (or for which advancement is provided hereunder) hereunder if and to the extent that Indemnitee has otherwise actually received such payment under any insurance policy, contract, agreement or otherwise.

(e) Libbey's obligation to indemnify or advance Expenses hereunder to Indemnitee who is or was serving at the request of Libbey as a director, officer, trustee, partner, managing member, fiduciary, employee or agent of any other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise shall be reduced by any amount Indemnitee has actually received as indemnification or advancement of expenses from such other corporation, limited liability company, partnership, joint venture, trust, employee benefit plan or other enterprise.

Section 16. Duration of Agreement. This Agreement shall continue until and terminate upon the later of: (a) 10 years after the date that Indemnitee shall have ceased to serve as an officer and/or director of Libbey or (b) 1 year after the final termination of any Proceeding then pending in respect of which Indemnitee is granted rights of indemnification or advancement of Expenses hereunder and of any proceeding commenced by Indemnitee pursuant to Section 14 of this Agreement relating thereto. This Agreement shall be binding upon Libbey and its successors and assigns and shall inure to the benefit of Indemnitee and Indemnitee's heirs, executors and administrators and other legal representatives. Libbey shall require and shall cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of Libbey to, by written agreement, expressly assume and agree to perform this Agreement in the same manner and to the same extent that Libbey would be required to perform if no such succession had taken place..

Section 17. Severability. Nothing in this Agreement is intended to require or shall be construed as requiring Libbey to do or fail to do any act in violation of applicable law. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent permitted by law; (b) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 18. Enforcement.

(a) Libbey expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve as an officer and/or director of Libbey, and Libbey acknowledges that Indemnitee is relying upon this Agreement in serving as an officer and/or director of Libbey.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Certificate of Incorporation of Libbey, the By-laws of Libbey and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

Section 19. Modification and Waiver. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing by the parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver.

Section 20. Notice by Indemnitee. Indemnitee agrees promptly to notify Libbey in writing upon being served with any summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which may be subject to indemnification or advancement of Expenses covered hereunder. The failure of Indemnitee to so notify Libbey shall not relieve Libbey of any obligation which it may have to the Indemnitee under this Agreement or otherwise.

Section 21. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (a) delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, (b) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (c) mailed by reputable overnight courier and receipted for by the party to whom said notice or other communication shall have been directed or (d) sent by facsimile transmission, with receipt of oral confirmation that such transmission has been received:

If to Indemnitee, at the address indicated on the signature page of this Agreement, or such other address as Indemnitee shall provide to Libbey.

If to Libbey to: Libbey Inc.
Attn: General Counsel
300 Madison Avenue
Toledo, Ohio 43604

or to any other address as may have been furnished to Indemnitee by Libbey.

Section 22. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, Libbey, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (i) the relative benefits received by Libbey and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding; and/or (ii) the relative fault of Libbey (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transaction(s).

Section 23. Applicable Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 14(a) of this Agreement, Libbey and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Chancery Court of the State of Delaware (the "Delaware Court"), and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) appoint, to the extent such party is not otherwise subject to service of process in the State of Delaware, irrevocably Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808 as its agent in the State of Delaware as such party's agent for acceptance of legal process in connection with any such action or proceeding against such party with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court, and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

Section 24. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

Section 25. Miscellaneous. Use of the masculine pronoun shall be deemed to include usage of the feminine pronoun where appropriate. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect its construction.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

LIBBEY INC.	INDEMNITEE
By: ____________________	____________________
Its:	Address:

Appendix I to Form of Indemnity Agreement

Directors

William A. Foley
John C. Orr
Ginger M. Jones
Eileen A. Mallesch
Deborah G. Miller
Carol B. Moerdyk
Steve H. Nave

Executive Officers

Michael P. Bauer, Chief Executive Officer
Juan Amezquita, Senior Vice President, Chief Financial Officer
James C. Burmeister, Senior Vice President, Chief Operating Officer
Jennifer M. Jaffee, Senior Vice President, General Counsel & Secretary
Sarah J. Zibbel, Senior Vice President, Chief Human Resources Officer

SUBSIDIARIES OF REGISTRANT

Name of Company	State or Other Jurisdiction of Incorporation or Organization
Syracuse China Company	Delaware
World Tableware Inc.	Delaware
LGA4 Corp.	Delaware
LGA3 Corp.	Delaware
The Drummond Glass Company	Delaware
Libbey Canada Inc.	Ontario, Canada
Libbey Glass Inc.	Delaware
LGC Corp.	Delaware
Libbey.com LLC	Delaware
LGFS Inc.	Delaware
LGAC LLC	Delaware
LGAU Corp.	Delaware
Libbey Europe B.V.	Netherlands
B.V. Koninklijke Nederlandsche Glasfabriek Leerdam	Netherlands
Libbey Asia Limited	Hong Kong
Libbey Glassware (China) Co., Ltd.	China
Crisal - Cristalaria Automatica, S.A.	Portugal
Libbey International C.V.	Netherlands
Libbey Europe Finance Company B.V.	Netherlands
Libbey Mexico Holdings B.V.	Netherlands
Crisa Libbey Mexico S. de R.L. de C.V.	Mexico
Libbey Mexico, S. de R.L. de C.V.	Mexico
Crisa Libbey S.A. de C.V.	Mexico
Libbey Trading (Beijing) Co., Ltd.	China

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements 333-139089, 333-176086 and 333-216427 on Form S-8 of our reports dated February 27, 2020, relating to the financial statements of Libbey Inc., and the effectiveness of Libbey Inc.'s internal control over financial reporting, appearing in this Annual Report on Form 10-K of Libbey Inc.

/s/ DELOITTE & TOUCHE LLP

Detroit, Michigan
February 27, 2020

EXHIBIT 24

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned, being a director or officer, or both, of Libbey Inc., a Delaware corporation (the "Company"), hereby does constitute and appoint MICHAEL P. BAUER, JUAN AMEZQUITA and JENNIFER M. JAFFEE, with full power to each of them to act alone, as the true and lawful attorneys-in-fact and agents of the undersigned, with full power of substitution and resubstitution to each of said attorneys-in-fact, to execute, file or deliver any and all instruments and to do any and all acts and things which said attorneys-in-fact and agents, or any of them, deem advisable to enable the Company to comply with the Securities Exchange Act of 1934, as amended, and any requirements of the Securities and Exchange Commission in respect thereto, relating to annual reports on Form 10-K, including specifically, but without limitation of the general authority hereby granted, the power and authority to sign his or her name in the name and on behalf of the Company or as a director or officer, or both, of the Company, as indicated below opposite his or her signature to annual reports on Form 10-K for the year ending December 31, 2019, or any amendment or papers supplemental thereto; and each of the undersigned hereby does fully ratify and confirm all that said attorneys-in-fact and agents, or any of them, or the substitute of any of them, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has executed this Power of Attorney as of this 27th day of February, 2020.

/s/ Michael P. Bauer Michael P. Bauer	Chief Executive Officer
/s/ William A. Foley William A. Foley	Executive Chairman of the Board of Directors
/s/ John C. Orr John C. Orr	Lead Director
/s/ Carol B. Moerdyk Carol B. Moerdyk	Director
/s/ Deborah G. Miller Deborah G. Miller	Director
/s/ Ginger M. Jones Ginger M. Jones	Director
/s/ Eileen A. Mallesch Eileen A. Mallesch	Director
/s/ Steve H. Nave Steve H. Nave	Director

Certification of Chief Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Michael P. Bauer, certify that:

1. I have reviewed this annual report on Form 10-K of Libbey Inc.;
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 27, 2020

By: /s/ Michael P. Bauer
Michael P. Bauer
Chief Executive Officer

EXHIBIT 31.2

Certification of Chief Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Juan Amezquita, certify that:

1. I have reviewed this annual report on Form 10-K of Libbey Inc.;

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 27, 2020

By: /s/ Juan Amezquita
Juan Amezquita
Senior Vice President, Chief Financial Officer

EXHIBIT 32.1

Certification Pursuant to 18 U.S.C. Section 1350

Pursuant to 18 U.S.C. § 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officers of Libbey Inc. (the “Company”) hereby certify, to such officers' knowledge, that:

(i) the accompanying Annual Report on Form 10-K of the Company for the year ended December 31, 2019 (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 27, 2020

By: /s/ Michael P. Bauer
Michael P. Bauer
Chief Executive Officer

/s/ Juan Amezquita
Juan Amezquita
Senior Vice President, Chief Financial Officer