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, 2016

OR

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

Commission File Number 001-03970

HARSCO CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	**23-1483991**
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification number)
350 Poplar Church Road, Camp Hill, Pennsylvania	**17011**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code **717-763-7064**

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

Title of each class	Name of each exchange on which registered
Common stock, par value $1.25 per share Preferred stock purchase rights	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: NONE

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

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 o 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 o

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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

Large accelerated filer ☒	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

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

The aggregate market value of the Company's voting stock held by non-affiliates of the Company as of June 30, 2016 was $532,362,000

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date:

Class	Outstanding at January 31, 2017
Common stock, par value $1.25 per share	80,182,217

DOCUMENTS INCORPORATED BY REFERENCE

Selected portions of the 2017 Proxy Statement are incorporated by reference into Part III of this Report.

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PART I

Item 1. Business.

(a) General Development of Business

Harsco Corporation (the "Company") is a diversified, multinational provider of industrial services and engineered products serving global industries that are fundamental to worldwide economic growth and infrastructure development. The Company's operations consist of three reportable segments: Harsco Metals & Minerals, Harsco Industrial and Harsco Rail. The Company has locations in approximately 30 countries, including the U.S. The Company was incorporated in 1956.

The Company's operations previously included the Harsco Infrastructure Segment. In November 2013, the Company consummated the sale of the Company's Harsco Infrastructure Segment into a strategic venture with Clayton, Dubilier & Rice ("CD&R") as part of a transaction that combined the Harsco Infrastructure Segment with Brand Energy & Infrastructure Services, Inc., which CD&R simultaneously acquired. The Company contributed substantially all of the Company’s equity interests in, and the net assets of, the Harsco Infrastructure Segment to the strategic venture in exchange for approximately $300 million in cash, subject to working capital and other adjustments, and an approximate 29% equity interest in the Infrastructure strategic venture. The Company’s equity interest in the Infrastructure strategic venture was accounted for under the equity method of accounting as prescribed by generally accepted accounting principles in the U.S.

The Company's executive offices are located at 350 Poplar Church Road, Camp Hill, Pennsylvania 17011 and the Company's main telephone number is (717) 763-7064. The public may read and copy any material the Company files with the Securities and Exchange Commission ("SEC") at their Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The Company's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to such reports filed with or furnished to the SEC under Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on the SEC's Internet website at www.sec.gov and on the Company's Internet website at www.harsco.com as soon as reasonably practicable after such reports are electronically filed with the SEC. The information posted on the Company's website is not incorporated into the Company's SEC filings.

The Company's principal lines of business and related principal business drivers are as follows:

Principal Lines of Business	Principal Business Drivers
• Global expertise in providing on-site services for material logistics, product quality improvement and resource recovery from iron, steel and metals manufacturing; as well as value added environmental solutions for industrial co-products	• Global metals production and capacity utilization • Outsourcing of services by metals producers • Demand for high-value specialty steel and ferro alloys • Demand for environmental solutions for metals and minerals waste streams • Demand for industrial and infrastructure surface preparation and restoration • Demand for residential roofing shingles • Demand for road making materials
• Air-cooled heat exchangers	• Demand in the natural gas, natural gas processing and petrochemical markets
• Industrial grating and high-security fencing products	• Industrial plant and warehouse construction and expansion • Off-shore drilling and new rig construction • High-security fencing requirements to protect major facilities and infrastructure
• Heat transfer products	• Demand for commercial and institutional boilers and water heaters
• Railway track maintenance services and equipment	• Global railway track maintenance-of-way capital spending • Outsourcing of track maintenance and new track construction by railroads

The Company reports segment information using the "management approach," based on the way management organizes and reports the segments within the enterprise for making operating decisions and assessing performance. The Company's reportable segments are identified based upon differences in products, services and markets served. These segments and the types of products and services offered are more fully described in section (c) below.

In 2016, 2015 and 2014, sales in the U.S. contributed total revenues of $0.6 billion, $0.8 billion and $0.9 billion, equal to approximately 42%, 44% and 43% of total revenues, respectively. The Company's sales in euro-currency countries contributed total revenues of $0.3 billion, $0.3 billion and $0.4 billion in 2016, 2015 and 2014, equal to approximately 18%, 16% and 17% of total revenues, respectively. Sales in the U.K. contributed total revenues of $0.2 billion, $0.2 billion and $0.3 billion in 2016, 2015 and 2014, equal to approximately 11%, 13% and 12% of total revenues, respectively. There were no significant inter-segment revenues.

(b) Financial Information about Segments
Financial information concerning segments is included in Note 16, Information by Segment and Geographic Area, in Part II, Item 8, "Financial Statements and Supplementary Data," which information is incorporated herein by reference.

(c) Narrative Description of Business
(1) A narrative description of the businesses by reportable segment is as follows:

Harsco Metals & Minerals Segment—67% of consolidated revenues for 2016
The Harsco Metals & Minerals Segment is one of the world's largest providers of on-site services for material logistics, product quality improvement and resource recovery from iron, steel and metals manufacturing.

The Minerals business extracts high-value metallic content from stainless steel by-products and also specializes in the development of minerals technologies for commercial applications, including agriculture fertilizers. The Minerals business also produces industrial abrasives and roofing granules from power-plant utility coal slag at a number of locations throughout the U.S. Harsco Minerals' BLACK BEAUTY® abrasives are used for industrial surface preparation, such as rust removal and cleaning of bridges, ship hulls and various structures. Roofing granules are sold to residential roofing shingle manufacturers in the U.S., primarily for the replacement roofing market. This business is one of the largest U.S. producers of slag abrasives and residential roofing granules.

As part of the Harsco Metals & Minerals Segment's initiatives to develop new products and services, in particular environmental solutions, the Segment is involved with several initiatives and technology alliances focused on developing greater environmental sustainability through the recovery of resources from production by-products and waste streams.

The Harsco Metals & Minerals Segment operates in approximately 30 countries. In 2016 and 2015, this Segment's revenues were generated in the following regions:

	Percentage of Revenues	
Region	**2016**	**2015**
Western Europe	**40%**	41%
North America	**26%**	24%
Latin America (a)	**14%**	14%
Asia-Pacific	**12%**	12%
Middle East and Africa	**5%**	5%
Eastern Europe	**3%**	4%

(a) Including Mexico.

For 2016, 2015 and 2014, the Harsco Metals & Minerals Segment's percentage of the Company's consolidated revenues were 67%, 64% and 67%, respectively.

The Company has announced its intention to pursue strategic options for the separation of the Harsco Metals & Minerals Segment from the rest of the Company. There is no specific timetable related to this initiative and there can be no assurance that a sale, spin-off or any other transaction will take place.

Harsco Industrial Segment—17% of consolidated revenues for 2016
The Harsco Industrial Segment includes the Harsco Industrial Air-X-Changers, Harsco Industrial IKG and Harsco Industrial Patterson-Kelley businesses. Approximately 87% of this Segment's revenues originate in North America.

Harsco Industrial Air-X-Changers is a leading supplier of custom-engineered and manufactured air-cooled heat exchangers for the natural gas, natural gas processing and petrochemical industries in the U.S. Harsco Industrial Air-X-Changers' heat exchangers are the primary apparatus used to condition natural gas during recovery, compression and transportation from underground reserves through the major pipeline distribution channels. In January 2014, the Company acquired Hammco Corporation ("Hammco"), a U.S. manufacturer of high specification air-cooled heat exchangers for the natural gas and petrochemical processing markets.

Harsco Industrial IKG manufactures a varied line of industrial grating and high-security fencing products at several plants in the U.S. and international plants located in Mexico and China. These products include a full range of metal bar grating configurations, which are used mainly in industrial flooring, as well as safety and security applications in the energy, paper, chemical, refining and processing industries. Harsco Industrial IKG also produces GrateGuard™, a fencing solution for first-line physical security.

Harsco Industrial Patterson-Kelley is a leading manufacturer of energy-efficient heat transfer products such as boilers and water heaters for commercial and institutional applications.

For 2016, 2015 and 2014, this Segment's percentage of the Company's consolidated revenues were 17%, 21% and 20%, respectively.

Harsco Rail Segment—16% of consolidated revenues for 2016
The Harsco Rail Segment is a global provider of equipment, after-market parts and services for the maintenance, repair and construction of railway track. The Segment's equipment and services support private and government-owned railroads and urban transit systems worldwide. In March 2015, the Company acquired Protran Technology ("Protran"), a U.S. designer and producer of safety systems for transportation and industrial applications; and in April 2015, the Company acquired JK Rail Products, LLC ("JK Rail"), a provider of after-market parts for railroad track maintenance.

The Harsco Rail Segment's products are produced in three countries and products and services are provided worldwide. In 2016, 2015 and 2014, export product sales from the U.S. for the Harsco Rail Segment were $67.9 million, $67.1 million and $104.9 million, respectively.

For 2016, 2015 and 2014, the Harsco Rail Segment's percentage of the Company's consolidated revenues were 16%, 15% and 13%, respectively.

(1)(i) The products and services of the Company are generated through a number of product groups. These product groups are more fully discussed in Note 16, Information by Segment and Geographic Area, in Part II, Item 8, "Financial Statements and Supplementary Data." The product groups that contributed 10% or more as a percentage of consolidated revenues in any of the last three fiscal years are set forth in the following table:

	Percentage of Consolidated Revenues		
Product Group	**2016**	**2015**	**2014**
Outsourced, on-site services of material logistics, product quality improvement and resource recovery for iron, steel and metals manufacturing; as well as value added environmental solutions for industrial co-products	**67%**	64%	67%
Railway track maintenance services and equipment	**16%**	15%	13%
Air-cooled heat exchangers	**6%**	11%	11%

(1)(ii) New products and services are added from time to time; however, in 2016, 2015 and 2014 none required the investment of a material amount of the Company's assets.

(1)(iii) The manufacturing requirements of the Company's operations are such that no unusual sources of supply for raw materials are required. The raw materials used by the Company for its product manufacturing principally include steel and, to a lesser extent, aluminum, which are usually readily available. The profitability of the Company's manufactured products is affected by changing purchase prices of steel and other materials and commodities.

(1)(iv) While the Company has a number of trademarks, patents and patent applications, it does not consider that any material part of its business is dependent upon them.

(1)(v) The Company's Harsco Metals & Minerals Segment provides services which are usually subject to volume reductions at certain points of the year and the Company furnishes products within the Harsco Industrial Segment that are seasonal in nature. As a result, the Company's revenues and results of operations for the first quarter ending March 31 and the fourth quarter ending December 31 may be lower than the second and third quarters. Additionally, the Company has historically generated the majority of its cash flows in the second half of the year. This is a result of normally higher income during the latter part of the year.

(1)(vi) The practices of the Company relating to working capital are similar to those of other industrial service providers or manufacturers servicing both domestic and international industrial customers and commercial markets. These practices include the following:

- Standard accounts receivable payment terms of 30 to 60 days, with progress or advance payments required for certain long-lead-time or large orders. Payment terms are slightly longer in certain international markets.
- Standard accounts payable payment terms of 30 to 90 days.
- Inventories are maintained in sufficient quantities to meet forecasted demand. Due to the time required to manufacture certain railway track maintenance equipment to customer specifications, inventory levels of this business tend to increase for an extended period of time during the production phase and decline when the equipment is sold.

(1)(vii) In 2016, the Harsco Metals & Minerals Segment had one customer, and in 2015 and 2014 had two customers that each provided in excess of 10% of this Segment's revenues under multiple long-term contracts at several mill sites. The loss of any one of the contracts would not have a material adverse effect upon the Company's financial position or cash flows; however, it could have a significant effect on quarterly or annual results of operations. Additionally, a decline in economic conditions may further impact the ability of the Company's customers to meet their obligations to the Company on a timely basis and could result in bankruptcy or receivership filings by any of such customers. If customers are unable to meet their obligations on a timely basis, or if the Company is unable to collect amounts due from customers for any reason, it could adversely impact the realizability of receivables, the valuation of inventories and the valuation of long-lived assets across the Company's businesses. As part of its credit risk management practices, the Company closely monitors the credit standing and accounts receivable position of its customer base.

The Harsco Industrial Segment had no customers in 2016, two customers in 2015 and one customer 2014 that provided in excess of 10% of the Segment's revenues. The loss of any of these customers would not have a material adverse impact on the Company's financial positions or cash flows; however, it could have a material effect on quarterly or annual results of operations.

The Harsco Rail Segment had one customer in 2016, two customers in 2015 and one customer in 2014 that provided in excess of 10% of the Segment's revenues. The loss of any of these customers would not have a material adverse impact on the Company's financial positions or cash flows; however, it could have a material effect on quarterly or annual results of operations.

(1)(viii) At December 31, 2016, the Company's metals services contracts had estimated future revenues of $2.7 billion at expected production levels, compared with $3.2 billion at December 31, 2015. This provides the Company with a substantial base of long-term revenues. The decrease is primarily due to the timing of contract expiration and renewals; exited contracts associated with strategic actions from the Harsco Metals & Minerals Improvement Plan ("Project Orion") related to the focus on underperforming contracts; and the impact of foreign currency translation. Approximately 24% of these revenues are expected to be recognized by December 31, 2017; approximately 43% of these revenues are expected to be recognized between January 1, 2018 and December 31, 2020; approximately 14% of these revenues are expected to be recognized between January 1, 2021 and December 31, 2023; and the remaining revenues are expected to be recognized thereafter. There are no significant metals services contracts for which the estimated costs to complete the contract currently exceed the estimated revenue to be realized included in the below estimated future revenues, though certain contracts may have lower near-term operating margins due to continued reduced steel production and weaker commodity prices.

At December 31, 2016, the Company had an estimated order backlog of $54.4 million in its Harsco Industrial Segment, compared with $72.9 million at December 31, 2015. This decrease is primarily due to continued low oil prices impacting capital expenditures and overall spending by customers in the natural gas, natural gas processing and petrochemical industries. In addition, at December 31, 2016, the Harsco Rail Segment had an estimated order backlog of $273.0 million, compared with $292.1 million at December 31, 2015. This decrease is primarily due to shipments which were not replaced due to decreased demand, primarily in the U.S., during 2016. At December 31, 2016, $140.6 million or 43% of the Company's manufactured products order backlog is not expected to be filled in 2017. The remainder of this backlog is expected to be filled in 2018 and 2019. This is exclusive of long-term metals industry services contracts, roofing granules and industrial abrasives products, and minerals and metal recovery technologies services.

(1)(ix) At December 31, 2016, the Company had no material contracts that were subject to renegotiation of profits or termination at the election of the U.S. Government.

(1)(x) The Company's competitive environment is complex because of the wide diversity of services and products provided and the global breadth and depth of markets served. No single service provider or manufacturer competes with the Company with respect to all services provided or products manufactured and sold. In general, on a global basis, the Company's segments are among the market leaders in their respective sectors and compete with a range of global, regional and local businesses of varying size and scope.

Harsco Metals & Minerals Segment—This Segment provides outsourced on-site services to the global metals industries in approximately 30 countries, with the largest operations focused in the U.S., the U.K., France and Brazil. This Segment is one of the world's largest providers of these services. This Segment's key competitive factors are innovative resource recovery solutions, significant industry experience, technology, safety performance, service and value. This Segment competes principally with a number of privately-held businesses for services outsourced by customers. Additionally, due to the nature of this Segment's services, it encounters a certain degree of "competition" from customers' desire to perform similar services themselves instead of using an outsourced solution.

Harsco Industrial Segment—This Segment includes manufacturing businesses located principally in the U.S. with an increasing focus on international growth. Key competitive factors include quality, value, technology and energy-efficiency. Primary competitors are U.S.-based manufacturers of similar products. In January 2014, the Company acquired Hammco, a provider of process coolers for the natural gas, natural gas processing and petrochemical industries.

Harsco Rail Segment—This Segment manufactures and sells highly-engineered railway track maintenance equipment produced primarily in the U.S. for customers throughout the world. Additionally, this Segment provides railway track maintenance services principally in the U.S. and the U.K. This Segment's key competitive factors are quality, technology, customer service and value. Primary competitors for both products and services are privately-held global businesses as well as certain regional competitors. In March 2015, the Company acquired Protran, a U.S. designer and producer of safety systems for transportation and industrial applications; and in April 2015, the Company acquired JK Rail, a provider of after-market parts for railroad track maintenance.

(1)(xi) The Company's expense for research and development activities was $4.3 million, $4.5 million and $5.5 million in 2016, 2015 and 2014, respectively. This excludes technology development and engineering costs classified in cost of services and products sold or selling, general and administrative expense. For additional information regarding research and development activities, see Research and Development, in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

(1)(xii) The Company has become subject to, as have others, stringent air and water quality control legislation. In general, the Company has not experienced substantial difficulty complying with these environmental regulations, and does not anticipate making any material capital expenditures for environmental control facilities. While the Company expects that environmental regulations may expand, and that its expenditures for air and water quality control will continue, it cannot predict the effect on its business of such expanded regulations. For additional information regarding environmental matters see Note 12, Commitments and Contingencies, in Part II, Item 8, "Financial Statements and Supplementary Data."

(1)(xiii) At December 31, 2016, the Company had approximately 9,400 employees.

(d) Financial Information about Geographic Areas

Financial information concerning international and domestic operations is included in Note 16, Information by Segment and Geographic Area, in Part II, Item 8, "Financial Statements and Supplementary Data," which information is incorporated herein by reference. Export sales from the U.S. totaled $86.5 million, $80.8 million and $134.0 million in 2016, 2015 and 2014, respectively.

(e) Available Information

Information is provided in Part I, Item 1 (a), "General Development of Business."

Item 1A. Risk Factors.

Set forth below are risks and uncertainties that could materially and adversely affect Harsco Corporation's (the "Company's") results of operations, financial condition, liquidity and cash flows. The risks set forth below are not the only risks faced by the Company. The Company's business operations could also be affected by other factors not presently known to the Company or factors that the Company currently does not consider to be material.

Negative economic conditions may adversely impact demand for the Company's products and services, as well as the ability of the Company's customers to meet their obligations to the Company on a timely basis.

Negative economic conditions, including the tightening of credit in financial markets, can lead businesses to postpone spending, which may impact the Company's customers, causing them to cancel, decrease or delay their existing and future orders with the Company. In addition, economic conditions may further impact the ability of the Company's customers by either causing them to close locations serviced by the Harsco Metals & Minerals Segment, or cause their financial condition to deteriorate to a point where they are unable to meet their obligations to the Company on a timely basis. One or more of these events could adversely impact the Company's operating results and realizability of receivables.

Cyclical industry and economic conditions may adversely affect the Company's businesses.
The Company's businesses are subject to general economic slowdowns and cyclical conditions in each of the industries served. In particular:

- The Harsco Metals & Minerals Segment may be adversely impacted by continued slowdowns in steel mill production, excess production capacity, bankruptcy or receivership of steel producers and changes in outsourcing practices in the steel industry;
- The resource recovery technologies business of the Harsco Metals & Minerals Segment can also be adversely impacted by continued slowdowns in customer production or a reduction in the selling prices of its materials, which are market-based and vary based upon the current fair value of the components being sold. Therefore, the revenue generated from the sale of such recycled materials varies based upon the fair value of the commodity components being sold;
- The industrial abrasives and roofing granules business of the Harsco Metals & Minerals Segment may be adversely impacted by reduced home resales or economic conditions that slow the rate of residential roof replacement, or by slowdowns in the industrial and infrastructure refurbishment industries;
- Decreasing oil prices may adversely impact purchasing by energy sector customers in the Harsco Industrial Segment;
- The industrial grating products business of the Harsco Industrial Segment may be adversely impacted by slowdowns in non-residential construction and industrial production;
- The Harsco Rail Segment may be adversely impacted by developments in the railroad industry that lead to lower capital spending or reduced track maintenance spending; and
- Capital constraints and increased borrowing costs may also adversely impact the financial position and operations of the Company's customers across all business segments.

Furthermore, realization of deferred tax assets is ultimately dependent on generating sufficient income in future periods to ensure recovery of those assets. The cyclicality of the Company's end markets and adverse economic conditions may negatively impact the future income levels that are necessary for the utilization of deferred tax assets.

The seasonality of the Company's business may cause its quarterly results to fluctuate.
The Company has historically generated the majority of its cash flows provided by operations in the second half of the year. This is a result of normally higher income during the second half of the year, as the Company's business tends to follow seasonal patterns. If the Company is unable to successfully manage the cash flow and other effects of seasonality on the business, its results of operations may suffer.

Increased customer concentration and related credit and commercial risks may adversely impact the Company's results of operations, financial condition and cash flows.
For the year ended December 31, 2016, the Company’s top five customers in the Harsco Metals & Minerals Segment accounted for approximately 34% of revenues in that segment and 23% of the Company’s total revenues.

Certain of the several large customers in the Harsco Metals & Minerals Segment have significant accounts receivable balances. If a large customer were to experience financial difficulty, or file for bankruptcy or receivership protection it could adversely impact the Company's results of operations, cash flows and asset valuations.

Disputes with our largest customers, or customers with long-term contracts, could adversely affect the Company’s financial condition.
The Company routinely enters into multiple contracts with its customers, many of which can be long-term contracts. For example, the Company is currently party to multiple contracts in numerous countries with its largest customer, ArcelorMittal, which accounted for almost 10% of its total revenues for the year ended December 31, 2016. These contracts cover a variety of services and vary in contract length. From time to time, the Company may be negotiating the terms of current and potential future services to be rendered due to the scope and complexity of this relationship. Disagreements between the parties can arise as a result of the scope and nature of the relationship and these ongoing negotiations.

In addition, under long-term contracts, the Company may incur capital expenditures or other costs at the beginning of the contract that it expects to recoup through the life of the contract. Some of these contracts provide for advance payments to assist the Company in covering these costs and expenses. A dispute with a customer during the life of a long-term contract could impact the ability of the Company to receive these advance payments or otherwise recoup incurred costs and expenses.

The Company's global presence subjects it to a variety of risks arising from doing business internationally.
The Company operates in approximately 30 countries, generating 58% of its revenues outside of the U.S. (based on location of the facility generating the revenue) for the year ended December 31, 2016. In addition, as of December 31, 2016, approximately 75% of the Company’s property, plant and equipment are located outside of the U.S. The Company's global

footprint exposes it to a variety of risks that may adversely affect the Company's results of operations, financial condition, liquidity and cash flows. These include, but may not be limited to, the following:

- periodic economic downturns in the countries in which the Company does business;
- imposition of or increases in currency exchange controls and hard currency shortages;
- customs matters and changes in trade policy or tariff regulations;
- changes in regulatory requirements in the countries in which the Company does business;
- changes in tax regulations, higher tax rates in certain jurisdictions and potentially adverse tax consequences including restrictions on repatriating earnings, adverse tax withholding requirements and "double taxation;"
- longer payment cycles and difficulty in collecting accounts receivable;
- complexities in complying with a variety of U.S. and foreign government laws, controls and regulations;
- political, economic and social instability, civil and political unrest, terrorist actions and armed hostilities in the regions or countries in which the Company does business;
- inflation rates in the countries in which the Company does business;
- complying with complex labor laws in foreign jurisdictions;
- laws in various international jurisdictions that limit the right and ability of subsidiaries to pay dividends and remit earnings to affiliated companies unless specified conditions are met;
- sovereign risk related to international governments, including, but may not be limited to, governments stopping interest payments or repudiating their debt, nationalizing private businesses or altering foreign exchange regulations; and
- uncertainties arising from local business practices, cultural considerations and international political and trade tensions.

The Company has operations in several countries in the Middle East, including Bahrain, Egypt, Israel, Saudi Arabia and Oman, as well as India, some of which have experienced armed hostilities and civil unrest. Additionally, these countries are geographically close to other countries that may have a continued high risk of armed hostilities or civil unrest.

If the Company is unable to successfully manage the risks associated with its global business, the Company's results of operations, financial condition, liquidity and cash flows may be negatively impacted.

The Board of Directors (the "Board") has determined to explore strategic options for the separation of the Company’s Metals & Minerals Segment; however there can be no assurance that the Company will be successful in entering into or consummating a transaction or that any such transaction will yield additional value for stockholders.

During 2015, the Company announced that the Board had authorized a process to explore a range of strategic options for the separation of the Company’s Harsco Metals & Minerals Segment from the Harsco Industrial and Rail Segments. There can be no assurances that any such process will result in a sale, spin-off or any other transaction being entered into or consummated. The process may be time-consuming, distracting to management and disruptive to the Company's business operations, and if the Company is unable to effectively manage the process, the business, financial condition, and results of operations could be adversely affected. In addition, identifying and evaluating potential strategic options may result in the incurrence of additional expenses.

Any strategic decision will involve risks and uncertainties, and the Company cannot guarantee that any potential transaction or other strategic option, if identified, evaluated and consummated, will provide greater value to the Company's stockholders than that reflected in the current stock price. Any potential transaction would be dependent upon a number of factors that may be beyond the Company's control, including, among other factors, market conditions, industry trends and the interest of third parties in the Harsco Metals & Minerals Segment.

The Company has not set a specific timetable for completion of this process and does not intend to discuss or disclose developments with respect to the process unless and until such time as the Board has approved a definitive course of action or otherwise deems disclosure to be required or appropriate. As a consequence, perceived uncertainties related to the future of the Company’s Harsco Metals & Minerals Segment may result in the loss of potential business opportunities and may make it more difficult for the Company to attract and retain qualified personnel and business partners.

Due to the international nature of the Company's business, the Company could be adversely affected by violations of certain laws.

The U.S. Foreign Corrupt Practices Act (“FCPA”) and similar anti-bribery laws in non-U.S. jurisdictions generally prohibit companies and their intermediaries from making improper payments to officials for the purpose of obtaining or retaining business. The FCPA also imposes accounting standards and requirements on publicly traded U.S. corporations and their foreign affiliates, which, among other things, are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments, and to prevent the establishment of “off the books” slush funds from which improper payments can be made. The Company may not always prevent reckless or criminal acts by its employees or agents and may be exposed to liability due to pre-acquisition conduct of employees or agents of businesses or operations the Company may acquire. Violations of these laws, or allegations of such violations, could disrupt the Company’s operations, involve significant management distraction and have a material adverse effect on the Company’s results of operations, financial condition and cash flows. If the Company is found to be liable for violations of these laws (either due to its own acts, out of inadvertence or due to the acts or inadvertence of others), the Company could also be subject to severe criminal or civil penalties or other sanctions; disgorgement; further changes or enhancements to its procedures, policies and controls; personnel changes and other remedial actions.

Furthermore, the Company is subject to the export controls and economic embargo rules and regulations of the U.S., including the Export Administration Regulations and trade sanctions against embargoed countries, which are administered by the Office of Foreign Asset Control within the Department of Treasury, as well as other laws and regulations administered by the Department of Commerce. These regulations limit the Company’s ability to market, sell, distribute or otherwise transfer its products to prohibited countries or persons. Failure to comply with these rules and regulations may result in substantial civil and criminal penalties, including fines and disgorgement of profits, the imposition of a court-appointed monitor, the denial of export privileges and debarment from participation in U.S. Government contracts.

Exchange rate fluctuations may adversely impact the Company's business.
Fluctuations in foreign exchange rates between the U.S. dollar and the approximately 25 other currencies in which the Company currently conducts business may adversely impact the Company's results of operations in any given fiscal period. The Company’s principal foreign currency exposures are in the European Union ("EU"), the U.K. and Brazil. Given the structure of the Company's operations, an increase in the value of the U.S. dollar relative to the foreign currencies in which the Company earns its revenues generally has a negative impact on the translated amounts of the assets and liabilities, results of operations, and cash flows. The Company's foreign currency exposures increase the risk of volatility in its financial position, results of operations and cash flows. If currencies in the below regions change materially in relation to the U.S. dollar, the Company's financial position, results of operations, or cash flows may be materially affected.

Compared with the corresponding full-year period in 2015, the average value of major currencies changed as follows in relation to the U.S. dollar during the full-year 2016, impacting the Company's revenues and income:

- British pound sterling weakened by 12%
- euro weakened by less than 1%
- Brazilian real weakened by 4%

Compared with exchange rates at December 31, 2015, the value of major currencies at December 31, 2016 changed as follows:

- British pound sterling weakened by 16%
- euro weakened by 3%
- Brazilian real strengthened by 22%

To illustrate the effect of foreign exchange rate changes in certain key markets of the Company, in 2016 revenues would have been approximately 4% or $51 million higher and operating income would have been approximately 5% or $3 million lower if the average exchange rates for 2015 were utilized. In a similar comparison for 2015, revenues would have been approximately 10% or $170 million higher and operating income would have been approximately 2% or $2 million greater if the average exchange rates for 2014 were utilized.

Currency changes also result in assets and liabilities denominated in local currencies being translated into U.S. dollars at different amounts than at the prior period end. Generally, if the U.S. dollar weakens in relation to currencies in countries in which the Company does business, the translated amounts of the related assets, liabilities, and therefore stockholders' equity, would increase. Conversely, if the U.S. dollar strengthens in relation to currencies in countries in which the Company does business, the translated amounts of the related assets, liabilities, and therefore stockholders' equity, would decrease.

Although the Company engages in foreign currency exchange forward contracts and other hedging strategies to mitigate foreign exchange transactional risks, hedging strategies may not be successful or may fail to completely offset these risks. In addition, competitive conditions in the Company's manufacturing businesses may limit the Company's ability to increase product prices in the face of adverse currency movement. Sales of products manufactured in the U.S. for the domestic and export markets may be affected by the value of the U.S. dollar relative to other currencies. Any long-term strengthening of the U.S. dollar could depress demand for these products and reduce sales. Conversely, any long-term weakening of the U.S. dollar could improve demand for these products and increase sales.

Economic conditions and regulatory changes following the United Kingdom's referendum on withdrawal from the EU could impact on our business and results of operations.
In June 2016, a majority of voters in the U.K. approved a withdrawal from the EU in a national referendum (often referred to as Brexit). The referendum was advisory, and the terms of any withdrawal are subject to a negotiation period that could last at least two years after the government of the U.K. formally initiates a withdrawal process. Nevertheless, the referendum resulted in significant volatility in global stock markets and currency exchange rate fluctuations that resulted in the strengthening of the U.S. dollar against foreign currencies in which the Company conducts business. The referendum has created significant uncertainty about the future relationship between the U.K. and the EU, including with respect to the laws and regulations that will apply as the U.K. determines which EU laws to replace or replicate in the event of a withdrawal. The referendum has also given rise to calls for the governments of other EU member states to consider withdrawal.

Our business, particularly the Company's Harsco Metals & Minerals Segment, whose headquarters is in the U.K., could be adversely impacted by the likely exit of the U.K. from the EU. Adverse consequences such as deterioration in economic conditions and volatility in currency exchange rates could have a negative impact on our operations, financial condition and results of operations. In addition, incremental regulatory controls and regulations governing trade between the U.K. and the rest of the EU could have adverse consequences on the steel industry in the U.K. and/or the EU, and could negatively impact our operations and financial condition.

The Company may lose customers or be required to reduce prices as a result of competition.
The industries in which the Company operates are highly competitive:

- The Harsco Metals & Minerals Segment is sustained mainly through contract renewals and new contract signings. The Company may be unable to renew contracts at historical price levels or to obtain additional contracts at historical rates as a result of competition. If the Company is unable to renew its contracts at the historical rates or renewals are made at reduced prices, or if its customers terminate their contracts, revenue and results of operations may decline.
- The Harsco Industrial and Harsco Rail Segments compete with companies that manufacture similar products both internationally and domestically. Certain international competitors export their products into the U.S. and sell them at lower prices, which can be the result of lower labor costs and government subsidies for exports. In addition, certain competitors may from time to time sell their products below their cost of production in an attempt to increase their market share. Such practices may limit the prices the Company can charge for its products and services. Unfavorable foreign exchange rates can also adversely impact the Company's ability to match the prices charged by international competitors. If the Company is unable to match the prices charged by competitors, it may lose customers.

Restrictions imposed by the Company's credit facility and other financing arrangements may limit the Company's operating and financial flexibility.
The agreements governing the Company's outstanding financing arrangements impose a number of restrictions. Under the Company's Senior Secured Credit Facility, the Company must comply with certain financial covenants on a quarterly basis. The covenants also place limitations on dividends, acquisitions, investments in joint ventures, unrestricted subsidiaries, indebtedness and the imposition of liens on the Company's assets. In the event of a default, the Company's lenders and the counterparties to the Company's other financing arrangements could terminate their commitments to the Company and declare all amounts borrowed, together with accrued interests and fees, immediately due and payable. If this were to occur, the Company might not be able to pay these amounts, or the Company might be forced to seek an amendment to the Company's financing arrangements which could make the terms of these arrangements more onerous for the Company. In addition, this could also trigger an event of default under the cross-default provisions of the Company's other obligations. As a result, a default under one or more of the existing or future financing arrangements could have significant consequences for the Company.

The Company is exposed to counterparty risk in its derivative financial arrangements.
The Company uses derivative financial instruments, such as interest rate swaps and foreign currency exchange forward contracts, for a variety of purposes. The Company uses interest rate swaps in conjunction with certain debt issuances in order to secure either a fixed or floating interest rate. The Company uses foreign currency exchange forward contracts as part of a worldwide program to minimize foreign currency operating income and balance sheet exposure. In particular, the Company uses foreign currency exchange forward contracts to hedge commitments, such as foreign currency debt, firm purchase commitments and foreign currency cash flows for certain export sales transactions. The unsecured contracts for foreign currency exchange forward contracts outstanding at December 31, 2016 mature at various times through 2018 and are with major financial institutions. The Company may also enter into derivative contracts to hedge commodity exposures.

The failure of one or more counterparties to the Company's derivative financial instruments to fulfill their obligations could adversely affect the Company's results of operations, financial condition, liquidity and cash flows.

The Company’s variable rate indebtedness subjects it to interest rate risk, which could cause the Company's debt service obligations to increase significantly.

The Company's total debt at December 31, 2016 was $659.1 million. Of this amount, approximately 96% had variable rates of interest, and 4% had fixed rates of interest. The weighted average interest rate of total debt was approximately 5.9%. At debt levels as of December 31, 2016, a one percentage point increase in variable interest rates would increase interest expense by $5.5 million per year. If the Company is unable to successfully manage its exposure to variable interest rates, including through interest rates swaps that the Company has put into place, its debt service obligations may increase even though the amount borrowed remains the same, and in turn, its results of operations and financial condition may be negatively impacted.

Additionally, whenever the Company refinances fixed rate debt, the new interest rates may negatively impact the Company's results of operations. The interest rates associated with new fixed rate debt are impacted by several factors including, but not limited to, market conditions, term of the borrowings and the financial results and currency.

The Company is subject to taxes in numerous jurisdictions. Legislative, regulatory and legal developments involving income taxes could materially adversely affect the Company’s results of operations and cash flows and impact the Company’s ability to compete abroad.

The Company is subject to U.S. federal, U.S. state and international income, payroll, property, sales and use, value-added, fuel and other types of taxes in numerous jurisdictions. Significant judgment is required in determining the Company's worldwide provisions for income taxes. Changes in tax rates, enactments of new tax laws, revisions of tax regulations, and claims or litigation with taxing authorities could result in substantially higher taxes, and therefore, could have a significant adverse effect on the Company's results of operations, financial condition and liquidity.

Currently, a majority of the Company's revenue is generated from customers located outside the U.S., and a substantial portion of the Company's assets and employees are located internationally. U.S. income tax and withholding taxes have not been provided on undistributed earnings for certain non-U.S. subsidiaries, as such earnings are indefinitely reinvested in the operations of those subsidiaries.

The Executive Branch of the U.S. Government (the “Administration”) has expressed a desire to reform U.S. tax law to provide incentives for U.S. companies that expand the U.S. economy. These reforms include lowering the Corporate Tax Rate in an effort to stimulate the economy with significant GDP growth by creating new jobs in the U.S. The Administration has proposed significant changes on the taxation of imports and exports as well as the taxation of income earned outside the U.S. In addition, there would be a change from a worldwide based tax system to a territorial tax system. The Company continues to monitor legislation to be in position to fully understand the potential impact on the Company's operations and plan accordingly.

The Company's defined benefit net periodic pension cost ("NPPC") is directly affected by the equity and bond markets. A downward trend in those markets could adversely impact the Company's results of operations, financial condition and cash flows.

In addition to the economic issues that directly affect the Company's businesses, changes in the performance of equity and bond markets, particularly in the U.K. and the U.S., impact actuarial assumptions used in determining annual NPPC, pension liabilities and the valuation of the assets in the Company's defined benefit pension plans. Financial market deterioration would most likely have a negative impact on the Company's NPPC and the pension assets and liabilities. This could result in a decrease to stockholders' equity and an increase in the Company's statutory funding requirements.

In addition to the Company's defined benefit pension plans, the Company also participates in several multiemployer pension plans ("MEPPs") throughout the world. Within the U.S., the Pension Protection Act of 2006 may require additional funding for MEPPs that could cause the Company to be subject to higher cash contributions in the future. Additionally, market conditions and the number of participating employers remaining in each plan may affect the funded status of MEPPs and consequently, any Company withdrawal liability, if applicable.

A negative outcome on personal injury claims against the Company may adversely impact results of operations and financial condition.

The Company has been named as one of many defendants (approximately 90 or more in most cases) in legal actions alleging personal injury from exposure to airborne asbestos over the past several decades. In their suits, the plaintiffs have named as defendants, among others, many manufacturers, distributors and installers of numerous types of equipment or products that allegedly contained asbestos. The majority of the asbestos complaints pending against the Company have been filed in New York. Almost all of the New York complaints contain a standard claim for damages of $20 million or $25 million against the approximately 90 defendants, regardless of the individual plaintiff's alleged medical condition, and without specifically identifying any of the Company’s products as the source of plaintiff's asbestos exposure. If the Company is found to be liable in any of these actions and the liability exceeds the Company's insurance coverage, results of operations, cash flows and financial condition could be adversely affected.

The nature of the Company's products creates the possibility of significant product liability and warranty claims, which could harm its business.
The Company's customers use some of its products in potentially hazardous applications that can cause injury or loss of life and damage to property, equipment or the environment. In addition, the Company's products are integral to the production process for some end-users and any failure of the Company's products could result in a suspension of operations. Accidents may occur at a location where the Company's equipment and services have been or are being used. Investigations into such accidents, even if the Company and its products are ultimately found not to be the cause of such accidents, require the Company to expend significant time, effort and resources. The Company cannot be certain that its products will be completely free from defects. The Company may be named as a defendant in product liability or other lawsuits asserting potentially large claims. In addition, the Company cannot guarantee that insurance will be available or adequate to cover any or all liabilities incurred. The Company also may not be able to maintain insurance in the future at levels it believes are necessary and at rates it considers reasonable.

Higher than expected claims under insurance policies, under which the Company retains a portion of the risk, could adversely impact results of operations and cash flows.
The Company retains a significant portion of the risk for property, workers' compensation, U.K. employers' liability, automobile and general and product liability losses. Reserves have been recorded that reflect the undiscounted estimated liabilities for ultimate losses, including claims incurred but not reported. Inherent in these estimates are assumptions that are based on the Company's history of claims and losses, a detailed analysis of existing claims with respect to potential value, and current legal and legislative trends. If actual claims are higher than those projected by management, an increase to the Company's insurance reserves may be required and would be recorded as a charge to income in the period the need for the change was determined.

Increases or decreases in purchase prices (or selling prices) or availability of steel or other materials and commodities may affect the Company's profitability.
The profitability of the Company's manufactured products is affected by changing purchase prices of raw material, including steel and other materials and commodities. If raw material costs associated with the Company's manufactured products increase and the costs cannot be transferred to the Company's customers, results of operations would be adversely affected. Additionally, decreased availability of steel or other materials could affect the Company's ability to produce manufactured products in a timely manner. If the Company cannot obtain the necessary raw materials for its manufactured products, then revenues, results of operations and cash flows could be adversely affected.

Certain services performed by the Harsco Metals & Minerals Segment result in the recovery, processing and sale of recovered metals and minerals and other high-value metal by-products to its customers. The selling price of the by-products material is market-based and varies based upon the current fair value of its components. Therefore, the revenue amounts generated from the sale of such by-products material vary based upon the fair value of the commodity components being sold.

The success of the Company's strategic ventures depends on the satisfactory performance by strategic venture partners of their strategic venture obligations.
The Company enters into various strategic ventures as part of its strategic growth initiatives as well as to comply with local laws. Differences in opinions or views between strategic venture partners can result in delayed decision-making or failure to agree on material issues which could adversely affect the business and operations of the venture. From time to time in order to establish or preserve a relationship, or to better ensure venture success, the Company may accept risks or responsibilities for the strategic venture that are not necessarily proportionate with the reward it expects to receive. The success of these and other strategic ventures also depends, in large part, on the satisfactory performance by the Company's strategic venture partners of their strategic venture obligations, including their obligation to commit working capital, equity or credit support as required by the strategic venture and to support their indemnification and other contractual obligations.

If the Company's strategic venture partners fail to satisfactorily perform their strategic venture obligations as a result of financial or other difficulties, the strategic venture may be unable to adequately perform or deliver its contracted services. Under these circumstances, the Company may be required to make additional investments and provide additional services to ensure the adequate performance and delivery of the contracted services. These additional obligations could result in reduced profits or, in some cases, increased liabilities or significant losses for the Company with respect to the strategic venture. In addition, although the Company generally performs due diligence with regard to potential strategic partners or ventures, a failure by a strategic venture partner to comply with applicable laws, rules or regulations could negatively impact its business and, in the case of government contracts, could result in fines, penalties, suspension or even debarment. Unexpected strategic venture developments could have a material adverse effect on results of operations, financial condition and cash flows.

The Company is subject to various environmental laws, and the success of existing or future environmental claims against it could adversely impact the Company's results of operations and cash flows.
The Company's operations are subject to various federal, state, local and international laws, regulations and ordinances relating to the protection of health, safety and the environment, including those governing discharges to air and water, handling and disposal practices for solid and hazardous wastes, the remediation of contaminated sites and the maintenance of a safe workplace. These laws impose penalties, fines and other sanctions for non-compliance and liability for response costs, property damages and personal injury resulting from past and current spills, disposals or other releases of, or exposure to, hazardous materials. The Company could incur substantial costs as a result of non-compliance with or liability for remediation or other costs or damages under these laws. The Company may be subject to more stringent environmental laws in the future, and compliance with more stringent environmental requirements may require the Company to make material expenditures or subject it to liabilities that the Company currently does not anticipate.

The Company is currently involved in a number of environmental remediation investigations and cleanups and, along with other companies, has been identified as a "potentially responsible party" for certain waste disposal sites under the federal "Superfund" law. At several sites, the Company is currently conducting environmental remediation, and it is probable that the Company will agree to make payments toward funding certain other of these remediation activities. It also is possible that some of these matters will be decided unfavorably to the Company and that other sites requiring remediation will be identified. Each of these matters is subject to various uncertainties, and financial exposure is dependent upon such factors as:

- the continuing evolution of environmental laws and regulatory requirements;
- the availability and application of technology;
- the allocation of cost among potentially responsible parties;
- the years of remedial activity required; and
- the remediation methods selected.

The Company’s ongoing operations are subject to extensive laws, regulations, rules and ordinances relating to safety, health and environmental matters that impose significant costs and liabilities on the Company, and future laws and governmental standards could increase these costs and liabilities.
The Company is subject to a variety of international, federal, state and local laws and governmental regulations, rules and ordinances regulating the use of certain materials contained in its products and/or used in its manufacturing processes. Many of these laws and governmental standards provide for extensive obligations that require the Company to incur significant compliance costs, and impose substantial monetary fines and/or criminal sanctions for violations.

Furthermore, such laws and standards are subject to change and may become more stringent. Although it is not possible to predict changes in laws or other governmental standards, the development, proposal or adoption of more stringent laws or governmental standards may require the Company to change its manufacturing processes, for example by reducing or eliminating use of the regulated component or material in its manufacturing process. The Company may not be able to develop a new manufacturing process to comply with such legal and regulatory changes without investing significant time and resources, if at all. In addition, such legal and regulatory changes may also affect buying decisions by the users of the Company’s products that contain regulated materials or that involve the use of such materials in the manufacturing process. If applicable laws and governmental standards become more stringent, the Company’s results of operations, liquidity and financial condition could be materially adversely affected.

The Company maintains a workforce based upon current and anticipated workload. If the Company does not receive future contract awards or if these awards are delayed, significant cost may result that could have a material adverse effect on results of operations, financial condition, liquidity and cash flows.
The Company's estimates of future performance depend on, among other matters, whether and when the Company will receive certain new contract awards, including the extent to which the Company utilizes its workforce. The rate at which the Company utilizes its workforce is impacted by a variety of factors, including:

- the ability to manage attrition;
- the ability to forecast the need for services, which allows the Company to maintain an appropriately sized workforce;
- the ability to transition employees from completed projects to new projects or between segments; and
- the need to devote resources to non-revenue generating activities such as training or business development.

While the Company's estimates are based upon its good faith judgment, these estimates can be unreliable and may frequently change based on newly available information. In the case of large-scale domestic and international projects where timing is often uncertain, it is particularly difficult to predict whether and when the Company will receive a contract award. The uncertainty of contract award timing can present difficulties in matching the Company's workforce size with contract needs. If an expected contract award is delayed or not received, the Company could incur cost resulting from reductions in staff or redundancy of facilities or equipment that could have a material adverse effect on results of operations, financial condition, liquidity and cash flows.

Increased information technology security threats and more sophisticated computer crime pose a risk to the Company's systems, networks, products and services.

The Company relies upon information technology systems and networks in connection with a variety of business activities, some of which are managed by third parties. Additionally, the Company collects and stores data that is of a sensitive nature. The secure operation of these information technology systems and networks, and the processing and maintenance of this data is critical to the Company's business operations and strategy. Information technology security threats - from user error to attacks designed to gain unauthorized access to the Company's systems, networks and data - are increasing in frequency and sophistication. Attacks may range from random attempts to coordinated and targeted attacks, including sophisticated computer crime and advanced persistent threats. These threats pose a risk to the security of the Company's systems and networks and the confidentiality, availability and integrity of the Company's data. Should an attack on the Company's information technology systems and networks succeed, it could expose the Company and the Company's employees, customers, dealers and suppliers to misuse of information or systems, the compromising of confidential information, manipulation and destruction of data, production downtimes and operations disruptions. The occurrence of any of these events could adversely affect the Company's reputation, competitive position, business, results of operations and cash flows. In addition, such breaches in security could result in litigation, regulatory action, potential liability and the costs and operational consequences of implementing further data protection measures.

The Company's intellectual property portfolio may not prevent competitors from independently developing similar or duplicative products and services.

The Company's patents and other intellectual property may not prevent competitors from independently developing or selling similar or duplicative products and services, and there can be no assurance that the resources invested by the Company to protect the Company's intellectual property will be sufficient or that the Company's intellectual property portfolio will adequately deter misappropriation or improper use of the Company's technology. The Company could also face competition in some countries where the Company has not invested in an intellectual property portfolio. The Company may also face attempts to gain unauthorized access to the Company's information technology systems or products for the purpose of improperly acquiring trade secrets or confidential business information. The theft or unauthorized use or publication of the Company's trade secrets and other confidential business information as a result of such an incident could adversely affect the Company's competitive position and the value of the Company's investment in research and development. The Company may be unable to secure or retain ownership or rights to use data in certain software analytics or services offerings. In addition, the Company may be the target of aggressive and opportunistic enforcement of patents by third parties, including non-practicing entities. Regardless of the merit of such claims, responding to infringement claims can be expensive and time-consuming. If the Company is found to infringe any third-party rights, the Company could be required to pay substantial damages or could be enjoined from offering some of the Company's products and services. Also, there can be no assurances that the Company will be able to obtain or renew from third parties the licenses needed in the future, and there is no assurance that such licenses can be obtained on reasonable terms.

Union disputes or other labor matters could adversely affect the Company's operations and financial results.

A significant portion of the Company's employees are represented by labor unions in a number of countries under various collective bargaining agreements with varying durations and expiration dates. There can be no assurance that any current or future issues with the Company's employees will be resolved or that the Company will not encounter future strikes, work stoppages or other types of conflicts with labor unions or the Company's employees. The Company may not be able to satisfactorily renegotiate collective bargaining agreements in the U.S. and other countries when they expire. If the Company fails to renegotiate existing collective bargaining agreements, the Company could encounter strikes or work stoppages or other types of conflicts with labor unions. In addition, existing collective bargaining agreements may not prevent a strike or work stoppage at the Company's facilities in the future. The Company may also be subject to general country strikes or work stoppages unrelated to the Company's business or collective bargaining agreements. A work stoppage or other limitations on production at the Company's facilities for any reason could have an adverse effect on the Company's business, results of operations, financial condition and cash flows. In addition, many of the Company's customers and suppliers have unionized work forces. Strikes or work stoppages experienced by the Company's customers or suppliers could have an adverse effect on the Company's business, results of operations and financial condition.

If the Company cannot generate future cash flows at a level sufficient to recover the net book value of any reporting units, the Company may be required to record an impairment charge to earnings.
As a result of the Company's goodwill impairment testing, the Company may be required to record future impairment charges to the extent it cannot generate future cash flows at a level sufficient to recover the net book value of any of the Company's reporting units. The Company's estimates of fair value are based on assumptions about the future operating cash flows and growth rates of each reporting unit and discount rates applied to these cash flows. Based on the uncertainty of future growth rates, restructuring savings, and other assumptions used to estimate goodwill recoverability, future reductions in the Company's expected cash flows could cause a material non-cash goodwill impairment charge, which could have a material adverse effect on the Company's results of operations and financial condition.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Operations of Harsco Corporation and its subsidiaries are conducted at both owned and leased properties in domestic and international locations. The Company's executive offices are located at 350 Poplar Church Road, Camp Hill, Pennsylvania 17011 and are owned. The following table describes the location and principal use of the Company's more significant properties.

Location	Principal Products	Interest
Harsco Metals & Minerals Segment		
Taiyuan City, China	Minerals and Resource Recovery Technologies	Leased
Tangshan, China	Minerals and Resource Recovery Technologies	Leased
Rotherham, UK	Minerals and Resource Recovery Technologies	Owned
Drakesboro, Kentucky, U.S.	Roofing Granules/Abrasives	Owned
Sarver, Pennsylvania, U.S.	Minerals and Resource Recovery Technologies	Owned
Harsco Rail Segment		
Columbia, South Carolina, U.S.	Rail Maintenance Equipment	Owned
Ludington, Michigan, U.S.	Rail Maintenance Equipment	Owned
Harsco Industrial Segment		
Broken Arrow, Oklahoma, U.S.	Heat Exchangers	Leased
East Stroudsburg, Pennsylvania, U.S.	Heat Transfer Products	Owned
Channelview, Texas, U.S.	Industrial Grating Products	Owned
Garrett, Indiana, U.S.	Industrial Grating Products	Leased
Leeds, Alabama, U.S.	Industrial Grating Products	Owned
Queretaro, Mexico	Industrial Grating Products	Owned

The Harsco Metals business, which is part of the Harsco Metals & Minerals Segment, principally operates on customer-owned sites and has administrative offices in Camp Hill, Pennsylvania, and Leatherhead, U.K. The above table includes the principal properties owned or leased by the Company. The Company also operates from a number of other smaller plants, warehouses and offices in addition to the above. The Company considers all of its properties at which operations are currently performed to be in satisfactory condition and suitable for their intended use.

Item 3. Legal Proceedings.

Information regarding legal proceedings is included in Note 12, in Part II, Item 8, "Financial Statements and Supplementary Data."

Item 4. Mine Safety Disclosures.

Not applicable.

Supplementary Item. Executive Officers of the Registrant

Set forth below, at February 24, 2017, are the executive officers of the Company and certain information with respect to each of them. There are no family relationships among any of the executive officers.

Name	Age	Position with the Company
Executive Officers:		
F. Nicholas Grasberger, III	53	President and Chief Executive Officer
Peter F. Minan	55	Senior Vice President and Chief Financial Officer
Scott H. Gerson	46	Senior Vice President and Group President - Harsco Industrial
Jeswant Gill	54	Senior Vice President and Group President - Harsco Rail
Russell C. Hochman	52	Senior Vice President and General Counsel, Chief Compliance Officer & Corporate Secretary
Tracey L. McKenzie	49	Senior Vice President and Chief Human Resources Officer

F. Nicholas Grasberger, III - President and Chief Executive Officer since August 1, 2014, and became a member of the Board of Directors on April 29, 2014. Served as Senior Vice President and Chief Financial Officer from April 2013 to November 2014, and President and Chief Operating Officer from April 2014 to August 2014. Prior to joining the Company, Mr. Grasberger was Managing Director of Fenner Plc’s Precision Polymer division from March 2011 to April 2013. From April 2009 to November 2009 he served as Executive Vice President and Chief Executive Officer of Armstrong Building Products. From January 2005 to March 2009 he served as Senior Vice President and Chief Financial Officer of Armstrong World Industries, Inc. Prior to his employment with Armstrong, Mr. Grasberger served as Vice President and Chief Financial Officer of Kennametal Inc. and before that as Corporate Treasurer and Director of the corporate planning process at H.J. Heinz Company. He started his career with USX Corporation.

Peter F. Minan - Senior Vice President and Chief Financial Officer since November 11, 2014. Mr. Minan has an extensive background in global financial management acquired through a nearly 30-year career with KPMG from 1983 to 2012. He became a partner at KPMG in 1993 and served as global lead partner for several multi-national Fortune 500 industrial and consumer audits. His roles included National Managing Partner, U.S. Audit practice, and Partner in Charge, Washington/Baltimore Audit practice. His most recent role was with Computer Sciences Corporation, where he served as Vice President of Enterprise Risk Management and Internal Audit from 2012 to 2013.

Scott H. Gerson - Senior Vice President and Group President–Harsco Industrial since January 25, 2011. Served as Vice President and Group President–Harsco Industrial and Chief Information Officer from July 2010 to January 2011. Served as Chief Information Officer from April 2005 to July 2010. Prior to joining the Company in April 2005, Mr. Gerson was with Kulicke & Soffa Industries, Inc., where he served as IT director of their worldwide application services. He has also served in IT management capacities with Compaq Computers and TRW Inc.

Jeswant Gill - Senior Vice President and Group President - Harsco Rail since November 2016. Prior to joining the Company Mr. Gill served as Senior Executive/Managing Director, Global Solutions of The Arcadia Group International, LLC from October 2015 to November 2016. From June 2014 to September 2015 Mr. Gill served as Vice President and Executive Vice President, Industrial Segment of Kennametal, Inc. From January 2008 to May 2014 Mr. Gill worked for Ingersoll Rand Company Limited, acting as Vice President of Global Services, Industrial Technologies from January 2011 to May 2014, and as President of Security Technologies, Asia Pacific from January 2008 until December 2010. Prior to his employment with Ingersoll Rand Company Limited, Mr. Gill worked for Invensys, Johnson Controls Inc. and Schlumberger. Mr. Gill holds a B.S. in engineering physics and an MBA, both from Queen's University in Ontario, Canada.

Russell C. Hochman - Senior Vice President and General Counsel, Chief Compliance Officer and Corporate Secretary. Prior to joining the Company in 2013 he served in senior legal roles with Pitney Bowes Inc. and leading law firms based in New York. He holds a J.D. from Albany Law School of Union University and a B.A. from Cornell University.

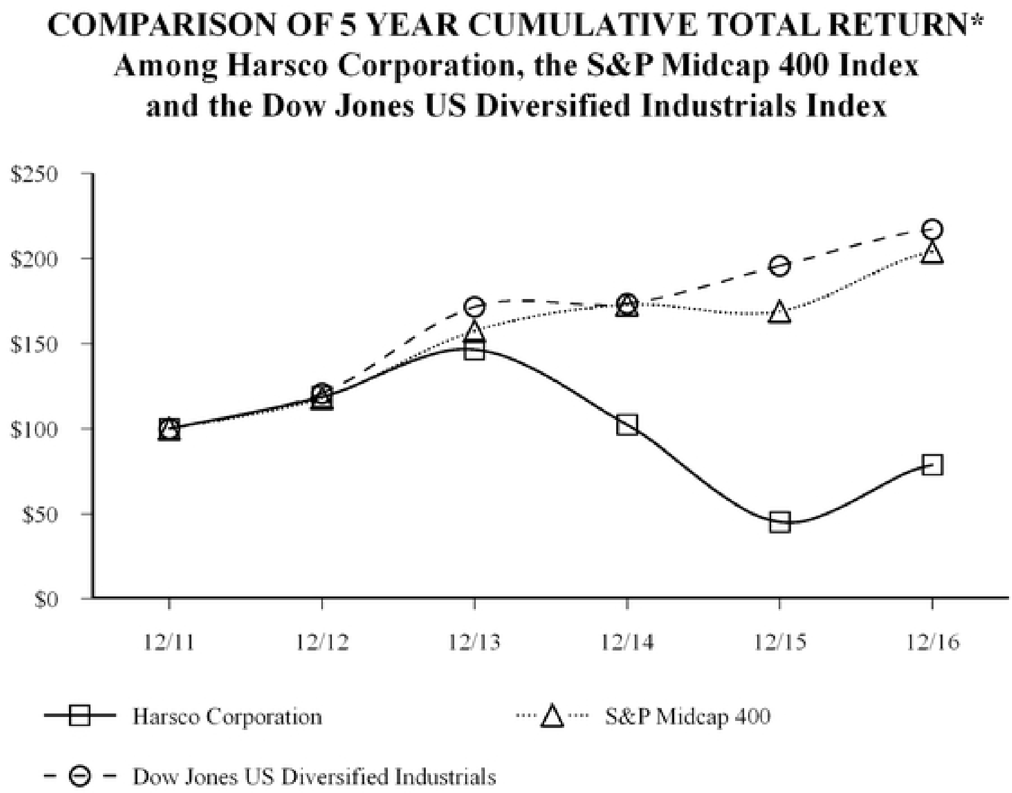
Tracey L. McKenzie - Senior Vice President and Chief Human Resources Officer. Prior to joining Harsco in September 2014, Ms. McKenzie served as Global HR Vice President for JLG Industries, a leader in the manufacturing sector for advanced aerial lift systems. Ms. McKenzie previously held executive level HR positions in her native Australia, and worked at Pacific Scientific Aerospace (a division of Danaher). She moved to the U.S. in 2003, and holds an MBA from the University of New England and a bachelor's in business administration from Royal Melbourne Institute of Technology (RMIT).

PART II

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

Harsco Corporation common stock is listed on the New York Stock Exchange. At December 31, 2016, there were 80,174,963 shares outstanding. In 2016, the Company's common stock traded in a range of $3.55 to $15.25 and closed at $13.60 at year-end. At December 31, 2016, there were approximately 19,100 stockholders. The Company's Senior Secured Credit Facilities contain limitations on the payment of dividends. For additional information regarding Harsco Corporation's common stock market price and dividends declared, see Dividend Action, in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and Common Stock Price and Dividend Information, in Part II, Item 8, "Financial Statements and Supplementary Data." For additional information regarding the Company's equity compensation plans see Note 14, Stock-Based Compensation, in Part II, Item 8, "Financial Statements and Supplementary Data," and Part III, Item 11, "Executive Compensation." For additional information regarding the Company's limitations on the payment of dividends, see Liquidity and Capital Resources, in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 8, Debt and Credit Agreements, in Part II, Item 8, "Financial Statements and Supplementary Data."

Stock Performance Graph



*$100 invested on 12/31/11 in stock or index, including reinvestment of dividends. Fiscal year ending December31.

	12/11	12/12	12/13	12/14	12/15	12/16
Harsco Corporation	**100.00**	**118.75**	**146.42**	**102.21**	**45.21**	**78.67**
S&P Midcap 400	**100.00**	**117.88**	**157.37**	**172.74**	**168.98**	**204.03**
Dow Jones U.S. Diversified Industrials	**100.00**	**120.81**	**171.71**	**173.51**	**195.79**	**217.24**

Item 6. Selected Financial Data.

Five-Year Statistical Summary

(In thousands, except per share, employee information and percentages)	2016	2015	2014	2013 (a)	2012
Statement of operations information					
Revenues from continuing operations	**$ 1,451,223**	$ 1,723,092	$ 2,066,288	$ 2,895,970	$ 3,046,018
Amounts attributable to Harsco Corporation common stockholders					
Income (loss) from continuing operations	**$ (86,336)**	$ 7,168	$ (22,281)	$ (231,356)	$ (258,889)
Income (loss) from discontinued operations	**669**	(980)	110	(1,492)	(919)
Net income (loss)	**(85,667)**	6,188	(22,171)	(232,848)	(259,808)
Financial position and cash flow information					
Working capital	**$ 149,736**	$ 158,399	$ 117,919	$ 229,599	$ 431,594
Total assets (b)	**1,581,386**	2,061,197	2,266,946	2,443,208	2,975,231
Long-term debt (b)	**629,239**	845,621	827,428	779,849	953,121
Total debt (b)	**659,072**	900,934	869,364	807,595	964,959
Depreciation and amortization	**141,486**	156,475	176,326	237,041	272,117
Capital expenditures	**(69,340)**	(123,552)	(208,859)	(245,551)	(264,738)
Cash provided by operating activities	**159,785**	121,507	226,727	187,659	198,594
Cash provided (used) by investing activities	**122,887**	(130,373)	(229,561)	63,281	(218,983)
Cash provided (used) by financing activities	**(292,273)**	22,454	(21,794)	(248,664)	(4,546)
Ratios					
Return on average equity (c)	**29.5%**	2.3%	(4.0)%	(30.0)%	(22.2)%
Current ratio (d)	**1.3:1**	1.3:1	1.2:1	1.4:1	1.7:1
Per share information attributable to Harsco Corporation common stockholders					
Basic—Income (loss) from continuing operations	**$ (1.07)**	$ 0.09	$ (0.28)	$ (2.86)	$ (3.21)
Income (loss) from discontinued operations	**0.01**	(0.01)	—	(0.02)	(0.01)
Net income (loss)	**$ (1.07)** (e)	$ 0.08	$ (0.27) (e)	$ (2.88)	$ (3.22)
Diluted—Income (loss) from continuing operations	**$ (1.07)**	$ 0.09	$ (0.28)	$ (2.86)	$ (3.21)
Income (loss) from discontinued operations	**0.01**	(0.01)	—	(0.02)	(0.01)
Net income (loss)	**$ (1.07)** (e)	$ 0.08	$ (0.27) (e)	$ (2.88)	$ (3.22)
Other information					
Book value per share (f)	**$ 1.72**	$ 3.88	$ 4.36	$ 7.41	$ 10.64
Cash dividends declared per share	**—**	0.666	0.820	0.820	0.820
Diluted weighted-average number of shares outstanding	**80,333**	80,365	80,884	80,755	80,632
Number of employees	**9,400**	10,800	12,200	12,300	18,500

(a) Includes impacts of the Infrastructure Transaction consummated on November 26, 2013.
(b) On January 1, 2016, the Company adopted changes issued by the Financial Accounting Standards Board related to simplifying the presentation of debt issuance costs. The changes required that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct reduction from the carrying amount of that debt liability. The Company reclassified debt issuance costs in the amount of $10.1 million, $2.3 million, $3.3 million and $4.3 million at December 31, 2015, 2014, 2013 and 2012, respectively.
(c) Return on average equity is calculated by dividing income (loss) from continuing operations by average Harsco Corporation stockholders' equity throughout the year.
(d) Current ratio is calculated by dividing total current assets by total current liabilities.
(e) Does not total due to rounding.
(f) Book value per share is calculated by dividing total equity by shares outstanding.

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

The following discussion should be read in conjunction with the Consolidated Financial Statements of Harsco Corporation (the "Company") provided under Part II, Item 8, "Financial Statements and Supplementary Data," of this Annual Report on Form 10-K.

Amounts included in this Item 7 of this Annual Report on Form 10-K are rounded in millions and all percentages are calculated based on actual amounts. As a result, minor differences may exist due to rounding.

Forward-Looking Statements

The nature of the Company's business and the many countries in which it operates subject it to changing economic, competitive, regulatory and technological conditions, risks and uncertainties. In accordance with the "safe harbor" provisions of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, the Company provides the following cautionary remarks regarding important factors that, among others, could cause future results to differ materially from the results contemplated by forward-looking statements, including the expectations and assumptions expressed or implied herein. Forward-looking statements contained herein could include, among other things, statements about management's confidence in and strategies for performance; expectations for new and existing products, technologies and opportunities; and expectations regarding growth, sales, cash flows, and earnings. Forward-looking statements can be identified by the use of such terms as "may," "could," "expect," "anticipate," "intend," "believe," "likely," "estimate," "plan" or other comparable terms.

Factors that could cause actual results to differ, perhaps materially, from those implied by forward-looking statements include, but are not limited to: (1) changes in the worldwide business environment in which the Company operates, including general economic conditions; (2) changes in currency exchange rates, interest rates, commodity and fuel costs and capital costs;(3) changes in the performance of equity and bond markets that could affect, among other things, the valuation of the assets in the Company's pension plans and the accounting for pension assets, liabilities and expenses; (4) changes in governmental laws and regulations, including environmental, occupational health and safety, tax and import tariff standards; (5) market and competitive changes, including pricing pressures, market demand and acceptance for new products, services and technologies; (6) the Company's inability or failure to protect its intellectual property rights from infringement in one or more of the many countries in which the Company operates; (7) failure to effectively prevent, detect or recover from breaches in the Company's cybersecurity infrastructure; (8) unforeseen business disruptions in one or more of the many countries in which the Company operates due to political instability, civil disobedience, armed hostilities, public health issues or other calamities; (9) disruptions associated with labor disputes and increased operating costs associated with union organization; (10) the seasonal nature of the Company's business; (11) the Company's ability to successfully enter into new contracts and complete new acquisitions or strategic ventures in the time-frame contemplated, or at all; (12) the integration of the Company's strategic acquisitions; (13) the amount and timing of repurchases of the Company's common stock, if any; (14) the prolonged recovery in global financial and credit markets and economic conditions generally, which could result in the Company's customers curtailing development projects, construction, production and capital expenditures, which, in turn, could reduce the demand for the Company's products and services and, accordingly, the Company's revenues, margins and profitability; (15) the outcome of any disputes with customers, contractors and subcontractors; (16) the financial condition of the Company's customers, including the ability of customers (especially those that may be highly leveraged and those with inadequate liquidity) to maintain their credit availability; (17) the Company's ability to successfully implement and receive the expected benefits of cost-reduction and restructuring initiatives, including the achievement of expected cost savings in the expected time frame; (18) implementation of environmental remediation matters; (19) risk and uncertainty associated with intangible assets; (20) the impact of a transaction, if any, resulting from the Company's determination to explore strategic options for the separation of the Harsco Metals & Minerals Segment; and (21) other risk factors listed from time to time in the Company's SEC reports. A further discussion of these, along with other potential risk factors, can be found in Part I, Item 1A, "Risk Factors," of this Annual Report on Form 10-K. The Company cautions that these factors may not be exhaustive and that many of these factors are beyond the Company's ability to control or predict. Accordingly, forward-looking statements should not be relied upon as a prediction of actual results. The Company undertakes no duty to update forward-looking statements except as may be required by law.

Executive Overview

In November 2016, the Company entered into a new senior secured credit facility (the “Senior Secured Credit Facility”), consisting of a $400 million Revolving Credit Facility and a $550 million term loan B facility (the "Term Loan Facility"). Upon closing of the Senior Secured Credit Facility, the Company amended and extended the existing Revolving Credit Facility, repaid the existing term loan A facility and redeemed, satisfied and discharged the 5.75% Senior Notes due 2018 (the “Notes”) in accordance with the indenture governing the Notes. As a result, a charge of $35.3 million was recorded during the fourth quarter of 2016 consisting principally of the cost of early extinguishment of the Notes and the write-off of unamortized deferred financing costs associated with the Company’s existing Financing Agreements and the Notes. See Note 8, Debt and Credit Agreements, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.

In September 2016, the Company sold its remaining approximate 26% equity interest in Brand Energy & Infrastructure Services ("Brand"). In exchange for the Company's interest, (i) the Company received $145 million in cash, net, and (ii) the requirement for the Company to fund certain obligations to Brand through 2018 were satisfied, the present value of which equaled $20.6 million. As a result of the sale, the Company’s obligation to make quarterly payments related to the unit adjustment liability under the terms of a limited partnership agreement that governed the operation of the strategic venture terminated. The Company recognized a loss on the sale of its equity interest in Brand in the amount of $43.5 million, which was recognized in Change in fair value to unit adjustment liability and loss on dilution and sale of equity method investment on the Consolidated Statement of Operations. See Note 5, Equity Method Investments, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.

Although steel markets have demonstrated some improvement, the Harsco Metals & Minerals Segment continued to be negatively impacted by lower customer steel production, weak commodity prices and site exits during 2016. These impacts have been offset by the savings and benefits achieved as part of the Harsco Metals & Minerals Segment's Improvement Plan ("Project Orion") including lower compensation costs and the impact of exited underperforming contracts. During the fourth quarter of 2015, Project Orion was expanded with additional targeted workforce and operational savings of $20 million to $25 million. The majority of these benefits were realized during 2016. See Note 19, Restructuring Programs, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information. Also, results for 2015 included costs incurred by the Harsco Metals & Minerals Segment related to a steel mill customer liquidation, salt cake disposal costs and charges associated with a subcontractor settlement which decreased operating income by $24.9 million. The Company remains focused on achieving additional cost reductions and operational improvements to enhance returns for the Harsco Metals & Minerals Segment.

The Harsco Rail Segment recorded estimated forward loss provision of $45.1 million during 2016 related to the Company's contracts with the federal railway system of Switzerland ("SBB"). The estimated forward loss provision resulted from increased vendor costs, ongoing discussions with SBB, and increased estimates for commissioning, certification and testing costs, as well as expected settlements with SBB. See Note 4, Accounts Receivable and Inventories, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information. Also, results for 2015 included a $10.9 million foreign exchange gain that was not repeated in 2016. Additionally, the Harsco Rail Segment continues to be impacted by continued weakness in the North American market.

While energy markets have demonstrated some fundamental improvement, the Harsco Industrial Segment’s air-cooled heat exchangers and industrial grating businesses will lag the market given the lead time for capital expenditures to formalize into new projects for customers in the upstream, midstream, and downstream oil and gas markets served by the Company to be constrained. Accordingly, these factors are expected to impact revenue and operating income during the first half of 2017 in the Harsco Industrial Segment.

The Company has announced its intention to pursue strategic options for the separation of the Harsco Metals & Minerals Segment from the rest of the Company. A separation of the Harsco Metals & Minerals Segment would allow each of the Company's businesses to benefit from dedicated capital structures; execute tailored and flexible strategic priorities; and optimize capital return policies consistent with each business's unique priorities. There is no specific timetable related to this initiative and there can be no assurance that a sale, spin-off or any other transaction will take place. The Company incurred $3.3 million and $9.9 million of expenses during 2016 and 2015, respectively, related to the separation, which are included as part of Corporate in the Company's segment results.

Revenues by Segment

(Dollars in millions)	2016	2015	Change	%
Harsco Metals & Minerals	**$ 965.5**	$ 1,106.2	$ (140.6)	(12.7)%
Harsco Industrial	**247.5**	357.3	(109.7)	(30.7)
Harsco Rail	**238.1**	259.7	(21.6)	(8.3)
Total Revenues	**$ 1,451.2**	$ 1,723.1	$ (271.9)	(15.8)%

Revenues by Region

(Dollars in millions)	2016	2015	Change	%
Western Europe	**$ 418.6**	$ 488.7	$ (70.0)	(14.3)%
North America	**654.3**	807.7	(153.3)	(19.0)
Latin America (a)	**164.3**	181.6	(17.3)	(9.5)
Asia-Pacific	**136.9**	153.7	(16.9)	(11.0)
Middle East and Africa	**46.7**	52.3	(5.6)	(10.6)
Eastern Europe	**30.3**	39.1	(8.8)	(22.5)
Total Revenues	**$ 1,451.2**	$ 1,723.1	$ (271.9)	(15.8)%

(a) Includes Mexico.

Revenues for the Company totaled $1.5 billion and $1.7 billion for 2016 and 2015, respectively. The change is primarily related to the impact of price and volume changes across all segments; exited contracts in the Harsco Metals & Minerals Segment; and the impacts of foreign currency translation. Foreign currency translation decreased revenues by $51.0 million for 2016 in comparison with the prior year.

Operating Income and Operating Margins by Segment

(Dollars in millions)	2016	2015	Change	%
Harsco Metals & Minerals	**$ 81.6**	$ 26.3	$ 55.3	210.5 %
Harsco Industrial	**23.2**	57.0	(33.8)	(59.3)
Harsco Rail	**(17.5)**	50.9	(68.4)	(134.4)
Corporate (b)	**(23.8)**	(45.7)	21.8	47.8
Total Operating Income	**$ 63.5**	$ 88.5	$ (25.1)	(28.3)%

	2016	2015
Harsco Metals & Minerals	**8.5 %**	2.4%
Harsco Industrial	**9.4**	16.0
Harsco Rail	**(7.4)**	19.6
Consolidated Operating Margin	**4.4 %**	5.1%

(b) Corporate includes $3.3 million and $9.9 million of expenses related to the potential Harsco Metals & Minerals Segment separation for twelve months ended December 31, 2016 and 2015, respectively.

Operating income from continuing operations for 2016 was $63.5 million compared with operating income from continuing operations of $88.5 million in 2015. Foreign currency translation increased Operating income by $3.4 million for 2016 in comparison to prior year. Refer to the segment discussions below for information pertaining to factors positively affecting and negatively impacting operating income.

Harsco Metals & Minerals Segment:

Significant Impacts on Revenues (In millions)	
Revenues—2015	$ 1,106.2
Net impact of new contracts and lost contracts (including exited underperforming contracts).	(67.2)
Impact of foreign currency translation.	(43.4)
Net impacts of price/volume changes, primarily attributable to volume changes.	(30.1)
Revenues—2016	**$ 965.5**

Factors Positively Affecting Operating Income:

- Incremental Project Orion restructuring benefits related to compensation savings of approximately $15 million during 2016, associated with the last phase of Project Orion.
- The effect of new contracts, exited underperforming contracts and lower maintenance, fuel and pension costs.

- Increased volumes in the roofing granules and industrial abrasives business, due partly to favorable weather conditions during 2016.
- Costs incurred by the Harsco Metals & Minerals Segment related to a steel mill customer liquidation, salt cake disposal costs, charges associated with a subcontractor settlement and additional site exit costs. These items decreased operating income by $30.8 million during 2015 and did not repeat in 2016.
- Foreign currency translation in 2016 positively affected operating income for this segment compared with the prior year.

Factors Negatively Impacting Operating Income:

- Decreased global steel production. Overall, steel production by customers under services contracts, including the impact of exited contracts, decreased by 10% for 2016 compared with the prior year. Excluding the impact of exited contracts, steel production by customers under services contracts decreased by 2% for 2016 compared with the prior year.
- Decreased income attributable to the impact of lost contracts and reduced nickel prices and demand. Nickel prices decreased 20% during 2016 compared with the prior year.
- Severance costs resulting from a probable site exit decreased operating income by $5.1 million during 2016.

Harsco Industrial Segment:

Significant Impacts on Revenues (In millions)		
Revenues—2015	$	357.3
Net impacts of price/volume changes, primarily attributable to volume changes.		(106.4)
Impact of foreign currency translation.		(3.4)
Revenues—2016	**$**	**247.5**

Factors Positively Affecting Operating Income:

- Operating income was aided by $9.1 million of lower selling, general and administrative costs in 2016 compared with the prior year.
- The effect of delivering the Mexico City International Airport security fencing order in 2016.

Factors Negatively Impacting Operating Income:

- Lower overall volumes in the air-cooled heat exchangers business, resulting in decreased operating income during 2016. These lower volumes are primarily attributable to lower energy prices which impacted capital spending by customers in the oil and natural gas industries served by the Company.
- Lower volumes and higher material costs in the industrial grating products business.
- 2015 included gains from sales of assets of $3.6 million which did not repeat during 2016.

Harsco Rail Segment:

Significant Impacts on Revenues (In millions)		
Revenues—2015	$	259.7
Net impact of price/volume changes, primarily attributable to volume changes.		(17.4)
Impact of foreign currency translation.		(4.2)
Revenues—2016	**$**	**238.1**

Factors Positively Affecting Operating Income (Loss):

- Increased sales of international equipment, spare parts and safety equipment.
- Operating income (loss) was aided by $1.4 million of lower selling, general and administrative costs in 2016 compared with the prior year.

Factors Negatively Impacting Operating Income (Loss):

- During 2016, the Harsco Rail Segment recorded an estimated forward loss provision of $45.1 million related to the Company's contracts with SBB. See Note 4, Accounts Receivable and Inventories, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.
- Foreign currency gain of $10.9 million recognized during 2015 which did not repeat in 2016.
- Decreased volumes in North America and a less favorable mix of equipment sales decreased operating income (loss) during 2016 compared with the prior year.
- Lower volumes and higher costs for contract services decreased operating income (loss) during 2016 compared with the prior year.

Outlook, Trends and Strategies

Despite uncertainties in the global economy, along with the persistent challenges of global steel production and related pricing, as well as low oil prices, the Company believes it is positioned to execute actions through a disciplined focus on return-based capital allocations and business portfolio strategies. The Company believes these actions will enable it to generate returns above its cost of capital with a balanced business portfolio without endangering its financial profile with unreasonable leverage.

These business portfolio strategies will continue to focus on improving the performance of the Harsco Metals & Minerals Segment while pursuing select growth opportunities as global steel markets recover. For the Harsco Rail and Harsco Industrial Segments, the Company will focus on disciplined growth organically, and through acquisitions, that improve these businesses' competitive positions in core or adjacent markets. The Company will continue to pursue cost-reduction and efficiency initiatives, including Continuous Improvement, which have significantly reduced, and are expected to continue to reduce, the Company's cost structure and further enhance its financial strength without diminishing its services and products capabilities. As part of these initiatives, the Company will continue to focus on maintaining an active, lean corporate center that optimizes corporate costs while continuing to develop value added activities to support the Company.

The Company's expansion into targeted growth markets; its diversity of services and products in industries that are fundamental to global growth; its long-term mill services and minerals supply contracts; its differentiated technologies and innovations; its return based capital allocations and business portfolio strategies; and its focus on executing cost reduction and efficiency initiatives, help mitigate the Company's overall long-term exposure to changes in the economic outlook in any single economy or industry. However, deterioration of global economies and industries could still have an adverse impact on the Company's results of operations, financial condition and cash flows.

The following significant items, risks, trends and strategies are expected to affect the Company in 2017 and beyond:

- The Company will focus on providing returns above its cost of capital for its stockholders by balancing its portfolio of businesses, and by executing its strategic and operational practices with reasonable amounts of financial leverage.
- The Company will continue to build and develop strong core capabilities and maintain an active and lean corporate center that balances costs with value added services.
- The Company will assess capital needs in the context of operational trends and strategic initiatives. Management will be selective and disciplined in allocating capital by rigorously analyzing projects and utilizing a return-based capital allocation process.
- The Company expects its operational effective income tax rate to approximate 39% to 41% in 2017.
- The potential consequences related to uncertainty surrounding the United Kingdom's proposed exit from the European Union may have an impact on the Company results of operations, cash flows and asset valuations in any period particularly in the Harsco Metals & Minerals Segment. See Part I, Item 1A, Risk Factors for additional information.

Harsco Metals & Minerals Segment:

- Steel markets demonstrated some pricing improvement during 2016 and the Company expects modest improvements in demand, the effect of new contracts, the continued benefits achieved as part of Project Orion and additional improvement initiatives to positively affect operating income in the near term in the Harsco Metals & Minerals Segment. These improvements will be partially offset by possible site exits and the anticipated impact of foreign currency translation.
- In addition to the benefits and discipline that resulted from Project Orion, the Company will continue to focus on ensuring that forecasted profits and other requirements for contracts meet certain established standards and deliver returns above its cost of capital. In connection with this focus, the possibility exists that the Company may take strategic actions that result in exit costs and non-cash asset impairment charges that may have an adverse effect on the Company's results of operations and liquidity.
- In February 2016, the Company announced a new 15-year contract with China's largest steel maker with anticipated revenues totaling approximately $125 million over the life of the contract. In March 2016, the Company secured a contract extension for steel mill services in Belgium with projected revenues totaling more than $100 million. During the third quarter of 2016, the Company announced expanded services with Chile's largest steelmaker and a new contract in Egypt with projected revenues totaling more than $40 million and $35 million, respectively. In November 2016, the Company announced a multi-year expansion of steel mill services at a North American customer with projected revenues totaling more than $50 million. Additionally, the Company recently announced two multi-year contracts for steel mill services in China and Brazil with projected revenues totaling more than $100 million.

- As the Company has previously disclosed, over the past several years the Company has been in discussions with officials at the Supreme Council for Environment in Bahrain ("Bahrain Council") with regard to a processing by-product ("salt cakes") located at Hafeera. During 2015, the Company recorded a charge of $7.0 million, payable over five to seven years, related to the estimated cost of processing and disposal of the salt cakes. The Company's Bahrain operations are operated under a strategic venture for which its strategic venture partner has a 35% minority interest. The Company is awaiting final approval from the Bahrain Council regarding the proposed processing and disposal method. If the Bahrain Council does not approve the proposed method or mandates alternative solutions, the Company's estimated liability could change, and such change could be material in any one period.
- During 2016, one of the Company's customers announced its intention to conduct a strategic review of its steel making operations in Europe, including the possibility of strategic collaborations through a joint venture with another major steel maker. Depending on the outcome of any potential transactions, there could be a material impact on the Company's results of operations, cash flows and asset valuations in any one period.
- One of the Company's customers in Australia has begun the process of voluntary administration under Australian law, the purpose of which is to focus on long-term solvency. The customer is continuing its operations during the voluntary administration proceedings. The Company had approximately $5 million of receivables with the customer prior to the start of the voluntary administration and continues to believe that these amounts are collectible, because the Company is viewed as an important supplier, continues to provide services to the customer and continues to collect on post-administration invoices timely. However the administration process is uncertain in nature and length. No additional creditors' meeting is scheduled at this time. As such, a loss on the pre-administration receivables is reasonably possible, and if there was a change in the Company's view on collectability, there could be a charge against income in future periods. Moreover, if the site were to close, additional costs may be incurred and asset valuations may be impacted, which may be significant in any one period.

Harsco Industrial Segment:

- While energy markets have demonstrated some fundamental improvement, the Harsco Industrial Segment's air-cooled heat exchangers and industrial grating businesses will lag the market given the lead time for capital expenditures to formalize into new projects for customers in the upstream, midstream, and downstream oil and gas markets served by the Company to be constrained. Accordingly, these factors are expected to impact revenue and operating income during the first half of 2017 in the Harsco Industrial Segment.
- The Company is committed to maintaining recent efficiency gains in the air-cooled heat exchangers and industrial grating products businesses and implementing additional improvements in response to the recent industry and economic challenges.
- The Company will continue to focus on product innovation and development to drive strategic growth in its businesses. During 2016, the Company introduced GrateGuard™, a new fencing solution for first-line physical security in the Industrial grating business. Additionally, the Company recently announced the launch of an all-new capability for remote indoor boiler monitoring that can be downloaded directly to wireless and desktop devices.
- The Company will focus on growing the Harsco Industrial Segment through disciplined organic expansion and acquisitions that improve competitive positioning in core markets or adjacent markets.

Harsco Rail Segment:

- The global demand for railway maintenance-of-way equipment, parts and services continues to be generally positive, though the North American market is experiencing weakness due to reduced capital and operating spending by Class I railways.
- During April 2016, the Company was awarded a multi-year rail grinding services contract extension in the U.K. with anticipated revenues of at least $38 million. During December 2016, the Company announced new sales of railway track grinders for use in contract rail grinding programs throughout North America. Additionally, during January 2017, the Company announced a new order to equip the entire Denver, Colorado regional railway fleet with enhanced safety systems.
- In prior years, the Company secured two contract awards with initial contract values totaling approximately $200 million from SBB. The majority of deliveries under these contracts are anticipated to occur during 2017 through 2020. The Harsco Rail Segment recorded estimated forward loss provisions of $40.1 million and $5.0 million during the second and fourth quarters of 2016, respectively, which resulted from increased vendor costs, ongoing discussions with SBB, and increased estimates for commissioning, certification and testing costs, as well as expected settlements with SBB. It is possible that the Company's overall estimate of costs to complete these contracts may increase which would result in an additional estimated forward loss provision at such time. See Note 1, Summary of Significant Accounting Policies - Revenue Recognition, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.
- The Company will focus on growing the Harsco Rail Segment through disciplined organic expansion and acquisitions that improve competitive positioning in core markets or adjacent markets.

Results of Operations

(In millions, except per share information and percentages)	2016	2015	2014
Total revenues	**$ 1,451.2**	$ 1,723.1	$ 2,066.3
Cost of services and products sold	**1,170.5**	1,356.4	1,643.9
Selling, general and administrative expenses	**200.4**	242.1	284.7
Research and development expenses	**4.3**	4.5	5.5
Loss on disposal of the Harsco Infrastructure Segment and transaction costs	**—**	1.0	5.1
Other expenses	**12.6**	30.6	57.8
Operating income from continuing operations	**63.5**	88.5	69.3
Interest income	**2.5**	1.6	1.7
Interest expense	**(51.6)**	(46.8)	(47.1)
Loss on early extinguishment of debt	**(35.3)**	—	—
Change in fair value to the unit adjustment liability and loss on dilution and sale of equity method investment	**(58.5)**	(8.5)	(9.7)
Income tax expense from continuing operations	**(6.6)**	(27.7)	(30.4)
Equity in income (loss) of unconsolidated entities, net	**5.7**	0.2	(1.6)
Income (loss) from continuing operations	**(80.4)**	7.3	(17.8)
Income (loss) from discontinued operations	**0.7**	(1.0)	0.1
Net income (loss)	**(79.8)**	6.3	(17.7)
Total other comprehensive income (loss)	**(93.6)**	13.9	(163.2)
Total comprehensive income (loss)	**(173.4)**	20.3	(180.9)
Diluted income (loss) per common share from continuing operations attributable to Harsco Corporation common stockholders	**(1.07)**	0.09	(0.28)
Effective income tax rate for continuing operations	**(8.4)%**	79.5%	214.8%

Comparative Analysis of Consolidated Results

Total Revenues

Revenues for 2016 decreased $271.9 million or 16% from 2015. This decrease was attributable to the following significant items:

Changes in Revenues - 2016 vs. 2015 (In millions)	
Net impacts of price/volume changes in the Harsco Industrial Segment, primarily attributable to volume changes.	$ (106.4)
Net impact of new contracts and lost contracts (including exited underperforming contracts) in the Harsco Metals & Minerals Segment.	(67.2)
Impact of foreign currency translation.	(51.0)
Net impacts of price/volume changes in the Harsco Metals & Minerals Segment, primarily attributable to volume changes.	(30.1)
Net impacts of price/volume changes, primarily attributable to volume changes in the Harsco Rail Segment.	(17.4)
Other.	0.2
Total change in revenues - 2016 vs. 2015	$ (271.9)

Revenues for 2015 decreased $343.2 million or 17% from 2014. This decrease was attributable to the following significant items:

Changes in Revenues - 2015 vs. 2014 (In millions)	
Impact of foreign currency translation.	$ (170.1)
Net impact of new contracts and lost contracts (including exited underperforming contracts) in the Harsco Metals & Minerals Segment.	(72.2)
Net impacts of price/volume changes in the Harsco Industrial Segment, primarily attributable to volume changes.	(50.8)
Net impacts of price/volume changes in the Harsco Metals & Minerals Segment, primarily attributable to volume changes.	(38.1)
Net impacts of price/volume changes, primarily attributable to volume changes in the Harsco Rail Segment, including the effect of the Protran and JK Rail acquisitions.	(11.8)
Other.	(0.2)
Total change in revenues - 2015 vs. 2014	$ (343.2)

Cost of Services and Products Sold

Cost of services and products sold for 2016 decreased $185.9 million or 14% from 2015. This decrease was attributable to the following significant items:

Change in Cost of Services and Products Sold - 2016 vs. 2015 (In millions)		
Decreased costs due to changes in revenues (exclusive of the effects of foreign currency translation and fluctuations in commodity costs included in selling prices).	$	(165.3)
Impact of foreign currency translation.		(47.2)
Other.		(18.5)
Increased costs due to estimated forward loss provision in the Harsco Rail Segment (a).		45.1
Total Change in Cost of Services and Products Sold 2016 vs. 2015	$	(185.9)

(a) See Note 4, Accounts Receivable and Inventories, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.

Cost of services and products sold for 2015 decreased $287.5 million or 17% from 2014. This decrease was attributable to the following significant items:

Change in Cost of Services and Products Sold - 2015 vs. 2014 (In millions)		
Impact of foreign currency translation.	$	(151.5)
Decreased costs due to changes in revenues (exclusive of the effects of foreign currency translation and fluctuations in commodity costs included in selling prices).		(124.4)
Other.		(11.6)
Total Change in Cost of Services and Products Sold 2015 vs. 2014	$	(287.5)

Selling, General and Administrative Expenses

Selling, general and administrative expenses for 2016 decreased $41.7 million or 17% from 2015. This decrease was primarily related to the impact of reduced bad debt expense in the Harsco Metals & Minerals Segment; decreased agent and broker commissions in the Harsco Industrial Segment due to lower volume; and foreign currency translation. Additionally, results for 2016 were also impacted by lower pension expense, professional fees and compensation costs associated with Project Orion in the Harsco Metals & Minerals Segment and travel costs.

Selling, general and administrative expenses for 2015 decreased $42.6 million or 15% from 2014. This decrease was primarily related to the impact of lower compensation costs associated with Project Orion in the Harsco Metals & Minerals Segment, foreign currency translation, lower professional fees, and decreased agent and broker commissions in the Harsco Rail and Industrial Segments, partially offset by increased bad debt expense due principally to a Harsco Metals & Minerals Segment's steel mill customer liquidation.

Loss on Disposal of the Harsco Infrastructure Segment and Transaction Costs

The Company recorded a loss on disposal of the Harsco Infrastructure Segment and related transaction costs of $1.0 million and $5.1 million during 2015 and 2014, respectively. See Note 3, Acquisitions, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.

Other Expenses

This income statement classification includes: certain foreign currency gains, net gains on disposal of non-core assets, employee termination benefit costs and costs to exit activities. Additional information on Other expenses is included in Note 17, Other Expenses, in Part II, Item 8, “Financial Statements and Supplementary Data." During 2016, 2015 and 2014, the Company recorded pre-tax Other expenses of $12.6 million, $30.6 million and $57.8 million, respectively. The major components of this income statement caption are as follows:

	Other (Income) Expenses		
(In thousands)	**2016**	**2015**	**2014**
Net gains	**$ (1,764)**	$ (10,613)	$ (6,718)
Employee termination benefits costs	**10,777**	14,914	19,120
Other costs to exit activities	**440**	13,451	4,908
Impaired asset write-downs	**399**	8,170	39,455
Foreign currency gains related to Harsco Rail Segment advances on contracts	**—**	(10,940)	—
Harsco Metals & Minerals Segment separation costs	**3,235**	9,922	—
Subcontractor settlement	**—**	4,220	—
Other expense	**(467)**	1,449	1,059
Total	**$ 12,620**	$ 30,573	$ 57,824

Interest Expense

2016 vs. 2015
Interest expense in 2016 was $51.6 million, an increase of $4.8 million or 10% compared with 2015. The increase primarily relates to $1.1 million of deferred financing costs expensed by the Company during the third quarter of 2016 related to payments for the Term Loan Facility and increased interest rates associated with the Company's borrowings, as well as other financing costs partially offset by lower debt levels. See Note 8, Debt and Credit Agreements, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.

2015 vs. 2014
Interest expense in *2015* was $46.8 million, a decrease of $0.3 million or 1% compared with 2014. There were no individually significant items related to the change in this Statement of Operations caption.

Loss on Early Extinguishment of Debt
In November 2016, the Company entered into a New Credit Facility, consisting of a $400 million revolving credit facility and a $550 million term loan B facility. Upon closing of the New Credit Facility, the Company has amended and extended the existing Revolving Credit Facility, repaid the existing Term Loan Facility and has redeemed, satisfied and discharged the Notes in accordance with the indenture governing the Notes. As a result, a charge of $35.3 million was recorded during the fourth quarter of 2016 consisting principally of the cost of early extinguishment of the Notes and the write-off of unamortized deferred financing costs associated with the Company's existing Senior Secured Credit Facilities and the Notes. See Note 8, Debt and Credit Agreements, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.

Change in Fair Value to the Unit Adjustment Liability and Loss on Dilution and Sale of Equity Method Investment
The Change in fair value to the unit adjustment liability and loss on dilution and sale of equity method investment during 2016 increased $50.0 million compared with 2015. The increase relates to the loss associated with Company's first quarter of 2016 election not to make the quarterly cash payments to the Company's partner in the Infrastructure strategic venture for the remainder of 2016 and the Company's third quarter of 2016 sale of its remaining equity interest in the Infrastructure strategic venture. See Note 5, Equity Method Investments and Note 15, Financial Instruments, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information.

Income Tax Expense from Continuing Operations

2016 vs. 2015
Income tax expense from continuing operations in 2016 was $6.6 million, a decrease of $21.0 million compared with 2015. The effective income tax rate relating to continued operations for 2016 was (8.4)% versus 79.5% for 2015. The decrease in income tax expense and the change in the effective income tax rate related to continuing operations was primarily due to the change in the mix in earnings between international jurisdictions and the non-recurring loss on early extinguishment of debt. Additionally, there was no income tax benefit realized from the loss on the sale of the Company's equity interest in Brand, as a valuation allowance of $16.1 million was established to offset the deferred tax assets on the resulting capital loss carryforward. There was also no income tax benefit realized from the estimated forward loss provisions related to the SBB contracts, as a valuation allowance of $13.5 million was established to offset the deferred tax assets on the resulting loss carryforward, because the Company determined that it is not more likely than not that these benefits will be realized in the future.

2015 vs. 2014
Income tax expense from continuing operations in 2015 was $27.7 million, a decrease of $2.7 million compared with 2014 and the effective income tax rate relating to continued operations for 2015 was 79.5% versus 214.8% for 2014. The decrease in income tax expense and the change in the effective income tax rate related to continuing operations was primarily due to a reduction in restructuring and asset impairment charges in the Harsco Metals & Minerals Segment for which no tax benefit was recorded.

See Note 11, Income Taxes, in Part II, Item 8, “Financial Statements and Supplementary Data" for additional information.

Total Other Comprehensive Income (Loss)

2016 vs. 2015
Total other comprehensive loss was $93.6 million in 2016, compared with total other comprehensive income of $13.9 million in 2015. The major drivers for this change were pension liability adjustments and foreign currency translation adjustments. The pension liability adjustments were the result of lower global weighted average discount rates, principally for the U.K. plan, which decreased from 3.9% to 3.1% during the year. This was partially offset by actual returns on plan assets that were higher than expected returns. Foreign currency translation adjustments were negatively impacted by the continued strengthening of the U.S. dollar.

2015 vs. 2014
Total other comprehensive income was $13.9 million in 2015, compared with total other comprehensive loss of $163.2 million in 2014. The major drivers for this change were pension liability adjustments, partially offset by foreign currency translation adjustments. The pension liability adjustments were the result of higher global weighted average discount rates that increased from 3.7% to 3.9% during the year, partially offset by actual returns on plan assets that were less than the expected returns. Foreign currency translation adjustments were negatively impacted by the strengthening of the U.S. dollar against most currencies.

Liquidity and Capital Resources

Overview
In November 2016, the Company entered into a Senior Secured Credit Facility, consisting of a $400 million Revolving Credit Facility and a $550 million Term Loan Facility. Upon closing of the Senior Secured Credit Facility, the Company amended and extended the existing Revolving Credit Facility, repaid the existing term loan A facility and redeemed, satisfied and discharged the Notes in accordance with the indenture governing the Notes. As a result, a charge of $35.3 million was recorded during the fourth quarter of 2016 consisting principally of the cost of early extinguishment of the Notes and the write-off of unamortized deferred financing costs associated with the Company’s existing Financing Agreements and the Notes, and is reflected in the financing activities section of the Consolidated Statements of Cash Flows as a reduction of long-term debt.

The Company has sufficient financial liquidity and borrowing capacity to support the strategies within each of our businesses. The Company currently expects operational and business needs to be met by cash provided by operations supplemented with borrowings from time to time due to historical patterns of seasonal cash flow and for the funding of various projects. The Company continues to assess its capital needs in the context of operational trends and strategic initiatives.

The Company continues to implement and perform capital efficiency initiatives to enhance liquidity and working capital efficiency. These initiatives have included: prudent allocation of capital spending to those projects where the highest results can be achieved; optimization of worldwide cash positions; reductions in discretionary spending; frequent evaluation of customer and business-partner credit risk; and Continuous Improvement initiatives aimed at improving the effective and efficient use of working capital, particularly in accounts receivable and inventories.

During 2016, the Company generated $159.8 million in operating cash flow, an increase from the $121.5 million generated in 2015.

In 2016, the Company invested $69.3 million in capital expenditures, mostly for the Harsco Metals & Minerals Segment, compared with $123.6 million in 2015. The Company generated $9.3 million in cash flow from asset sales in 2016 compared with $26.0 million in 2015. Asset sales have been a normal part of the Company's business model, primarily for the Harsco Metals & Minerals Segment.

In September 2016, the Company received approximately $145 million in cash, net, from the sale of its remaining 26% equity interest in Brand. In 2016, the Company received proceeds from the termination of cross-currency interest rate swaps ("CCIRs") of $16.6 million compared with $75.1 million in 2015. The Company paid $4.1 million and $65.7 million in dividends to stockholders in 2016 and 2015, respectively. The Company has suspended the quarterly dividend to preserve financial flexibility. The Board of Directors (the "Board") will continue to evaluate the Company's dividend policy each quarter.

The Company's net cash borrowings decreased by $261.2 million in 2016 principally due to the utilization of operating cash flows, proceeds from the termination of CCIRs and proceeds from the sale of the Company's equity interest in Brand. The Company’s consolidated net debt to consolidated adjusted earnings before interest, tax, depreciation and amortization ("EBITDA") ratio, as defined by the Credit Agreement, was 2.3 to 1.0 at December 31, 2016.

Cash Requirements

The following summarizes the Company's expected future payments related to contractual obligations and commercial commitments at December 31, 2016:

Contractual Obligations and Commercial Commitments at December 31, 2016 (a)

		Payments Due by Period			
(In millions)	**Total**	**Less than 1 year**	**1-3 years**	**3-5 years**	**After 5 years**
Short-term borrowings	$ 4.3	$ 4.3	$ —	$ —	$ —
Long-term debt (including current maturities and capital leases)	673.4	25.6	16.1	109.2	522.5
Projected interest payments on long-term debt (b)	237.6	37.9	72.4	70.1	57.2
Pension obligations (c)	22.9	22.9	—	—	—
Operating leases (non-cancellable)	57.5	12.5	16.6	11.5	16.9
Purchase obligations (d)	123.1	93.9	23.6	5.6	—
Cross-currency interest rate swaps (e)	—	—	—	—	—
Foreign currency exchange forward contracts (f)	—	—	—	—	—
Total contractual obligations (g)	$ 1,118.8	$ 197.1	$ 128.7	$ 196.4	$ 596.6

(a) See Note 8, Debt and Credit Agreements; Note 9, Operating Leases; Note 10, Employee Benefit Plans; Note 11, Income Taxes; and Note 15, Financial Instruments, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information on short-term borrowings and long-term debt (including capital leases); operating leases; employee benefit plans; income taxes; CCIRs and foreign currency exchange forward contracts, respectively.

(b) The total projected interest payments on long-term debt are based upon borrowings, interest rates and foreign currency exchange rates at December 31, 2016. The interest rates on variable-rate debt and the foreign currency exchange rates are subject to changes beyond the Company's control and may result in actual interest expense and payments differing from the amounts projected above.

(c) Amounts represent expected employer contributions to defined benefit pension plans for the next year.

(d) Purchase obligations represent legally binding obligations to purchase property, plant and equipment, inventory and other commitments made in the normal course of business to meet operations requirements.

(e) Due to the nature of these CCIRs, based on December 31, 2016 fair values there would be net cash received of $0.4 million comprised of cash payments of $2.3 million and cash receipts of $2.7 million. Accordingly, no amounts are included in the above table. The CCIRs are recorded on the Consolidated Balance Sheets at fair value.

(f) Amounts represent the fair value of the foreign currency exchange contracts outstanding at December 31, 2016. Due to the nature of these contracts, based on fair values at December 31, 2016 there will be net cash received of $1.4 million comprised of cash payments of $600.9 million and cash receipts of $602.3 million. Accordingly, no amounts are included in the above table. The foreign currency exchange contracts are recorded on the Consolidated Balance sheets at fair value.

(g) At December 31, 2016, in addition to the above contractual obligations, the Company had $5.7 million of potential long-term tax liabilities, including interest and penalties, related to uncertain tax positions. Because of the high degree of uncertainty regarding the future cash flows associated with these potential long-term tax liabilities, the Company is unable to estimate the years in which settlement will occur with the respective taxing authorities.

Off-Balance Sheet Arrangements

The following table summarizes the Company's contingent commercial commitments at December 31, 2016. These amounts are not included on the Consolidated Balance Sheets since there are no current circumstances known to management indicating that the Company will be required to make payments on these contingent commercial commitments.

Commercial Commitments at December 31, 2016

		Amount of Commercial Commitment Expiration Per Period				
(In millions)	**Total**	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**Over 5 Years**	**Indefinite Expiration**
Standby letters of credit	$ 92.2	$ 89.8	$ 2.4	$ —	$ —	$ —
Guarantees	60.1	3.8	—	6.6	8.6	41.1
Performance bonds	127.0	101.6	3.2	20.6	—	1.6
Other commercial commitments	11.1	—	—	—	—	11.1
Total commercial commitments	$ 290.4	$ 195.2	$ 5.6	$ 27.2	$ 8.6	$ 53.8

Certain commercial commitments that are of a continuous nature do not have an expiration date and are therefore considered to be indefinite in nature. See Note 15, Financial Instruments, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information.

Sources and Uses of Cash
The Company's principal sources of liquidity are cash provided by operations and borrowings under its Senior Secured Credit Facility, augmented by cash proceeds from asset sales. The primary drivers of the Company's cash flow from operations are the Company's revenues and income. Cash returns on capital investments made in the prior years, for which limited cash is currently required, are a significant source of cash provided by operations. Depreciation expense related to these investments is a non-cash charge.

The Company plans to redeploy discretionary cash for potential growth opportunities, such as disciplined organic growth and higher-return service contracts opportunities for the Harsco Metals & Minerals Segment, and strategic investments or possible acquisitions in the Harsco Rail and Harsco Industrial Segments that improve competitive positioning in core markets or adjacent markets.

Resources Available for Cash Requirements for Operational and Growth Initiatives
In addition to utilizing cash provided by operations and cash proceeds from asset sales, the Company has bank credit facilities available throughout the world. The Company also utilizes capital leases to finance the acquisition of certain equipment when appropriate, which allows the Company to minimize capital expenditures. The Company expects to continue to utilize all these sources to meet future cash requirements for operations and growth initiatives.

On December 2, 2015, the Company entered into (i) an amendment and restatement agreement and (ii) a second amended and restated credit agreement (together, the "Financing Agreements"). The Financing Agreements increased the Company's overall borrowing capacity from $500 million to $600 million by (i) amending and restating the Company's then existing credit agreement, (ii) establishing a term loan A facility in an initial aggregate principal amount of $250 million, by converting a portion of the outstanding balance under the then existing credit agreement on a dollar-for-dollar basis and (iii) reducing the Revolving Credit Facility limit to $350 million.

During September 2016, the Company received approximately $145 million in cash, net, from its sale of its remaining 26% equity interest in the Infrastructure strategic venture. The Company used these proceeds to repay $85.0 million on the term loan A facility and $60.0 million on the Revolving Credit Facility. Related to the repayment of the term loan A facility, the Company expensed $1.1 million of previously deferred financing costs.

In November 2016, the Company entered into the Senior Secured Credit Facility. Upon closing of the Senior Secured Credit Facility, the Company amended and extended the existing Revolving Credit Facility, repaid the existing term loan A facility and redeemed, satisfied and discharged the Notes in accordance with the indenture governing the Notes.

Borrowings under the Revolving Credit Facility bear interest at a rate per annum ranging from 87.5 to 200 basis points over the base rate or 187.5 to 300 basis points over the adjusted London Interbank Offered Rate ("LIBOR") as defined in the credit agreement governing the Senior Secured Credit Facility (the "Credit Agreement"). Any principal amount outstanding under the Revolving Credit Facility is due and payable on the maturity of the Revolving Credit Facility. The Revolving Credit Facility matures on November 2, 2021.

Borrowings under the Term Loan Facility bear interest at a rate per annum ranging from 375 to 400 basis points over the base rate or 475 to 500 basis points over the adjusted LIBOR rate, subject to a 1% floor, as defined in the Credit Agreement. The Term Loan Facility requires scheduled quarterly payments, beginning in March 2017, each equal to 0.25% of the original principal amount of the loans under the Term Loan Facility. These payments are reduced by the application of any prepayments, and any remaining balance is due and payable on the maturity of the Term Loan Facility. The Term Loan Facility matures on November 2, 2023.

The Senior Secured Credit Facility imposes certain restrictions including, but not limited to, restrictions as to types and amounts of debt and liens that may be incurred by the Company; limitations on increases in dividend payments and limitations on certain acquisitions by the Company.

The obligations of the Company are guaranteed by substantially all of the Company's current and future wholly-owned domestic subsidiaries ("Guarantors"). All obligations under the Senior Credit Facility, and the guarantees of those obligations, are secured, subject to certain exceptions, by substantially all of the Company's assets and the assets of the Guarantors.

In January 2017, the Company entered into a series of fixed-floating interest rate swaps that cover the period from 2018 through 2021, and had the effect of converting $300 million of the Term Loan Facility from floating-rate to fixed-rate. The fixed rates provided by the swaps replace the adjusted LIBOR rate in the interest calculation, range from 1.65% for 2018 to 2.71% for 2021.

The following table illustrates available credit at December 31, 2016:

(In millions)	Facility Limit	Outstanding Balance	Outstanding Letters of Credit	Available Credit
Multi-year revolving credit facility	**$ 400.0**	**$ 98.0**	**$ 43.5**	**$ 258.5**

At December 31, 2016, the Company had $648.0 million of borrowings under the Senior Secured Credit Facility consisting of $550.0 million under the Term Loan Facility and $98.0 million under the Revolving Credit Facility. At December 31, 2016, of this balance, $642.5 million was classified as long-term debt and $5.5 million was classified as current maturities of long-term debt on the Consolidated Balance Sheet. At December 31, 2015, the Company had $415.0 million of borrowings under the Senior Secured Credit Facilities consisting of $250.0 million under the term loan A facility and $165.0 million under the Revolving Credit Facility. At December 31, 2015, of this balance, $380.5 million was classified as long-term debt,
$22.0 million was classified as short-term borrowings and $12.5 million was classified as current maturities of long-term debt on the Consolidated Balance Sheets. See Note 8, Debt and Credit Agreements, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information on the Company's Credit Agreement.

Working Capital Position

Changes in the Company's working capital are reflected in the following table:

(Dollars in millions)	December 31 2016	December 31 2015	Increase (Decrease)
Current Assets			
Cash and cash equivalents	**$ 71.9**	$ 79.8	$ (7.9)
Trade accounts receivable, net	**236.6**	254.9	(18.3)
Other receivables, net	**21.1**	30.4	(9.3)
Inventories	**187.7**	217.0	(29.3)
Other current assets	**60.5**	82.5	(22.0)
Total current assets	**577.7**	664.5	(86.8)
Current Liabilities			
Short-term borrowings and current maturities	**29.8**	55.3	(25.5)
Accounts payable	**108.0**	136.0	(28.1)
Accrued compensation	**46.7**	38.9	7.8
Income taxes payable	**4.3**	4.4	(0.1)
Advances on contracts and other customer advances	**117.3**	107.3	10.1
Due to unconsolidated affiliate	**—**	7.7	(7.7)
Unit adjustment liability	**—**	22.3	(22.3)
Other current liabilities	**121.9**	134.2	(12.3)
Total current liabilities	**428.0**	506.1	(78.2)
Working Capital	**$ 149.7**	$ 158.4	$ (8.7)
Current Ratio (h)	**1.3:1**	1.3:1	

(h) Calculated as Current assets / Current liabilities

Working capital decreased $8.7 million or 5.5% in 2016 due primarily to the following factors:

- Working capital was negatively impacted by a decrease in Inventory of $29.3 million, primarily due to the estimated forward loss provisions related to the Company's Harsco Rail Segment's contracts with SBB which is recorded as a reduction of Contracts-in-process, a component of Inventory, as well as the timing of inventory purchases in the Harsco Metals & Minerals Segment;
- Working capital was negatively impacted by a decrease in Other current assets of $22.0 million, primarily due to the timing of current deferred tax assets and prepaid expenses;
- Working capital was negatively impacted by a decrease in Trade accounts receivable, net, of $18.3 million, primarily due to timing of invoicing and collections in the Harsco Metals & Minerals Segment, foreign currency translation and decreased sales in the Harsco Industrial Segment; and
- Working capital was negatively impacted by an increase in Advances on contracts and other customer advances of $10.1 million, primarily received in the Harsco Rail Segment.

These working capital decreases were partially offset by the following factors:

- Working capital was positively affected by a decrease in Accounts payable of $28.1 million, primarily due to the timing of payments;
- Working capital was positively affected by a decrease in Short-term borrowings and current maturities of long-term debt of $25.5 million, primarily due to the expected timing of debt payments;

- Working capital was positively affected by a decrease in the Unit adjustment liability of $22.3 million due to the sale of the Company's equity interest in Brand. See Note 5, Equity Method Investments and Note 15, Financial Instruments, in Part II, Item 8, "Financial Statements and Supplementary Data" for additional information; and
- Working capital was positively affected by a decrease in Other current liabilities of $12.3 million, primarily due to lower accrued commissions, lower accrued interest and the timing of other accruals.

Certainty of Cash Flows

The certainty of the Company's future cash flows is underpinned by the long-term nature of the Company's metals services contracts, the order backlog for the Company's railway track maintenance services and equipment, and overall discretionary cash flows (operating cash flows plus cash from asset sales in excess of the amounts necessary for capital expenditures to maintain current revenue levels) generated by the Company. Historically, the Company has utilized these discretionary cash flows for growth-related capital expenditures, strategic acquisitions, debt repayment and dividend payments.

The types of products and services that the Company provides are not subject to rapid technological change, which increases the stability of related cash flows. Additionally, the Company believes each business in its portfolio is a leader in the industries and major markets the Company serves. Due to these factors, the Company is confident in the Company's future ability to generate positive cash flows from operations.

The Company has historically generated the majority of its cash flows in the second half of the year. Additionally, the Company's cash flows have been negatively impacted in the near term by reduced steel production, weaker commodity prices and demand, the impact of site exits in the Harsco Metals & Minerals Segment and low oil prices impacting capital expenditures and overall spending by customers in the natural gas, natural gas processing and petrochemical industries.

Cash Flow Summary

The Company's cash flows from operating, investing and financing activities, as reflected on the Consolidated Statements of Cash Flows, are summarized in the following table:

(In millions)	2016	2015	2014
Net cash provided (used) by:			
Operating activities	**$ 159.8**	$ 121.5	$ 226.7
Investing activities	**122.9**	(130.4)	(229.6)
Financing activities	**(292.3)**	22.5	(21.8)
Impact of exchange rate changes on cash	**1.7**	3.3	(6.1)
Net change in cash and cash equivalents	**$ (7.9)**	$ 16.9	$ (30.8)

Cash provided by operating activities — Net cash provided by operating activities in 2016 was $159.8 million, an increase of $38.3 million from 2015. The increase is primarily attributable to timing in inventory purchases, increases in accrued compensation and increases on advances on contracts; partially offset by the timing of accounts receivable invoicing and collections and the timing of accounts payables. Net cash provided by operating activities in 2015 was $121.5 million, a decrease of $105.2 million from 2014. The decrease is primarily attributable to lower customer advances, and an increase in inventory primarily related to the SBB contracts in the Harsco Rail Segment, partially offset by the timing of accounts receivable invoicing and collections.

Included in the Cash flows from operating activities section of the Consolidated Statement of Cash Flows is the caption, Other, net. In 2015, this caption included the Harsco Rail Segment foreign exchange gain which is reflected in the Effect of exchange rate changes on cash. In 2014, this caption consisted of principally the impact of non-cash impaired asset write-downs related to the Harsco Metals & Minerals Segment.

Also included in the Cash flows from operating activities section of the Consolidated Statements of Cash Flows is the caption, Other assets and liabilities. For the years ended December 31, 2016, 2015 and 2014, the decreases in this caption were
$12.8 million, $6.0 million and $17.1 million, respectively. A summary of the major components of this caption for the periods presented is as follows:

(In millions)	2016	2015	2014
Net cash provided by (used in):			
Change in prepaid expenses	**$ 6.7**	$ —	$ (15.8)
Change in non-current insurance accruals	**(5.0)**	(5.0)	(6.1)
Other	**(14.5)** (i)	(1.0)	4.8
Total	**$ (12.8)**	$ (6.0)	$ (17.1)

(i) Other relates primarily to other accruals that are individually not significant.

Cash provided (used) by investing activities — Net cash provided by investing activities in 2016 was $122.9 million, an increase of $253.3 million from 2015. The increase is primarily due to the gross proceeds received from the sale of the Company's remaining 26% equity interest in Brand; a lower level of capital expenditures in the Harsco Metals & Minerals Segment, no payments for the unit adjustment liability; and an increase related to foreign currency hedge settlements reported as Other investing activities. In 2015, net cash used by investing activities was $130.4 million, a decrease of $99.2 million from 2014. The net decrease was primarily due to a lower level of capital expenditures, primarily in the Harsco Metals & Minerals Segment; a net decrease in purchases of businesses which consisted of Protran and JK Rail in the Harsco Rail Segment in 2015 and Hammco in the Harsco Industrial Segment in 2014; and an increase in proceeds from sales of assets, partially offset by the final working capital adjustment related to the Infrastructure Transaction which was received in 2014. Capital investments decreased $85.3 million compared with 2014.

Cash provided (used) by financing activities — Net cash used by financing activities in 2016 was $292.3 million, an increase of $314.7 million from 2015. The change was primarily due to net cash payments on debt of $261.2 million in 2016 compared with $47.3 million in 2015; reduction in proceeds from the termination of CCIRs and a deferred pension underfunding payment related to the Company's equity interest in Brand; partially offset by lower dividends paid and no repurchases of the Company's common stock in 2016. In 2015, net cash provided by financing activities was $22.5 million, an increase of $44.2 million from 2014. The change was primarily due to proceeds of $75.1 million from the termination of a CCIR, partially offset by an increase in the treasury shares purchased under the Company's share repurchase program then in effect and a decrease in year-over-year net cash borrowings.

Debt Covenants

The Credit Agreement contains a consolidated net debt to consolidated adjusted EBITDA ratio covenant, which is not to exceed 4.0 to 1.0, and a minimum consolidated adjusted EBITDA to consolidated interest charges ratio covenant, which is not to be less than 3.0 to 1.0. The consolidated net debt to consolidated adjusted EBITDA ratio covenant is reduced to 3.75 to1.0 after December 31, 2016 and to 3.5 to 1.0 after December 31, 2017. At December 31, 2016, the Company was in compliance with these covenants as the net leverage ratio was 2.3 to 1.0 and interest coverage ratio was 5.1 to 1.0. Based on balances and covenants in effect at December 31, 2016, the Company could increase net debt by $447.6 million (although the Company only has $258.5 million available credit remaining under the Revolving Credit Facility), and still be in compliance with these debt covenants. Alternatively, keeping all other factors constant, the Company's adjusted EBITDA could decrease by $109.1 million and the Company would still be within these debt covenants. The Company expects to continue to be in compliance with these debt covenants for at least the next twelve months.

Cash Management

The Company has various cash management systems throughout the world that centralize cash in various bank accounts where it is economically justifiable and legally permissible to do so. These centralized cash balances are then redeployed to other operations to reduce short-term borrowings and to finance working capital needs or capital expenditures. Due to the transitory nature of cash balances, they are normally invested in bank deposits that can be withdrawn at will or in very liquid short-term bank time deposits and government obligations. The Company's policy is to use the largest banks in the various countries in which the Company operates. The Company monitors the creditworthiness of banks and when appropriate will adjust banking operations to reduce or eliminate exposure to less credit-worthy banks. The Company plans to continue the strategy of targeted, prudent investing for strategic purposes for the foreseeable future and to make more efficient use of existing investments.

At December 31, 2016, the Company's consolidated cash and cash equivalents included $70.5 million held by non-U.S. subsidiaries. At December 31, 2016, less than 10% of the Company's consolidated cash and cash equivalents had regulatory restrictions that would preclude the transfer of funds with and among subsidiaries. The cash and cash equivalents held by non-U.S. subsidiaries also included $26.7 million held in consolidated strategic ventures. The strategic venture agreements may require strategic venture partner approval to transfer funds with and among subsidiaries. While the Company's remaining non-U.S. cash and cash equivalents can be transferred with and among subsidiaries, the majority of these non-U.S. cash balances will be used to support the ongoing working capital needs and continued growth of the Company's non-U.S. operations.

The Company's financial position and debt capacity should enable it to meet current and future requirements. The Company continues to assess its capital needs in the context of operational trends and strategic initiatives.

Application of Critical Accounting Policies

The Company's discussion and analysis of its financial condition and results of operations are based upon the consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the U.S. ("U.S. GAAP"). The preparation of these consolidated financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. On an ongoing basis, the Company evaluates the estimates, including those related to defined benefit pension benefits, notes and accounts receivable, goodwill, long-lived asset impairment, inventories, revenue recognition - long-term contracts, insurance reserves and income taxes. The impact of changes in these estimates, as necessary, is reflected in the respective segment's results of operations in the period of the change. The Company bases estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different outcomes, assumptions or conditions.

The Company believes the following critical accounting policies are affected by the Company's more significant judgments and estimates used in the preparation of the consolidated financial statements. Management has discussed the development and selection of the critical accounting estimates described below with the Audit Committee of the Board and they have reviewed the Company's disclosures relating to these estimates in this Management's Discussion and Analysis of Financial Condition and Results of Operations. These items should be read in conjunction with Note 1, Summary of Significant Accounting Policies, in Part II, Item 8, "Financial Statements and Supplementary Data."

Defined Benefit Pension Benefits

The Company has defined benefit pension plans in several countries. The largest of these plans are in the U.K. and the U.S. The Company's funding policy for these plans is to contribute amounts sufficient to meet the minimum funding pursuant to U.K. and U.S. statutory requirements, plus any additional amounts that the Company may determine to be appropriate.

Changes in the discount rate assumption and the actual performance of plan assets compared with the expected long-term rate of return on plan assets are the primary drivers in the change in funded status of the Company's defined benefit pension plans. These factors are components of actuarial loss (gain) and impact the amount recognized in Other comprehensive income (loss), as such actuarial changes are not reflected directly on the Consolidated Statements of Operations, but amortized over time in accordance with U.S. GAAP.

Critical Estimate—Defined Benefit Pension Benefits

Accounting for defined benefit pension plans requires the use of actuarial assumptions. The principal assumptions used include the discount rate and the expected long-term rate of return on plan assets. Each assumption is reviewed annually and represents management's best estimate at that time. The assumptions are selected to represent the average expected experience over time, and may differ in any one year from actual experience due to changes in capital markets and the overall economy. These differences will impact the amount of unfunded benefit obligation and the expense recognized.

The discount rates used in calculating the Company's projected benefit obligations at the December 31, 2016 measurement date for the U.K. and U.S. defined benefit pension plans were 2.7% and 4.0%, respectively, and the global weighted-average discount rate was 3.1%. The discount rates selected represent level-equivalent rates using the yield curve spot rates on a year-by-year expected cash flow basis, using yield curves of high-quality corporate bonds. Annual net periodic pension cost ("NPPC") is determined using the discount rates at the beginning of the year. The discount rates for 2016 expense were 3.8% for the U.K. plan, 4.2% for the U.S. plans and 3.9% for the global weighted-average of plans.

The expected long-term rate of return on plan assets is determined by evaluating the asset return expectations with the Company's advisors as well as actual, long-term, historical results of asset returns for the pension plans. Generally the NPPC increases as the expected long-term rate of return on assets decreases. For 2017 and 2016, the global weighted-average expected long-term rate of return on asset assumption is 6.2% and 6.7%, respectively. This rate was determined based on a model of expected asset returns for an actively managed portfolio.

Changes in NPPC may occur in the future due to changes in actuarial assumptions, and due to changes in returns on plan assets resulting from financial market conditions. Holding all other assumptions constant, using December 31, 2016 plan data, a one-quarter percent increase or decrease in the discount rate and the expected long-term rate of return on plan assets would increase or decrease annual 2016 pre-tax defined benefit NPPC as follows:

Approximate Changes in Pre-tax Defined Benefit Net Periodic Pension Cost

	U.S. Plans	U.K. Plan
Discount rate		
One-quarter percent increase	Increase of $0.1 million	Decrease of $0.4 million
One-quarter percent decrease	Decrease of $0.1 million	Increase of $0.3 million
Expected long-term rate of return on plan assets		
One-quarter percent increase	Decrease of $0.5 million	Decrease of $1.7 million
One-quarter percent decrease	Increase of $0.5 million	Increase of $1.7 million

Increases or decreases to the net pension obligations may be required should circumstances that affect these estimates change. Additionally, certain events could result in the pension obligation changing at a time other than the annual measurement date. This would occur when a benefit plan is amended or when plan curtailments or settlements occur.

The Company has changed the method utilized to estimate the service cost and interest cost components of NPPC for defined benefit pension plans for 2016 and later. The more precise application of discount rates for measuring both service costs and interest costs employs yield curve spot rates on a year-by-year expected cash flow basis, using the same yield curves that the Company has previously used. This change in method represented a change in accounting estimate and has been accounted for in the period of change. This change in method decreased the Company's NPPC by approximately $7 million for 2016, compared to what NPPC would have been under the prior method.

See Note 10, Employee Benefit Plans, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information.

Notes and Accounts Receivable
Notes and accounts receivable are stated at net realizable value through the use of an allowance for doubtful accounts. The allowance for doubtful accounts is maintained for estimated losses resulting from the inability or unwillingness of customers to make required payments. The Company has policies and procedures in place requiring customers to be evaluated for creditworthiness prior to the execution of new service contracts or shipments of products. These reviews are structured to minimize the Company's risk related to realizability of receivables. Despite these policies and procedures, the Company may at times still experience collection problems and potential bad debts due to economic conditions within certain industries (e.g., steel industry), countries or regions in which the Company operates. At December 31, 2016 and 2015, trade accounts receivable of $236.6 million and $254.9 million, respectively, were net of reserves of $11.8 million and $25.6 million, respectively.

Critical Estimate—Notes and Accounts Receivable
A considerable amount of judgment is required to assess the realizability of receivables, including the current creditworthiness of each customer, related aging of past due balances and the facts and circumstances surrounding any non-payment. The Company did not make any significant provisions for bad debts during 2016. The Company's provisions for bad debts during 2015 and 2014 were $13.0 million and $9.9 million, respectively.

On a monthly basis, customer accounts are analyzed for collectability. Reserves are established based upon a specific-identification method as well as historical collection experience, as appropriate. The Company also evaluates specific accounts when it becomes aware of a situation in which a customer may not be able to meet its financial obligations due to a deterioration in financial condition, credit ratings, bankruptcy or receivership. The reserves are based on the facts available to the Company and are re-evaluated and adjusted as additional information becomes available. Reserves are also determined by using percentages (based upon experience) applied to certain aged receivable categories. Specific issues are discussed with corporate management, and any significant changes in reserve amounts or the write-off of balances must be approved by specifically designated corporate personnel. All approved items are monitored to ensure they are recorded in the proper period. Additionally, any significant changes in reserve balances are reviewed to ensure the proper corporate approval has occurred.

If the financial condition of the Company's customers were to deteriorate, resulting in their inability to make payments, additional allowances may be required. Conversely, an improvement in a customer's ability to make payments could result in a decrease of the allowance for doubtful accounts. Changes in the allowance for doubtful accounts related to both of these situations would be recorded through Operating income (loss) from continuing operations in the period the change was determined. As previously disclosed, during the fourth quarter of 2013, the Company recorded a bad debt reserve of $2.6 million on receivables with a large steel mill customer who filed for protection under the Marzano Law. During the second quarter of 2014, the customer terminated its contract with the Company under the provisions of the Marzano Law. As a result, during the second quarter of 2014, the Company recorded an additional bad debt reserve of $3.9 million on the remaining pre-receivership receivables with this customer. During 2014, the Company recorded a bad debt reserve of $2.6 million for one of its Canadian steel mill customers that filed for receivership protection during the course of the year as the Company has previously disclosed. The amount of the bad debt reserve for this customer represents the full pre-receivership balance. As previously disclosed during 2015, one of the Company's steel mill customers in Europe ceased operations and began a formal process of liquidation in late 2015. The Company had recorded bad debt reserves of approximately $13 million related to this customer during 2015.

The Company has not materially changed the methodology for calculating allowances for doubtful accounts for the years presented. See Note 4, Accounts Receivable and Inventories, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information.

Goodwill

The Company's goodwill balances were $382.3 million and $400.4 million at December 31, 2016 and 2015, respectively. The Company performs the annual goodwill impairment test as of October 1. The Company has five reporting units (only three of which have goodwill associated with them as of December 31, 2016). The Company's reporting units with goodwill are the Harsco Metals & Minerals Segment, the Harsco Rail Segment and the air-cooled heat exchanger business of the Harsco Industrial Segment. Almost all of the Company's goodwill is allocated to the Harsco Metals & Minerals Segment.

Critical Estimate—Goodwill

In accordance with U.S. GAAP, goodwill is not amortized and is tested for impairment at least annually or more frequently if indicators of impairment exist or if a decision is made to dispose of a business. Goodwill is allocated among and evaluated for impairment at the reporting unit level, which is defined as an operating segment or one level below an operating segment for which discrete financial information is available. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include declining cash flows or operating losses at the reporting unit level, a significant adverse change in legal factors or in the business climate, an adverse action or assessment by a regulator, unanticipated competition, a loss of key personnel, or a more likely than not expectation that a reporting unit or a significant portion of a reporting unit will be sold or otherwise disposed of, among others.

The evaluation of potential goodwill impairment involves comparing the current fair value of each reporting unit to the net book value, including goodwill. The Company uses a discounted cash flow model (“DCF model”) to estimate the current fair value of reporting units, as management believes forecasted operating cash flows are the best indicator of current fair value. A number of significant assumptions and estimates are involved in the preparation of DCF models, including future revenues and operating margin growth, the weighted-average cost of capital (“WACC”), tax rates, capital spending, pension funding, the impact of strategic business initiatives, and working capital projections. These assumptions and estimates may vary significantly among reporting units. DCF models are based on approved long-range plans for the early years and historical relationships and projections for later years. WACC rates are derived from internal and external factors including, but not limited to, the average market price of the Company's stock, shares outstanding, book value of the Company's debt, the long-term risk free interest rate, and both market and size-specific risk premiums. Due to the many variables noted above and the relative size of the Company's goodwill, differences in assumptions may have a material impact on the results of the Company's annual goodwill impairment testing. If the net book value of a reporting unit were to exceed the current fair value, the second step of the goodwill impairment test would currently be required to determine if an impairment existed and the amount of goodwill impairment to record, if any. The second step of the goodwill impairment test compares the net book value of a reporting unit's goodwill with the implied fair value of that goodwill. The implied fair value of goodwill represents the excess of fair value of the reporting unit over the fair value amounts assigned to all of the assets and liabilities of the reporting unit if it were to be acquired in a hypothetical business combination, and the current fair value of the reporting unit represented the purchase price. The second step of the goodwill impairment test requires the utilization of valuation experts.

The performance of the Company’s 2016 annual impairment tests did not result in any impairment of the Company’s goodwill.
For the Company's 2016 annual goodwill impairment test, the average annual revenue growth rates over the duration of the DCF models ranged from 1.7% to 4.8%. The WACCs used in the 2016 annual goodwill impairment test ranged from 9.25% to 10.75%.

The Harsco Metals & Minerals Segment reporting unit's fair value at October 1, 2016 was approximately 12% more than the net book value. Significant assumptions utilized in the DCF model include a WACC of 10.75%, an average annual revenue growth rate of 1.7% and average annual cash flow growth rate of 0.6%. Should there be degradation in the overall markets served by the Harsco Metals & Minerals Segment, it may result in an impairment of the Harsco Metal & Minerals Segment goodwill.

It is important to note that fair values that could be realized in an actual transaction, including the Company's announced intention to pursue strategic options for the separation of the Harsco Metals & Minerals Segment from the rest of the Company, could differ materially from those used to evaluate the annual goodwill impairment test. The Company has not materially changed its methodology for goodwill impairment testing for the years presented. See Note 1, Summary of Significant Accounting Policies and Note 7, Goodwill and Other Intangible Assets, in Part II, Item 8, “Financial Statements and Supplementary Data,” for additional information.

Long-lived Asset Impairment
Long-lived assets are reviewed for impairment when events and circumstances indicate that the book value of an asset may be impaired. The amounts charged against pre-tax income from continuing operations related to impaired long-lived assets included in Other expenses on the Consolidated Statements of Operations were $0.4 million, $8.2 million and $39.5 million in 2016, 2015 and 2014 respectively. The decrease in long-lived asset impairments in 2016 was due primarily to a decreased number of site exits in the Harsco Metals & Minerals Segment upon substantial completion of actions associated with Project Orion. The decrease in long-lived asset impairments in 2015 was due primarily to higher long-lived asset impairments in 2014 in the Harsco Metals & Minerals Segment as part of Project Orion.

Critical Estimate—Asset Impairment
The determination of a long-lived asset impairment involves significant judgments based upon short-term and long-term projections of future asset performance. If the undiscounted cash flows associated with an asset (or asset group) do not exceed the asset's book value, impairment loss estimates would be based upon the difference between the book value and fair value of the asset. The fair value is generally based upon the Company's estimate of the amount that the assets could be bought or sold for in a transaction between willing parties. If quoted market prices for the asset or similar assets are unavailable, the fair value estimate is generally calculated using a DCF model. Should circumstances change that affect these estimates, additional impairment charges may be required and would be recorded through income in the period the change was determined.

The Company has not materially changed the methodology for calculating long-lived asset impairments for the years presented. U.S. GAAP requires consideration of all valuation techniques for which market participant inputs can be obtained without undue cost and effort. The use of a DCF model continues to be an appropriate method for determining fair value; however, methodologies such as quoted market prices must also be evaluated. See Note 17, Other Expenses, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information.

Inventories
Inventories are stated at the lower of cost or market. Inventory balances are adjusted for estimated obsolete or unmarketable inventory equal to the difference between the cost of inventory and its estimated market value. At December 31, 2016 and 2015, inventories of $187.7 million and $217.0 million, respectively, are net of lower of cost or market reserves and obsolescence reserves of $10.6 million and $10.8 million, respectively.

Certain contracts within the Harsco Rail Segment, which meet specific criteria established in U.S. GAAP, are accounted for as long-term contracts. Inventories related to these contracts are considered Contracts-in-process and represent a separate component of Inventories. At December 31, 2016 and 2015, Contracts-in-process of $54.0 million and $55.8 million, respectively, were included in Inventories. Contracts-in-process at December 31, 2016 were net of estimated forward loss-provisions related to these contacts of $36.2 million. No estimated forward loss provision was made at December 31, 2015.

Critical Estimate—Inventories
In assessing the realization of inventory balances, the Company is required to make judgments as to future demand and compare these with current or committed inventory levels. If actual market conditions are determined to be less favorable than those projected by management, additional inventory write-downs may be required and would be recorded through Operating income (loss) from continuing operations in the period the determination is made. Additionally, the Company records reserves to adjust a substantial portion of its U.S. inventory balances to the last-in, first-out ("LIFO") method of inventory valuation. In adjusting these reserves throughout the year, the Company estimates its year-end inventory costs and quantities. At December 31 of each year, the reserves are adjusted to reflect actual year-end inventory costs and quantities. During periods of inflation, LIFO expense usually increases and during periods of deflation it decreases. These year-end adjustments resulted in pre-tax income of $1.2 million in 2016, pre-tax expense of $0.1 million in 2015 and pre-tax expense of $1.4 million in 2014.

The Company has not materially changed the methodology for calculating inventory reserves for the years presented. See Note 4, Accounts Receivable and Inventories, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information.

Revenue Recognition - Long-term Contracts

Certain contracts within the Harsco Rail Segment, which meet specific criteria established in U.S. GAAP, are accounted for as long-term contracts, under the percentage-of-completion (units-of-delivery) method of accounting.

Critical Estimate—Revenue Recognition - Long-term Contracts
Accounting for contracts using the percentage-of-completion method requires significant judgment relative to assessing risks, estimating contract revenues and costs (including estimating any liquidating damages or penalties related to performance) and making assumptions for schedule and technical items. Due to the number of years it may take to complete these contracts and the scope and nature of the work required to be performed on those contracts, estimating total sales and costs at completion is inherently complicated and subject to many variables. Accordingly, estimates are subject to change as experience is gained, and as more information is obtained, even though the scope of the work under the contract may not have changed. When adjustments in estimated total contract sales or estimated total costs are required, any changes from prior estimates are recognized in the current period for the inception-to-date effect of such changes. When estimates of total costs to be incurred on a contract using the percentage-of-completion method exceed estimates of total sales to be earned, a provision for the entire loss on the contract is recorded in the period in which the loss is determined.

During 2016, as a result of increased vendor costs, ongoing discussions with SBB, and increased estimates for commissioning, certification and testing costs, as well as expected settlements with SBB, the Company concluded it will have a loss on the contracts with SBB. The Company recognized an estimated forward loss provision related to the SBB contracts of
$45.1 million for the year ended December 31, 2016 in Costs of products sold on the Consolidated Statements of Operations. There was no estimated forward loss provision at December 31, 2015 or 2014. The estimated forward loss provision represents the Company's best estimate based on currently available information. It is possible that the Company's overall estimate of costs to complete these contracts may change which would result in an adjustment to the estimated forward loss provision at such time, but the Company is unable to estimate any further possible loss or range of loss at December 31, 2016.

Insurance Reserves
The Company retains a significant portion of the risk for U.S. workers' compensation, U.K. employers' liability, automobile, general and product liability losses. At December 31, 2016 and 2015, the Company recorded liabilities of $37.1 million and $41.8 million, respectively, related to both asserted and unasserted insurance claims. At December 31, 2016 and 2015,
$3.5 million and $3.4 million, respectively, was included in insurance liabilities related to claims covered by insurance carriers for which a corresponding receivable has been recorded.

Critical Estimate—Insurance Reserves
Insurance reserves have been recorded based upon actuarial calculations that reflect the undiscounted estimated liabilities for ultimate losses, including claims incurred but not reported. Inherent in these estimates are assumptions that are based on the Company's history of claims and losses, a detailed analysis of existing claims with respect to potential value, and current legal and legislative trends. If actual claims differ from those projected by management, changes (either increases or decreases) to insurance reserves may be required and would be recorded through Operating income (loss) from continuing operations in the period the change was determined. During 2016, 2015 and 2014, the Company recorded a retrospective insurance reserve adjustment that decreased pre-tax insurance expense from continuing operations for self-insured programs by $5.4 million,
$8.5 million and $7.0 million, respectively. The Company has programs in place to improve claims experience, such as disciplined claim and insurance litigation management and a focused approach to workplace safety.

The Company has not materially changed the methodology for calculating insurance reserves for the years presented. There are currently no known trends, demands, commitments, events or uncertainties that are reasonably likely to occur that would materially affect the methodology or assumptions described above. See Note 1, Summary of Significant Accounting Policies, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information.

Income Taxes

The Company's income tax expense, deferred tax assets and liabilities and reserves for uncertain tax positions reflect management's best estimate of taxes to be paid. The Company is subject to various international, federal, state and local income taxes in jurisdictions where the Company operates. In determining income tax expense, the Company makes its best estimate of the annual effective income tax rate at the end of each quarter and applies that rate to year-to-date income (loss) before income taxes to arrive at the year-to-date income tax provision (exclusive of loss jurisdictions for which no tax benefit is realizable with any discrete tax items recorded separately). At December 31, 2016, 2015 and 2014, the Company's annual effective income tax rate on income from continuing operations was (8.4)%, 79.5% and 214.8%, respectively.

Critical Estimate—Income Taxes

Annual effective income tax rates are estimated by giving recognition to currently enacted tax rates, tax holidays, tax credits, capital losses, and tax deductions as well as certain exempt income and non-deductible expenses for all jurisdictions where the Company operates. Quarterly income tax provisions incorporate any change in the year-to-date provision from the previous quarterly periods.

The Company records deferred tax assets to the extent the Company believes these assets will more likely than not be realized. In making such determinations, the Company considers all available evidence, including future reversals of existing deferred tax liabilities, projected future taxable income, feasible and prudent tax planning strategies and recent financial operating results. In the event the Company was to determine that it would be able to realize deferred tax assets in the future in excess of their net recorded amount, an adjustment to the valuation allowance would be made that would reduce the provision for income taxes.

Valuation allowances of $146.1 million and $110.7 million at December 31, 2016 and 2015, respectively, related principally to deferred tax assets for U.K. pension liabilities, net operating loss carryforwards, capital losses, currency translation and foreign investment tax credits that are uncertain as to realizability. In 2016, the Company recorded a valuation allowance of $16.1 million related to loss on sale of the Company's equity interest in Brand, $13.5 million related to estimated forward loss provisions related to the SBB contracts, and current year pension adjustments of $19.2 million recorded through Accumulated other comprehensive loss. This was partially offset by the reduction from the effects of foreign currency translation adjustments and the decrease related to U.K. and France tax rate changes. In 2015, the Company recorded a net decrease in the valuation allowance of $16.1 million related to current year pension adjustments recorded through Accumulated other comprehensive loss, the current year decrease from the currency translation in the amount of $11.5 million, and $6.3 million decrease related to a U.K. tax rate change. This was offset by a net increase of $13.2 million related to losses in certain jurisdictions where the Company determined that it is more likely than not that these assets will not be realized.

A tax benefit from an uncertain tax position may be recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on its technical merits. The unrecognized tax benefits at December 31, 2016 and 2015 were $4.6 million and $5.1 million, respectively, excluding accrued interest and penalties. The unrecognized tax benefit may decrease as a result of the lapse of statute of limitations or as a result of final settlement and resolution of outstanding tax matters in various state and international jurisdictions.

The Company has not provided U.S. income taxes on certain non-U.S. subsidiaries' undistributed earnings, as such amounts are permanently reinvested outside the U.S. The Company evaluates future financial projections for its most significant subsidiaries, the need to reinvest earnings locally and the overall cash requirements of the Company. Based upon this evaluation, the Company determined that certain undistributed earnings from non-U.S. subsidiaries are indefinitely reinvested. The Company believes that it can generate sufficient cash flows to avoid the one-time tax costs associated with repatriation of undistributed earnings to the U.S. from prior periods. At December 31, 2016 and 2015, such earnings were approximately $528 million and $547 million, respectively. It is not practical to determine the deferred income tax liability on these earnings if, in the future, they are remitted to the U.S. because the income tax liability to be incurred, if any, is dependent on circumstances existing when remittance occurs.

The Company has not materially changed the methodology for calculating income tax expense, deferred tax assets and liabilities and reserves for uncertain tax positions for the years presented or for quarterly periods. See Note 11, Income Taxes, in Part II, Item 8, "Financial Statements and Supplementary Data," for additional information.

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Research and Development

Internal funding for research and development was as follows:

	Research and Development Expenses		
(In millions)	**2016**	**2015**	**2014**
Harsco Metals & Minerals	**$ 0.9**	$ 0.9	$ 1.4
Harsco Industrial	**1.5**	1.7	1.6
Harsco Rail	**1.9**	1.9	2.5
Total Research and Development	**$ 4.3**	$ 4.5	$ 5.5

The amounts shown exclude technology development and engineering costs classified in cost of services sold; cost of products sold; or selling, general and administrative expenses.

Recently Adopted and Recently Issued Accounting Standards

Information on recently adopted and recently issued accounting standards is included in Note 2, Recently Adopted and Recently Issued Accounting Standards, in Part II, Item 8, "Financial Statements and Supplementary Data."

Dividend Action

The Board normally reviews the dividend policy and the dividend rate on a quarterly basis.

The Company paid one cash dividend of $0.05125 per share in 2016. This dividend was paid on February 16, 2016.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

See Part I, Item 1A, "Risk Factors," for quantitative and qualitative disclosures about market risk.

Item 8. Financial Statements and Supplementary Data.

Index to Consolidated Financial Statements and Supplementary Data

Management's Report on Internal Control Over Financial Reporting

Management of Harsco Corporation, together with its consolidated subsidiaries (the "Company"), is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Securities Exchange Act Rule 13a-15(f) or 15d-15(e). The Company's internal control over financial reporting is a process designed under the supervision of the Company's principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's consolidated financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America.

The Company's internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets of the Company;

- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and the directors of the Company; and

- 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 Company's consolidated 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 and procedures may deteriorate.

Management has assessed the effectiveness of its internal control over financial reporting at December 31, 2016 based on the framework established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has determined that the Company's internal control over financial reporting was effective at December 31, 2016.

The effectiveness of the Company's internal control over financial reporting at December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report appearing in this Annual Report on Form 10-K, which expresses an unqualified opinion on the effectiveness of the Company's internal control over financial reporting at December 31, 2016.

/s/ F. NICHOLAS GRASBERGER, III	/s/ PETER F. MINAN
F. Nicholas Grasberger, III *President and Chief Executive Officer*	Peter F. Minan *Senior Vice President and Chief Financial Officer*
February 24, 2017	February 24, 2017

Report of Independent Registered Public Accounting Firm

To the Stockholders of Harsco Corporation:

In our opinion, the consolidated financial statements, listed in the accompanying index, present fairly, in all material respects, the financial position of Harsco Corporation at December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework* (*2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audit. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for the presentation and classification of certain cash receipts and cash payments in the statement of cash flows due to the adoption of ASU 2016-15, Statement of Cash Flows (Topic 230) in 2016.

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

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

/s/ PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
February 24, 2017

HARSCO CORPORATION
CONSOLIDATED BALANCE SHEETS

(In thousands, except share amounts)	December 31 2016	December 31 2015
ASSETS		
Current assets:		
Cash and cash equivalents	**$ 71,879**	$ 79,756
Trade accounts receivable, net	**236,554**	254,877
Other receivables	**21,053**	30,395
Inventories	**187,681**	216,967
Other current assets	**60,523**	82,527
Total current assets	**577,690**	664,522
Investments	**1,944**	252,609
Property, plant and equipment, net	**490,255**	564,035
Goodwill	**382,251**	400,367
Intangible assets, net	**41,567**	53,043
Other assets	**87,679**	126,621
Total assets	**$ 1,581,386**	$ 2,061,197
LIABILITIES		
Current liabilities:		
Short-term borrowings	**$ 4,259**	$ 30,229
Current maturities of long-term debt	**25,574**	25,084
Accounts payable	**107,954**	136,018
Accrued compensation	**46,658**	38,899
Income taxes payable	**4,301**	4,408
Dividends payable	**—**	4,105
Insurance liabilities	**11,850**	11,420
Advances on contracts and other customer advances	**117,329**	107,250
Due to unconsolidated affiliate	**—**	7,733
Unit adjustment liability	**—**	22,320
Other current liabilities	**110,029**	118,657
Total current liabilities	**427,954**	506,123
Long-term debt	**629,239**	845,621
Deferred income taxes	**2,621**	12,095
Insurance liabilities	**25,265**	30,400
Retirement plan liabilities	**319,597**	241,972
Due to unconsolidated affiliate	**—**	13,674
Unit adjustment liability	**—**	57,614
Other liabilities	**39,147**	42,895
Total liabilities	**1,443,823**	1,750,394
COMMITMENTS AND CONTINGENCIES		
HARSCO CORPORATION STOCKHOLDERS' EQUITY		
Preferred stock, Series A junior participating cumulative preferred stock	**—**	—
Common stock, par value $1.25 (issued 112,499,874 and 112,405,302 shares at December 31, 2016 and 2015, respectively)	**140,625**	140,503
Additional paid-in capital	**172,101**	170,699
Accumulated other comprehensive loss	**(606,722)**	(515,688)
Retained earnings	**1,150,688**	1,236,355
Treasury stock, at cost (32,324,911 and 32,310,937 shares at December 31, 2016 and 2015, respectively)	**(760,391)**	(760,299)
Total Harsco Corporation stockholders' equity	**96,301**	271,570
Noncontrolling interests	**41,262**	39,233
Total equity	**137,563**	310,803
Total liabilities and equity	**$ 1,581,386**	$ 2,061,197

See accompanying notes to consolidated financial statements.

HARSCO CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share amounts)	Years ended December 31 2016	2015	2014
Revenues from continuing operations:			
Service revenues	**$ 939,129**	$ 1,092,725	$ 1,366,246
Product revenues	**512,094**	630,367	700,042
Total revenues	**1,451,223**	1,723,092	2,066,288
Costs and expenses from continuing operations:			
Cost of services sold	**759,120**	909,995	1,149,360
Cost of products sold	**411,343**	446,366	494,510
Selling, general and administrative expenses	**200,391**	242,112	284,737
Research and development expenses	**4,280**	4,510	5,467
Loss on disposal of the Harsco Infrastructure Segment and transaction costs	**—**	1,000	5,103
Other expenses	**12,620**	30,573	57,824
Total costs and expenses	**1,387,754**	1,634,556	1,997,001
Operating income from continuing operations	**63,469**	88,536	69,287
Interest income	**2,475**	1,574	1,702
Interest expense	**(51,584)**	(46,804)	(47,111)
Loss on early extinguishment of debt	**(35,337)**	—	—
Change in fair value to the unit adjustment liability and loss on dilution and sale of equity method investment	**(58,494)**	(8,491)	(9,740)
Income (loss) from continuing operations before income taxes and equity income (loss)	**(79,471)**	34,815	14,138
Income tax expense	**(6,637)**	(27,678)	(30,366)
Equity in income (loss) of unconsolidated entities, net	**5,686**	175	(1,558)
Income (loss) from continuing operations	**(80,422)**	7,312	(17,786)
Discontinued operations:			
Income (loss) on disposal of discontinued business	**1,061**	(1,553)	176
Income tax (expense) benefit related to discontinued business	**(392)**	573	(66)
Income (loss) from discontinued operations	**669**	(980)	110
Net income (loss)	**(79,753)**	6,332	(17,676)
Less: Net income attributable to noncontrolling interests	**(5,914)**	(144)	(4,495)
Net income (loss) attributable to Harsco Corporation	**$ (85,667)**	$ 6,188	$ (22,171)
Amounts attributable to Harsco Corporation common stockholders:			
Income (loss) from continuing operations, net of tax	**$ (86,336)**	$ 7,168	$ (22,281)
Income (loss) from discontinued operations, net of tax	**669**	(980)	110
Net income (loss) attributable to Harsco Corporation common stockholders	**$ (85,667)**	$ 6,188	$ (22,171)
Weighted average shares of common stock outstanding	**80,333**	80,234	80,884
Basic earnings (loss) per share attributable to Harsco Corporation common stockholders:			
Continuing operations	**$ (1.07)**	$ 0.09	$ (0.28)
Discontinued operations	**0.01**	(0.01)	—
Basic earnings (loss) per share attributable to Harsco Corporation common stockholders	**$ (1.07) (a)**	$ 0.08	$ (0.27) **(a)**
Diluted weighted average shares of common stock outstanding	**80,333**	80,365	80,884
Diluted earnings (loss) per share attributable to Harsco Corporation common stockholders:			
Continuing operations	**$ (1.07)**	$ 0.09	$ (0.28)
Discontinued operations	**0.01**	(0.01)	—
Diluted earnings (loss) per share attributable to Harsco Corporation common stockholders	**$ (1.07) (a)**	$ 0.08	$ (0.27) **(a)**

(a) Does not total due to rounding.

See accompanying notes to consolidated financial statements.

HARSCO CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	Years ended December 31		
(In thousands)	**2016**	**2015**	**2014**
Net income (loss)	**$ (79,753)**	$ 6,332	$ (17,676)
Other comprehensive income (loss):			
Foreign currency translation adjustments, net of deferred income taxes of $(13,670), $(2,314) and $7,151 in 2016, 2015 and 2014, respectively	**(21,560)**	(88,255)	(47,695)
Net gain (loss) on cash flow hedging instruments, net of deferred income taxes of $(544), $(975) and $(338) in 2016, 2015 and 2014, respectively	**(682)**	8,617	(1,957)
Pension liability adjustments, net of deferred income taxes of $34, $1,443 and $17,554 in 2016, 2015 and 2014, respectively	**(71,398)**	93,582	(113,596)
Unrealized gain (loss) on marketable securities, net of deferred income taxes of $(16), $10 and $(3) in 2016, 2015 and 2014, respectively	**26**	(16)	5
Total other comprehensive income (loss)	**(93,614)**	13,928	(163,243)
Total comprehensive income (loss)	**(173,367)**	20,260	(180,919)
Less: Comprehensive (income) loss attributable to noncontrolling interests	**(3,334)**	2,496	(2,893)
Comprehensive income (loss) attributable to Harsco Corporation	**$ (176,701)**	$ 22,756	$ (183,812)

See accompanying notes to consolidated financial statements.

HARSCO CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)	Years ended December 31 2016	2015	2014
Cash flows from operating activities:			
Net income (loss)	**$ (79,753)**	$ 6,332	$ (17,676)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation	**129,083**	144,652	164,588
Amortization	**12,403**	11,823	11,738
Change in fair value to the unit adjustment liability and loss on dilution and sale of equity method investment	**58,494**	8,491	9,740
Contract estimated forward loss provision for Harsco Rail Segment	**45,050**	—	—
Loss on early extinguishment of debt	**35,337**	—	—
Deferred income tax expense (benefit)	**(7,654)**	5,174	7,241
Equity in (income) loss of unconsolidated entities, net	**(5,686)**	(175)	1,558
Dividends from unconsolidated entities	**16**	28	—
Loss on disposal of the Harsco Infrastructure Segment	**—**	—	2,911
Other, net	**2,085**	(6,429)	39,376
Changes in assets and liabilities, net of acquisitions and dispositions of businesses:			
Accounts receivable	**16,041**	41,650	6,475
Inventories	**(12,313)**	(44,806)	(20,788)
Accounts payable	**(20,285)**	(401)	(29,416)
Accrued interest payable	**(3,197)**	(2,753)	70
Accrued compensation	**8,865**	(10,319)	5,699
Advances on contracts and other customer advances	**14,485**	(795)	92,769
Retirement plan liabilities, net	**(20,420)**	(24,593)	(27,775)
Harsco 2011/2012 Restructuring Program accrual	**—**	(398)	(2,672)
Other assets and liabilities	**(12,766)**	(5,974)	(17,111)
Net cash provided by operating activities	**159,785**	121,507	226,727
Cash flows from investing activities:			
Purchases of property, plant and equipment	**(69,340)**	(123,552)	(208,859)
Proceeds from the Infrastructure Transaction	**—**	—	15,699
Proceeds from sales of assets	**9,305**	25,966	14,976
Purchase of businesses, net of cash acquired*	**(26)**	(7,788)	(26,336)
Payment of unit adjustment liability	**—**	(22,320)	(22,320)
Proceeds from sale of equity investment	**165,640**	—	—
Other investing activities, net	**17,308**	(2,679)	(2,721)
Net cash provided (used) by investing activities	**122,887**	(130,373)	(229,561)
Cash flows from financing activities:			
Short-term borrowings, net	**(2,350)**	18,875	8,851
Current maturities and long-term debt:			
Additions	**720,727**	427,996	177,499
Reductions	**(979,567)**	(399,533)	(131,007)
Cash dividends paid on common stock	**(4,105)**	(65,730)	(66,322)
Dividends paid to noncontrolling interests	**(1,702)**	(4,498)	(2,186)
Purchase of noncontrolling interests	**(4,731)**	(395)	—
Common stock acquired for treasury	**—**	(12,143)	(941)
Proceeds from cross-currency interest rate swap termination	**16,625**	75,057	—
Deferred pension underfunding payment to unconsolidated affiliate	**(20,640)**	(7,688)	(7,688)
Deferred financing costs	**(16,530)**	(9,487)	—
Net cash provided (used) by financing activities	**(292,273)**	22,454	(21,794)
Effect of exchange rate changes on cash	**1,724**	3,325	(6,134)
Net increase (decrease) in cash and cash equivalents	**(7,877)**	16,913	(30,762)
Cash and cash equivalents at beginning of period	**79,756**	62,843	93,605
Cash and cash equivalents at end of period	**$ 71,879**	$ 79,756	$ 62,843

HARSCO CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

	Years ended December 31		
(In thousands)	**2016**	**2015**	**2014**
***Purchase of businesses, net of cash acquired**			
Working capital	**$ —**	$ (560)	$ (1,107)
Property, plant and equipment	**—**	(72)	(330)
Goodwill	**—**	(3,490)	(6,839)
Intangible Assets	**—**	(4,078)	(17,575)
Other noncurrent assets and liabilities, net	**(26)**	412	(485)
Net cash used to acquire businesses	**$ (26)**	$ (7,788)	$ (26,336)

See accompanying notes to consolidated financial statements.

HARSCO CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In thousands, except share and per share amounts)	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interests	Total
	Issued	Treasury					
Balances, January 1, 2014	$ 140,248	$ (746,237)	$ 159,025	$ 1,372,041	$ (370,615)	$ 43,093	$ 597,555
Net income (loss)				(22,171)		4,495	(17,676)
Cash dividends declared:							
Common @ $0.82 per share				(66,321)			(66,321)
Noncontrolling interests						(2,319)	(2,319)
Total other comprehensive loss, net of deferred income taxes of $24,364					(161,641)	(1,602)	(163,243)
Contributions from noncontrolling interests						1,560	1,560
Noncontrolling interests transferred in the Infrastructure Transaction (See Note 5, Equity Method Investment)						(905)	(905)
Vesting of restricted stock units and other stock grants, net 130,925 shares	196	(714)	2,069				1,551
Treasury shares repurchased, 150,000 shares		(2,864)					(2,864)
Amortization of unearned stock-based, compensation, net of forfeitures			4,572				4,572
Balances, December 31, 2014	140,444	(749,815)	165,666	1,283,549	(532,256)	44,322	351,910
Net income				6,188		144	6,332
Cash dividends declared:							
Common @ $0.666 per share (a)				(53,382)			(53,382)
Noncontrolling interests						(4,498)	(4,498)
Total other comprehensive income (loss), net of deferred income taxes of $(1,836)					16,568	(2,640)	13,928
Contributions from noncontrolling interests						2,100	2,100
Purchase of subsidiary shares from noncontrolling interest			(3)			(395)	(398)
Sale of investment in consolidated subsidiary						200	200
Vesting of restricted stock units and other stock grants, net 31,147 shares	59	(264)	(99)				(304)
Treasury shares repurchased, 596,632 shares		(10,220)					(10,220)
Amortization of unearned stock-based compensation, net of forfeitures			5,135				5,135
Balances, December 31, 2015	140,503	(760,299)	170,699	1,236,355	(515,688)	39,233	310,803
Net income (loss)				(85,667)		5,914	(79,753)
Cash dividends declared:							
Noncontrolling interests						(1,702)	(1,702)
Total other comprehensive loss, net of deferred income taxes of $(14,196)					(91,034)	(2,580)	(93,614)
Purchase of subsidiary shares from noncontrolling interest			(5,128)			397	(4,731)
Vesting of restricted stock units and other stock grants, net 80,598 shares	122	(92)	(1,194)				(1,164)
Amortization of unearned stock-based compensation, net of forfeitures			7,724				7,724
Balances, December 31, 2016	**$ 140,625**	**$ (760,391)**	**$ 172,101**	**$ 1,150,688**	**$ (606,722)**	**$ 41,262**	**$ 137,563**

(a) In November 2015, the Company reduced the quarterly dividend to $0.051 per share.

See accompanying notes to consolidated financial statements.

HARSCO CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Consolidation
The consolidated financial statements include all accounts of Harsco Corporation (the "Company"), all entities in which the Company has a controlling voting interest and variable interest entities required to be consolidated in accordance with generally accepted accounting principles in the U.S. ("U.S. GAAP"). Intercompany accounts and transactions have been eliminated among consolidated entities.

The Company's management has evaluated all activity of the Company and concluded that subsequent events are properly reflected in the Company's consolidated financial statements and notes as required by U.S. GAAP.

Reclassifications
Certain reclassifications have been made to prior year amounts to conform with current year classifications.

Cash and Cash Equivalents
Cash and cash equivalents include cash on hand, demand deposits and short-term investments that are highly liquid in nature and have an original maturity of three months or less.

Inventories
Inventories are stated at the lower of cost or market. Inventories in the U.S. are principally accounted for using the last-in, first-out ("LIFO") method. The Company's remaining inventories are accounted for using the first-in, first-out ("FIFO") or average cost methods. See Note 4, Accounts Receivable and Inventories, for additional information.

Depreciation
Property, plant and equipment is recorded at cost and depreciated over the estimated useful lives of the assets using, principally, the straight-line method. When property, plant and equipment is retired from service, the cost of the retirement is charged to the allowance for depreciation to the extent of the accumulated depreciation and the balance is charged to income. Long-lived assets to be disposed of by sale are not depreciated while they are classified as held-for-sale.

Leases
The Company leases certain property and equipment under noncancelable lease agreements. All lease agreements are evaluated and classified as either an operating or capital lease in accordance with U.S. GAAP. A lease is classified as a capital lease if any of the following criteria are met: transfer of ownership to the Company by the end of the lease term; the lease contains a bargain purchase option; the lease term is equal to or greater than 75% of the asset's economic life; or the present value of future minimum lease payments is equal to or greater than 90% of the asset's fair market value. Operating lease expense is recognized ratably over the lease term, including rent abatement periods and rent holidays. See Note 6, Property, Plant and Equipment, and Note 8, Debt and Credit Agreements, for additional information on capital leases and Note 9, Operating Leases, for additional information on operating leases.

Goodwill and Other Intangible Assets
In accordance with U.S. GAAP, goodwill is not amortized and is tested for impairment annually, or more frequently if indicators of impairment exist, or if a decision is made to dispose of a business. Goodwill is allocated among and evaluated for impairment at the reporting unit level, which is defined as an operating segment or one level below for which discrete financial information is available. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include declining cash flows or operating losses at the reporting unit level, a significant adverse change in legal factors or business climate, an adverse action or assessment by a regulator, unanticipated competition, a loss of key personnel, or a more likely than not expectation that a reporting unit or a significant portion of a reporting unit will be sold or otherwise disposed of, among others.

The Company performs the annual goodwill impairment test as of October 1. The Company has five reporting units, only three of which have goodwill associated with them as of December 31, 2016. Almost all of the Company's goodwill is included in the Harsco Metals & Minerals Segment.

The evaluation of potential goodwill impairment involves comparing the current fair value of each reporting unit to the net book value, including goodwill. The Company uses a discounted cash flow model (“DCF model”) to estimate the current fair value of reporting units, as management believes forecasted operating cash flows are the best indicator of current fair value. A number of significant assumptions and estimates are involved in the preparation of DCF models including future revenues and operating margin growth, the weighted-average cost of capital (“WACC”), tax rates, capital spending, pension funding, the impact of business initiatives, and working capital projections. These assumptions and estimates may vary significantly among reporting units. DCF models are based on approved long-range plans for the early years and historical relationships and projections for later years. WACC rates are derived from internal and external factors including, but not limited to, the average market price of the Company's stock, shares outstanding, book value of the Company's debt, the long-term risk free interest rate, and both market and size-specific risk premiums. Due to the many variables noted above and the relative size of the Company's goodwill, differences in assumptions may have a material impact on the results of the Company's annual goodwill impairment testing. If the net book value of a reporting unit were to exceed the current fair value, the second step of the goodwill impairment test would currently be required to determine if an impairment existed and the amount of goodwill impairment to record, if any. The second step of the goodwill impairment test compares the net book value of a reporting unit's goodwill with the implied fair value of that goodwill. The implied fair value of goodwill represents the excess of fair value of the reporting unit over the fair value amounts assigned to all of the assets and liabilities of the reporting unit if it were to be acquired in a hypothetical business combination and the current fair value of the reporting unit represented the purchase price. As necessary, the Company may use valuation experts to assist with the second step of the goodwill impairment test.

See Note 7, Goodwill and Other Intangible Assets, for additional information.

Impairment of Long-Lived Assets (Other than Goodwill)
Long-lived assets are reviewed for impairment when events and circumstances indicate that the carrying amount of an asset may not be recoverable. Long-lived assets are reviewed for impairment when events and circumstances indicate the book value of an asset may be impaired. The Company's policy is to determine if an impairment loss exists when it is determined that the carrying amount of the asset exceeds the sum of the expected undiscounted future cash flows resulting from use of the asset, and its eventual disposition. Impairment losses are measured as the amount by which the carrying amount of the asset exceeds its fair value, normally as determined in either open market transactions or through the use of a DCF model. Long-lived assets to be disposed of are reported at the lower of the carrying amount or fair value less cost to sell. See Note 17, Other Expenses, for additional information.

Deferred Financing Costs
The Company has incurred debt issuance costs which are recognized as Long-term debt on the Consolidated Balance Sheets. Debt issuance costs are amortized and recognized as interest expense over the contractual term of the related indebtedness or shorter period if appropriate based upon contractual terms. Whenever indebtedness is modified from its original terms, an evaluation is made whether an accounting modification or extinguishment has occurred in order to determine the accounting treatment for debt issuance costs related to the debt modification.

On January 1, 2016, the Company adopted changes issued by the Financial Accounting Standards Board (the "FASB") which required that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct reduction from the carrying amount of that debt liability. See Note 2, Recently Adopted and Recently Issued Accounting Standards for additional information.

Revenue Recognition
Service revenues and product revenues are recognized when they are realized or realizable and when earned. Revenue is realized or realizable and earned when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the Company's price to the buyer is fixed or determinable and collectability is reasonably assured. Service revenues include the service components of the Harsco Metals & Minerals and Harsco Rail Segments. Product revenues include the Harsco Industrial Segment and the product revenues of the Harsco Metals & Minerals and Harsco Rail Segments.

Harsco Metals & Minerals Segment—This Segment provides services predominantly on a long-term, volume-of-production contract basis. Contracts may include both fixed monthly fees as well as variable fees based upon specific services provided to the customer. The fixed-fee portion is recognized periodically as earned (normally monthly) over the contractual period. The variable-fee portion is recognized as services are performed and differs from period to period based upon the actual provision of services. This Segment also sells industrial abrasives and roofing granule products. Product revenues are recognized generally when title and risk of loss transfer, and when all revenue recognition criteria have been met. Title and risk of loss for domestic shipments generally transfer to the customer at the point of shipment. For export sales, title and risk of loss transfer in accordance with the international commercial terms included in the specific customer contract.

Harsco Industrial Segment—This Segment sells industrial grating products, high-security fencing, heat exchangers, and heat transfer products. Product revenues are generally recognized when title and risk of loss transfer, and when all of the revenue recognition criteria have been met. Title and risk of loss for domestic shipments generally transfer to the customer at the point of shipment. For export sales, title and risk of loss transfer in accordance with the international commercial terms included in the specific customer contract or purchase order.

Harsco Rail Segment—This Segment sells railway track maintenance equipment, after-market parts and provides railway track maintenance services. Product revenue is recognized generally when title and risk of loss transfer, and when all of the revenue recognition criteria have been met. Title and risk of loss for domestic shipments generally transfer to the customer at the point of shipment. For export sales, title and risk of loss transfer in accordance with the international commercial terms included in the specific customer contract. Revenue may be recognized subsequent to the transfer of title and risk of loss for certain product sales, if the specific sales contract includes a customer acceptance clause that provides for different timing. In those situations, revenue is recognized after transfer of title and risk of loss and after customer acceptance.

Certain contracts within the Harsco Rail Segment, which meet specific criteria established in U.S. GAAP, are accounted for as long-term contracts. The Company recognizes revenues on two contracts from the federal railway system of Switzerland ("SBB") based on the percentage-of-completion (units-of-delivery) method of accounting, whereby revenues and estimated average costs of the units to be produced under the contracts are recognized as deliveries are made or accepted. Contract revenues and cost estimates are reviewed and revised, at a minimum quarterly, and adjustments are reflected in the accounting period as such amounts are determined. See Note 4, Accounts Receivable and Inventories, for additional information.

Accounting for contracts using the percentage-of-completion method requires judgment relative to assessing risks, estimating contract revenues and costs (including estimating any liquidating damages or penalties related to performance) and making assumptions for schedule and technical items. Due to the number of years it may take to complete these contracts and the scope and nature of the work required to be performed on those contracts, estimating total sales and costs at completion is inherently complicated and subject to many variables and, accordingly estimates are subject to change. When adjustments in estimated total contract sales or estimated total costs are required, any changes from prior estimates are recognized in the current period for the inception-to-date effect of such changes. When estimates of total costs to be incurred on a contract, using the percentage-of-completion method, exceed estimates of total sales to be earned, a provision for the entire loss on the contract is recorded in the period in which the loss is determined.

Services are predominantly on a long-term, time-and-materials contract basis. Revenue is recognized when earned as services are performed within the long-term contracts.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of the events that have been included in the consolidated financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company records deferred tax assets to the extent that the Company believes that these assets will more likely than not be realized. In making such determinations, the Company considers all available positive and negative evidence, including future reversals of existing deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial results. In the event the Company was to determine that it would be able to realize deferred income tax assets in the future in excess of their net recorded amount, an adjustment to the valuation allowance would be made that would reduce the provision for income taxes.

The Company prepares and files tax returns based on interpretation of tax laws and regulations and records its provision for income taxes based on these interpretations. Uncertainties may exist in estimating the Company's tax provisions and in filing tax returns in the many jurisdictions in which the Company operates, and as a result these interpretations may give rise to an uncertain tax position. The tax benefit from an uncertain tax position is recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on its technical merits. Each subsequent period the Company determines if existing or new uncertain tax positions meet a more likely than not recognition threshold and adjust accordingly.

The Company recognizes interest and penalties related to unrecognized tax benefits within Income tax expense in the accompanying Consolidated Statements of Operations. Accrued interest and penalties are included in Other liabilities on the Consolidated Balance Sheets.

In general, it is the practice and the intention of the Company to reinvest the undistributed earnings of its non-U.S. subsidiaries. Should the Company repatriate future earnings, such amounts would become subject to U.S. taxation upon remittance of dividends and under certain other circumstances, thereby giving recognition to current tax expense and to international tax credits.

The significant assumptions and estimates described in the preceding paragraphs are important contributors to the effective tax rate each year.

See Note 11, Income Taxes, for additional information.

Accrued Insurance and Loss Reserves
The Company retains a significant portion of the risk for U.S. workers' compensation, U.K. employers' liability, automobile, general and product liability losses. During 2016, 2015 and 2014, the Company recorded insurance expense from continuing operations related to these lines of coverage of $15.0 million, $13.6 million and $19.1 million, respectively. Reserves have been recorded that reflect the undiscounted estimated liabilities including claims incurred but not reported. When a recognized liability is covered by third-party insurance, the Company records an insurance claim receivable to reflect the covered liability. Changes in the estimates of the reserves are included in net income (loss) in the period determined. During 2016, 2015 and 2014, the Company recorded retrospective insurance reserve adjustments that decreased pre-tax insurance expense from continuing operations for self-insured programs by $5.4 million, $8.5 million and $7.0 million, respectively. At December 31, 2016 and 2015, the Company has recorded liabilities of $37.1 million and $41.8 million, respectively, related to both asserted as well as unasserted insurance claims. Included in the balances at December 31, 2016 and 2015 were $3.5 million and $3.4 million, respectively, of recognized liabilities covered by insurance carriers. Amounts estimated to be paid within one year have been included in current caption, Insurance liabilities, with the remainder included in non-current caption, Insurance liabilities, on the Consolidated Balance Sheets.

Warranties
The Company has recorded product warranty reserves of $6.3 million, $7.8 million and $8.9 million at December 31, 2016, 2015 and 2014, respectively. The Company provides for warranties of certain products as they are sold. The following table summarizes the warranty activity for 2016, 2015 and 2014:

(In thousands)	**2016**	**2015**	**2014**
Warranty reserves, beginning of the year	**$ 7,844**	$ 8,886	$ 9,548
Accruals for warranties issued during the year	**6,439**	3,656	3,208
Reductions related to pre-existing warranties	**(5,611)**	(3,042)	(2,680)
Warranties paid	**(2,372)**	(1,629)	(1,186)
Other (principally foreign currency translation)	**(19)**	(27)	(4)
Warranty reserves, end of the year	**$ 6,281**	$ 7,844	$ 8,886

Warranty expense and payments are incurred principally in the Harsco Industrial and Harsco Rail Segments. Warranty activity may vary from year to year depending upon the mix of revenues and contractual terms related to product warranties.

Foreign Currency Translation
The financial statements of the Company's subsidiaries outside the U.S., except for those subsidiaries located in highly inflationary economies and those entities for which the U.S. dollar is the currency of the primary economic environment in which the entity operates, are measured using the local currency as the functional currency. Assets and liabilities of these subsidiaries are translated at the exchange rates at the balance sheet date. Resulting translation adjustments are recorded in the cumulative translation adjustment account, a separate component of Accumulated other comprehensive loss on the Consolidated Balance Sheets. Income and expense items are translated at average monthly exchange rates. Gains and losses from foreign currency transactions are included in Operating income (loss) from continuing operations. For subsidiaries operating in highly inflationary economies, and those entities for which the U.S. dollar is the currency of the primary economic environment in which the entity operates, gains and losses on foreign currency transactions and balance sheet translation adjustments are included in Operating income (loss) from continuing operations.

Financial Instruments and Hedging
The Company has operations throughout the world that are exposed to fluctuations in related foreign currencies in the normal course of business. The Company seeks to reduce exposure to foreign currency fluctuations through the use of forward exchange contracts. The Company does not hold or issue financial instruments for trading purposes, and it is the Company's policy to prohibit the use of derivatives for speculative purposes. The Company has a Foreign Currency Risk Management Committee that meets periodically to monitor foreign currency risks.

The Company executes foreign currency exchange forward contracts to hedge transactions for firm purchase commitments, to hedge variable cash flows of forecasted transactions and for export sales denominated in foreign currencies. These contracts are generally for 90 days or less; however, where appropriate, longer-term contracts may be utilized. For those contracts that are designated as qualified cash flow hedges, gains or losses are recorded in Accumulated other comprehensive loss on the Consolidated Balance Sheets.

Amounts recorded in Accumulated other comprehensive loss on the Consolidated Balance Sheets are reclassified into operations in the same period or periods during which the hedged forecasted transaction affects income. The cash flows from these contracts are classified consistent with the cash flows from the transaction being hedged (e.g., the cash flows related to contracts to hedge the purchase of fixed assets are included in cash flows from investing activities, etc.). The Company also enters into certain forward exchange contracts that are not designated as hedges. Gains and losses on these contracts are recognized in operations based on changes in fair market value. For fair value hedges of a firm commitment, the gain or loss on the derivative and the offsetting gain or loss on the hedged firm commitment are recognized currently in operations.

See Note 15, Financial Instruments, for additional information.

Earnings Per Share

Basic earnings per share are calculated using the weighted-average shares of common stock outstanding, while diluted earnings per share reflect the dilutive effects of stock-based compensation. Dilutive securities are not included in the computation of loss per share when the Company reports a net loss from continuing operations as the impact would be anti-dilutive. All share and per share amounts are restated for any stock splits and stock dividends that occur prior to the issuance of the financial statements.

See Note 13, Capital Stock, for additional information.

Use of Estimates in the Preparation of Financial Statements

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses. Actual results could differ from those estimates.

2. Recently Adopted and Recently Issued Accounting Standards

The following accounting standards have been adopted in 2016:

On January 1, 2016, the Company adopted changes issued by the FASB related to reporting extraordinary and unusual items. The changes simplified income statement presentation by eliminating the concept of extraordinary items. The changes became effective for the Company on January 1, 2016. The adoption of these changes did not have an impact on the Company's consolidated financial statements.

On January 1, 2016, the Company adopted changes issued by the FASB related to consolidation. The changes updated consolidation analysis and affected reporting entities that are required to evaluate whether they should consolidate certain legal entities. The changes became effective for the Company on January 1, 2016. The adoption of these changes did not have an impact on the Company's consolidated financial statements.

On January 1, 2016, the Company adopted changes issued by the FASB related to simplifying the presentation of debt issuance costs. The changes required that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct reduction from the carrying amount of that debt liability. In August 2015, the FASB added guidance about the presentation and subsequent measurement of debt issuance costs associated with line-of-credit arrangements. The changes became effective for the Company on January 1, 2016. The adoption of these changes resulted in the reclassification of approximately $10 million in deferred financing costs from Other assets to Long-term debt on the Company's consolidated balance sheets for all periods presented. The Company recorded approximately $9 million of additional deferred financing costs, net, during 2016 associated with the Company's debt refinancing. See Note 8, Debt and Credit Agreements, for additional information.

On January 1, 2016, the Company adopted changes issued by the FASB related to the determination of whether a cloud computing arrangement includes a software license. If a cloud computing arrangement is determined to include a software license, then the customer accounts for the software license element consistent with the acquisition of other software licenses. If the arrangement is determined not to contain a software license, the customer should account for the arrangement as a service contract. The changes became effective for the Company on January 1, 2016. The adoption of these changes did not have a material impact on the Company's consolidated financial statements.

On January 1, 2016, the Company adopted changes issued by the FASB simplifying the accounting for measurement period adjustments for business combinations. The changes resulted in an acquirer no longer being required to retrospectively reflect adjustments to provisional amounts during the measurement period as if they were recognized as of the acquisition date. Instead the acquirer would record the effect of the change to the provisional amounts during the measurement period in which the adjustment is identified. The changes also required additional disclosure related to such measurement period adjustments. The changes became effective for the Company on January 1, 2016. The adoption of these changes did not have an impact on the Company's consolidated financial statements; however in the future will have an effect on how the Company reports adjustments to provisional amounts during the measurement period.

In August 2014, the FASB issued changes related to management’s responsibility to evaluate whether there is substantial doubt about an entity’s ability to continue as a going concern and to provide related footnote disclosures. The change became effective for the Company for the annual period ending December 31, 2016. The adoption of this change did not have an impact on the Company's consolidated financial statements.

In August 2016, the FASB issued changes to address eight specific cash flow presentation issues with the objective of reducing diversity in practice. The issues identified include: debt prepayments or extinguishment costs; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies); distributions received from equity method investees; beneficial interests in securitization transactions; and separately identifiable cash flows and application of the predominance principle. During the fourth quarter of 2016, Management early adopted these changes. As a result of the adoption, the only change to the Consolidated statement of cash flows is that all cash costs related to the early extinguishment of the 5.75% Senior Notes due 2018 (the “Notes”) are reflected as financing activities, whereas prior to the adoption, some companies classified such costs as operating activities. The adoption of these changes did not have any impact in the previously issued financial statements.

The following accounting standards have been issued and become effective for the Company at a future date:

In May 2014, the FASB issued changes related to the recognition of revenue from contracts with customers. The changes clarify the principles for recognizing revenue and develop a common revenue standard. The core principle of the changes is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The changes also require additional disclosures related to revenue recognition. In July 2015, the FASB deferred the effective date of these changes by one year, but will permit entities to adopt one year earlier. During 2016, the FASB clarified the implementation guidance for principal versus agent considerations, identifying performance obligations, accounting for intellectual property licenses, collectability, non-cash consideration, the presentation of sales and other similar taxes, introduced practical expedients related to disclosures of remaining performance obligations and other technical corrections and improvements. These changes become effective for the Company on January 1, 2018. Management has not yet finalized its evaluation, but currently believes the most significant impact will be with regard to the timing of revenue recognition associated with the air-cooled heat exchanger product group of the Harsco Industrial Segment and certain equipment sales in the Harsco Rail Segment. The Company currently recognizes revenues on such arrangements upon the completion of the efforts associated with these arrangements, but as a result of these changes, revenue from these arrangements will be recognized over time and increase revenue in earlier periods. Management continues to evaluate the effect of the new standard.

In July 2015, the FASB issued changes related to the simplification of the measurement of inventory. The changes require entities to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which an entity must measure inventory at the lower of cost or market. The changes do not apply to inventories that are measured using either the LIFO method or the retail inventory method. The changes become effective for the Company on January 1, 2017. Management has determined that these changes will not have a material impact on the Company's consolidated financial statements.

In November 2015, the FASB issued changes that require deferred tax assets and liabilities to be classified as noncurrent in a classified statement of financial position. The changes apply to all entities that present a classified statement of financial position. The current requirement that deferred tax assets and liabilities of a tax-paying component of an entity be offset and presented as a single amount is not affected. The changes become effective for the Company on January 1, 2017. Had these changes been adopted, the Company's working capital would have decreased by approximately $27 million and $38 million at December 31, 2016 and December 31, 2015, respectively.

In February 2016, the FASB issued changes in accounting for leases. The changes introduce a lessee model that brings most leases on the balance sheet. The changes also align many of the underlying principles of the new lessor model with those in the FASB’s new revenue recognition standard. Furthermore, the changes address other concerns related to the current leases model such as eliminating the requirement in current guidance for an entity to use bright-line tests in determining lease classification. The changes also require lessors to increase the transparency of their exposure to changes in value of their residual assets and how they manage that exposure. The changes become effective for the Company on January 1, 2019. Management is currently evaluating the impact of these changes on its consolidated financial statements.

In March 2016, the FASB issued changes amending the accounting for stock-based compensation and requiring excess tax benefits and shortfalls to be recognized as a component of income tax expense rather than equity. These changes also require excess tax benefits and shortfalls to be presented as an operating activity on the Consolidated statement of cash flows and allows an entity to make an accounting policy election to either estimate expected forfeitures or to account for them as they occur. These changes are effective for reporting periods beginning after December 15, 2016, with early adoption permitted. The Company will adopt these changes in the first quarter of 2017 by recording the cumulative impact of applying these changes to retained earnings, which will be approximately $1 million, related to the Company electing to not estimate forfeitures on stock compensation plans but rather recognize forfeitures as they occur. The inclusion of excess tax benefits and shortfalls as a component of the Company’s income tax expense will increase volatility within the provision for income taxes as the amount of excess tax benefits or deficiencies from stock-based compensation awards are dependent on the Company's stock price at the date an award vests. Had the Company adopted these changes at the beginning of 2016, income tax expense would not have been materially impacted for 2016.

In October 2016, the FASB issued changes which eliminate the requirement to defer the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. Under the new guidance, an entity should recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The changes become effective for the Company on January 1, 2018 and are to be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Management is currently evaluating the impact of these changes on its consolidated financial statements.

In November 2016, the FASB issued changes that add or clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. The changes become effective for the Company on January 1, 2019 with early adoption permitted. Management has determined that these changes will not have a material impact on the Company's consolidated financial statements.

3. Acquisitions

In January 2014, the Company acquired Hammco Corporation ("Hammco"), a U.S. manufacturer of high specification air-cooled heat exchangers for the natural gas and petrochemical processing markets. Hammco has been included in the results of the Harsco Industrial Segment. In March 2015, the Company acquired Protran Technology ("Protran"), a U.S. designer and producer of safety systems for transportation and industrial applications; and in April 2015, the Company acquired JK Rail Products, LLC ("JK Rail"), a provider of after-market parts for railroad track maintenance. Protran and JK Rail have been included in the results of the Harsco Rail Segment. Inclusion of pro forma financial information for these transactions is not necessary as the acquisitions are immaterial. The purchase price allocations for these acquisitions are final.

4. Accounts Receivable and Inventories

Accounts receivable consist of the following:

(In thousands)	December 31 2016	December 31 2015
Trade accounts receivable	$ 248,354	$ 280,526
Less: Allowance for doubtful accounts	(11,800)	(25,649)
Trade accounts receivable, net	$ 236,554	$ 254,877
Other receivables (a)	$ 21,053	$ 30,395

(a) Other receivables include insurance claim receivables, employee receivables, tax claim receivables and other miscellaneous receivables not included in Trade accounts receivable, net

The decrease in Allowance for doubtful accounts in 2016 is due to the write-off of a previously reserved accounts receivable balances.

The following table reflects the provision for doubtful accounts related to trade accounts receivable for the years ended December 31, 2016, 2015 and 2014:

	Years Ended December 31		
(In thousands)	2016	2015	2014
Provision for doubtful accounts related to trade accounts receivable	$ (38)	$ 13,047	$ 9,892

Inventories consist of the following:

(In thousands)	December 31 2016	December 31 2015
Finished goods	$ 26,464	$ 32,586
Work-in-process	22,815	30,959
Contracts-in-process	54,044	55,786
Raw materials and purchased parts	61,450	70,755
Stores and supplies	22,908	26,881
Total inventories	$ 187,681	$ 216,967
Valued at lower of cost or market:		
LIFO basis	$ 79,933	$ 102,309
FIFO basis	64,742	64,760
Average cost basis	43,006	49,898
Total inventories	$ 187,681	$ 216,967

Inventories valued on the LIFO basis at December 31, 2016 and 2015 were approximately $33 million and $32 million, respectively, less than the amounts of such inventories valued at current costs. During 2016, as a result of reducing certain inventory quantities valued on a LIFO basis, net income (loss) decreased from that which would have been recorded under the FIFO basis of valuation by $1.3 million. During 2015 there was no significant impact on net income (loss) as a result of reducing certain inventory quantities valued on a LIFO basis. During 2014, as a result of reducing certain inventory quantities valued on the LIFO basis, net income (loss) decreased from that which would have been recorded under the FIFO basis of valuation by $0.1 million.

Contracts-in-process consist of the following:

(In thousands)	December 31 2016	December 31 2015
Contract costs accumulated to date	$ 90,276	$ 55,786
Estimated forward loss provisions for contracts-in-process (b)	(36,232)	—
Contracts-in-process (c)	$ 54,044	$ 55,786

(b) To the extent that the estimated forward loss provision exceeds accumulated contract costs it is included in Other current liabilities on the Consolidated Balance Sheets. At December 31, 2016 this amount totaled $6.7 million.

(c) At December 31, 2016 and December 31, 2015, the Company has $101.1 million and $82.7 million, respectively, of customer advances related to contracts-in-process. These amounts are included in Advances on contracts on the Consolidated Balance Sheets.

During 2016, as a result of increased vendor costs, ongoing discussions with SBB, and increased estimates for commissioning, certification and testing costs, as well as expected settlements with SBB, the Company concluded it will have a loss on the contracts with SBB. The Company recognized an estimated forward loss provision related to the SBB contracts of $45.1 million for the year ended December 31, 2016 in Costs of products sold on the Consolidated Statements of Operations. There was no estimated forward loss provision at December 31, 2015 or 2014. The estimated forward loss provision represents the Company's best estimate best on currently available information. It is possible that the Company's overall estimate of costs to complete these contracts may increase which would result in an additional estimated forward loss provision at such time, but the Company is unable to estimate any further possible loss or range of loss at December 31, 2016.

The Company recognized $0.2 million and $1.9 million of revenue for the contracts with SBB for the years ended December 31, 2016 and 2015, respectively, under the percentage-of-completion (units-of-delivery) method. The Company recognized no revenue for the contract with SBB for the year ended December 31, 2014. These revenues did not have a material impact on the Company's gross margins or results of operations for these periods. The Company has not yet recognized any revenue associated with the major equipment deliveries under the contracts with SBB. The majority of the equipment deliveries and related revenue recognition under these contracts are expected in 2017 through 2020.

5. Equity Method Investments

In November 2013, the Company sold the Company's Harsco Infrastructure Segment into a strategic venture with Clayton, Dubilier & Rice ("CD&R") as part of a transaction that combined the Harsco Infrastructure Segment with Brand Energy & Infrastructure Services, Inc., which CD&R simultaneously acquired (the "Infrastructure Transaction"). As a result of the Infrastructure Transaction, the Company retained an equity interest in Brand Energy & Infrastructure Service, Inc. and Subsidiaries ("Brand" or the "Infrastructure strategic venture") which was accounted for as an equity method investment in accordance with U.S. GAAP.

As part of the Infrastructure Transaction, the Company was required to make a quarterly payment to the Company's partner in the Infrastructure strategic venture, either (at the Company's election) (i) in cash, with total payments to equal approximately $22 million per year on a pre-tax basis (approximately $15 million per year after-tax), or (ii) in kind, through the transfer of approximately 3% of the Company's ownership interest in the Infrastructure strategic venture on an annual basis (the "unit adjustment liability"). The Company recognized the change in fair value to the unit adjustment liability each period until the Company was no longer required to make these payments or chose not to make these payments. The change in fair value to the unit adjustment liability was a non-cash expense.

In March 2016, the Company elected not to make the quarterly cash payments to the Company's partner in the Infrastructure strategic venture for the remainder of 2016. Instead, the Company transferred approximately 3% of its ownership interest in satisfaction of the Company's 2016 obligation related to the unit adjustment liability. As a result of not making the quarterly cash payments for 2016, the Company's ownership interest in the Infrastructure strategic venture decreased by approximately 3% and the value of the unit adjustment liability was updated to reflect this change. Accordingly, the book value of the Company's equity method investment in Brand decreased by $29.4 million and the unit adjustment liability decreased by $19.1 million. The resulting net loss of $10.3 million was recognized in Change in fair value to the unit adjustment liability and loss on dilution and sale of equity method investment on the Consolidated Statement of Operations. This net loss was a non-cash expense.

In September 2016, the Company entered into an Omnibus Agreement with CDR Bullseye Holdings, L.P., Bullseye G.P., LLC, Bullseye Partnership, L.P., Bullseye Holdings, L.P. and Brand Energy & Infrastructure Holdings, Inc. (the “Brand Entities”), pursuant to which the Brand Entities repurchased the Company's remaining approximate 26% interest in Brand.

In exchange for the Company's interest, (i) the Company received $145 million in cash, net, and (ii) the requirement for the Company to fund certain obligations to Brand through 2018 were satisfied, the present value of which equaled $20.6 million. In addition, the Company received $1.4 million in accrued but unpaid fees, rent and expenses from the Brand Entities. As a result of the sale, the Company’s obligation to make quarterly payments related to the unit adjustment liability under the terms of a limited partnership agreement that governed the operation of the strategic venture terminated. The Company recognized a loss on the sale of its equity interest in Brand in the amount of $43.5 million which was reflected in Change in fair value to unit adjustment liability and loss on dilution and sale of equity method investment on the Consolidated Statement of Operations.

The Company's equity interest in Brand and book value of the equity investment in Brand at December 31, 2015 were approximately 29% and $250.1 million, respectively. The Company's initial underlying equity in the net assets of Brand, upon consummation of the Infrastructure Transaction, was approximately $225 million. The difference between the initial fair value of the Company's equity method investment in Brand and Company's underlying equity in the net assets of Brand was determined to be equity method goodwill and was not amortized.

The Company's proportionate share of Brand's net income or loss is recorded one quarter in arrears. Brand's summarized balance sheet information at June 30, 2016 and September 30, 2015 and summarized statement of operations information for the period from October 1, 2015 through June 30, 2016, the year ended September 30, 2015 and the period from
November 27, 2013 through September 30, 2014 are summarized as follows:

(In thousands)	June 30 2016	September 30 2015
Summarized Balance Sheet Information of Brand:		
Current assets	$ 896,933	$ 806,510
Property and equipment , net	884,979	894,537
Other noncurrent assets	1,454,951	1,519,722
Total assets	$ 3,236,863	$ 3,220,769
Short-term borrowings, including current portion of long-term debt	$ 14,402	$ 68,687
Other current liabilities	341,979	397,759
Long-term debt	1,857,162	1,736,081
Other noncurrent liabilities	351,714	383,638
Total liabilities	2,565,257	2,586,165
Equity	671,606	634,604
Total liabilities and equity	$ 3,236,863	$ 3,220,769

(In thousands)	Period From October 1, 2015 Through June 30 2016 (a)	Year Ended September 30 2015	Period From November 27 2013 Through September 30 2014 (b)
Summarized Statement of Operations Information of Brand:			
Net revenues	$ 2,333,561	$ 2,976,471	$ 2,559,556
Gross profit	499,005	649,596	559,376
Net income (loss) attributable to Brand Energy & Infrastructure Services, Inc. and Subsidiaries	20,756	605	(4,848)
Harsco's equity in income (loss) of Brand	5,686	175	(1,595)

(a) The Company's equity method investment in Brand was sold in September 2016; accordingly equity income (loss) was recorded for the period from October 1, 2015 through June 30, 2016.
(b) The Company's equity method investment in Brand began on November 26, 2013; accordingly, there is only approximately ten months of related equity income (loss). The results of the Harsco Infrastructure Segment from January 1, 2013 through the date of closing are reported in the Company's results of operations for 2013.

For the years ended 2016, 2015 and 2014, the Company recognized $4.7 million, $8.5 million and $9.7 million, respectively, of change in fair value to the unit adjustment liability, exclusive of the fair value adjustment resulting from the decision not to make the quarterly payments in 2016 and the loss related to the sale of the Company's interest, in Change in fair value to the unit adjustment liability and loss on dilution and sale of equity method investment on the Consolidated Statement of Operations. The Consolidated Balance Sheets as of December 31, 2015 included balances related to the unit adjustment liability of $79.9 million in the current and non-current captions, Unit adjustment liability. As a result of the sale of the Company's equity interest in Brand, there were no remaining balances related to the unit adjustment liability at December 31, 2016. A reconciliation of beginning and ending balances related to the unit adjustment liability is included in Note 15, Financial Instruments.

Balances related to transactions between the Company and Brand are as follows:

(In thousands)	December 31 2016	December 31 2015
Balances due from Brand	$ —	$ 1,557
Balances due to Brand	—	21,407

The balances between the Company and Brand, at December 31, 2015, related primarily to transition services and the funding of certain transferred defined benefit pension plan obligations through 2018. As part of the Omnibus Agreement, all remaining balances between Brand and the Company were settled through payment.

6. Property, Plant and Equipment

Property, plant and equipment consist of the following:

(In thousands)	Estimated Useful Lives	December 31 2016	December 31 2015
Land	—	**$ 10,606**	$ 10,932
Land improvements	5-20 years	**15,032**	15,277
Buildings and improvements (a)	5-40 years	**185,657**	191,356
Machinery and equipment	3-20 years	**1,525,156**	1,661,914
Uncompleted construction	—	**21,035**	36,990
Gross property, plant and equipment		**1,757,486**	1,916,469
Less: Accumulated depreciation		**(1,267,231)**	(1,352,434)
Property, plant and equipment, net		**$ 490,255**	$ 564,035

(a) Buildings and improvements include leasehold improvements that are amortized over the shorter of their useful lives or the initial term of the lease.

Included in the amounts are $8.7 million and $16.0 million of property, plant and equipment under capital leases at December 31, 2016 and 2015, respectively.

7. Goodwill and Other Intangible Assets

Goodwill by Segment

The following table reflects the changes in carrying amounts of goodwill by segment for the years ended December 31, 2016 and 2015:

(In thousands)	Harsco Metals & Minerals Segment	Harsco Industrial Segment	Harsco Rail Segment	Consolidated Totals
Balance at December 31, 2014	$ 400,006	$ 6,839	$ 9,310	$ 416,155
Changes to goodwill	(493)	(33)	3,490 (a)	2,964
Foreign currency translation	(18,752)	—	—	(18,752)
Balance at December 31, 2015	380,761	6,806	12,800	400,367
Changes to goodwill	—	33	226	259
Foreign currency translation	(18,375)	—	—	(18,375)
Balance at December 31, 2016	**$ 362,386**	**$ 6,839**	**$ 13,026**	**$ 382,251**

(a)Changes to goodwill in the Harsco Rail Segment relate to the acquisitions of Protran and JK Rail. See Note 3, Acquisitions, for additional information.

The Company's methodology for determining reporting unit fair value is described in Note 1, Summary of Significant Accounting Policies. Performance of the Company's 2016 annual impairment test did not result in impairment of any of the Company's reporting units.

Intangible Assets

Intangible assets totaled $41.6 million, net of accumulated amortization of $153.5 million at December 31, 2016 and $53.1 million, net of accumulated amortization of $148.7 million at December 31, 2015. The following table reflects these intangible assets by major category:

	December 31, 2016		December 31, 2015	
(In thousands)	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Customer related	**$ 146,840**	**$ 112,610**	$ 153,287	$ 111,227
Patents	**5,729**	**5,534**	5,882	5,495
Technology related	**25,687**	**25,634**	25,559	23,089
Trade names	**8,306**	**4,529**	8,303	4,194
Other	**8,512**	**5,200**	8,701	4,669
Total	**$ 195,074**	**$ 153,507**	$ 201,732	$ 148,674

Amortization expense for intangible assets was $7.9 million, $8.8 million and $9.9 million for 2016, 2015 and 2014, respectively. The following table shows the estimated amortization expense for the next five fiscal years based on current intangible assets.

(In thousands)	2017	2018	2019	2020	2021
Estimated amortization expense (b)	$ 5,000	$ 4,750	$ 4,500	$ 4,250	$ 4,000

(b) These estimated amortization expense amounts do not reflect the potential effect of future foreign currency exchange rate fluctuations.

8. Debt and Credit Agreements

The Company has a multi-year revolving credit facility (the "Revolving Credit Facility") that is available for use throughout the world. The following table illustrates the amount outstanding under the Revolving Credit Facility and available credit at December 31, 2016.

	December 31, 2016			
(In thousands)	Facility Limit	Outstanding Balance	Outstanding Letters of Credit	Available Credit
Revolving Credit Facility (a U.S.-based program)	**$ 400,000**	**$ 98,000**	**$ 43,549**	**$ 258,451**

On December 2, 2015, the Company entered into (i) an amendment and restatement agreement and (ii) a second amended and restated credit agreement (together, the “Financing Agreements”). The Financing Agreements increased the Company's overall borrowing capacity from $500 million to $600 million by (i) amending and restating the Company’s then existing credit agreement, (ii) establishing a term loan A facility in an initial aggregate principal amount of $250 million, by converting a portion of the outstanding balance under the then existing credit agreement on a dollar-for-dollar basis and (iii) reducing the Revolving Credit Facility limit to $350 million.

During September 2016, the Company received approximately $145 million in cash, net, from its sale of its remaining 26% equity interest in the Infrastructure strategic venture. The Company used these proceeds to repay $85.0 million on the term loan A facility and $60.0 million on the Revolving Credit Facility. Related to the repayment of the term loan A facility, the Company expensed $1.1 million of previously deferred financing costs.

In November 2016, the Company entered into a new senior secured credit facility (the “Senior Secured Credit Facility”), consisting of a $400 million Revolving Credit Facility and a $550 million term loan B facility (the "Term Loan Facility"). Upon closing of the Senior Secured Credit Facility, the Company amended and extended the existing Revolving Credit Facility, repaid the existing term loan A facility and redeemed, satisfied and discharged the Notes in accordance with the indenture governing the Notes. As a result, a charge of $35.3 million was recorded during the fourth quarter of 2016 consisting principally of the cost of early extinguishment of the Notes and the write-off of unamortized deferred financing costs associated with the Company’s existing Financing Agreements and the Notes, and is reflected in the financing activities section of the Consolidated Statements of Cash Flows as a reduction of long-term debt.

Borrowings under the Revolving Credit Facility bear interest at a rate per annum ranging from 87.5 to 200 basis points over the base rate or 187.5 to 300 basis points over the adjusted London Interbank Offered Rate ("LIBOR") as defined in the credit agreement governing the Senior Secured Credit Facility (the "Credit Agreement"). Any principal amount outstanding under the Revolving Credit Facility is due and payable on the maturity of the Revolving Credit Facility. The Revolving Credit Facility matures on November 2, 2021. Additionally, upon the completion of the potential sale or separation of the Harsco Metals & Minerals Segment, the Revolving Credit Facility would be reduced, if necessary, to reflect a consolidated net debt to consolidated adjusted EBITDA ratio of 2.5 to 1.0 on a pro-forma basis.

Borrowings under the Term Loan Facility bear interest at a rate per annum ranging from 375 to 400 basis points over the base rate or 475 to 500 basis points over the adjusted LIBOR rate, subject to a 1% floor, as defined in the Credit Agreement. The Term Loan Facility requires scheduled quarterly payments, each equal to 0.25% of the original principal amount of the loans under the Term Loan Facility made on the closing date. These payments are reduced by the application of any prepayments, and any remaining balance is due and payable on the maturity of the Term Loan Facility. The Term Loan Facility matures on November 2, 2023.

The Credit Agreement requires certain mandatory prepayments of the Term Loan Facility, subject to certain exceptions, based on net cash proceeds of certain sales or distributions of assets, as well as certain casualty and condemnation events, in some cases subject to reinvestment rights and certain other exceptions; net cash proceeds of any issuance of debt, excluded permitted debt issuances; and a percentage of excess cash flow, as defined by the Credit Agreement, during a fiscal year.

The Senior Secured Credit Facility imposes certain restrictions including, but not limited to, restrictions as to types and amounts of debt of liens that may be incurred by the Company; limitations on increases in dividend payments and limitations on certain acquisitions by the Company.

With respect to the Senior Secured Facility, the obligations of the Company are guaranteed by substantially all of the Company's current and future wholly-owned domestic subsidiaries ("Guarantors"). All obligations under the Senior Credit Facility, and the guarantees of those obligations, are secured, subject to certain exceptions, by substantially all of the Company's assets and the assets of the Guarantors.

In January 2017, the Company entered into a series of fixed-floating interest rate swaps that cover the period from 2018 through 2021, and had the effect of converting $300 million of the Term Loan Facility from floating-rate to fixed-rate. The fixed rates provided by the swaps replace the adjusted LIBOR rate in the interest calculation, range from 1.65% for 2018 to 2.71% for 2021.

At December 31, 2016, the Company had $648.0 million of borrowings under the Senior Secured Credit Facility consisting of $550.0 million under the Term Loan Facility and $98.0 million under the Revolving Credit Facility. At December 31, 2016, of these balances $642.5 million was classified as Long-term debt and $5.5 million was classified as Current maturities of long-term debt on the Consolidated Balance Sheets. At December 31, 2015, the Company had $415.0 million of borrowings under the Financing Agreements consisting of $250.0 million under the term loan A facility and $165.0 million under the Revolving Credit Facility. At December 31, 2015, of these balances $380.5 million was classified as Long-term debt, $22.0 million was classified as Short-term borrowings and $12.5 million was classified as Current maturities of long-term debt on the Consolidated Balance Sheets.

Short-term borrowings amounted to $4.3 million and $30.2 million at December 31, 2016 and 2015, respectively. At December 31, 2016, Short-term borrowings consist primarily of bank overdrafts. At December 31, 2015, Short-term borrowings consist primarily of $22.0 million of Revolving Credit Facility borrowings and bank overdrafts. The weighted-average interest rate for short-term borrowings at December 31, 2016 and 2015 was 6.2% and 4.3%, respectively.

Long-term debt consists of the following:

(In thousands)	December 31 2016	December 31 2015
5.75% notes due May 15, 2018	$ —	$ 449,005
Senior Secured Credit Facilities:		
Term Loan A Facility with an interest rate of 2.9% at December 31, 2015	—	250,000
Term Loan B Facility with an interest rate of 6.0% at December 31, 2016	**550,000**	
Revolving Credit Facility with an average interest rate of 3.6% and 3.2% at December 31, 2016 and 2015, respectively	**98,000**	143,000
Other financing payable (including capital leases) in varying amounts due principally through 2017 with a weighted-average interest rate of 5.7% and 5.6% at December 31, 2016 and 2015, respectively	**25,410**	38,830
Total debt obligations	**673,410**	880,835
Less: deferred financing costs	**(18,597)**	(10,130)
Total debt obligations, net of deferred financing costs	**654,813**	870,705
Less: current maturities of long-term debt	**(25,574)**	(25,084)
Long-term debt	**$ 629,239**	**$ 845,621**

The maturities of long-term debt for the four years following December 31, 2017 are as follows:

(In thousands)	
2018	$ 9,924
2019	6,217
2020	5,664
2021	103,531

Cash payments for interest on debt were $49.6 million, $44.4 million and $44.2 million in 2016, 2015 and 2014, respectively.

The Credit Agreement contains a consolidated net debt to consolidated adjusted earnings before interest, tax, depreciation and amortization ("EBITDA") ratio covenant, which is not to exceed 4.0 to 1.0, and a minimum consolidated adjusted EBITDA to consolidated interest charges ratio covenant, which is not to be less than 3.0 to 1.0. The consolidated net debt to consolidated adjusted EBITDA ratio covenant is reduced to 3.75 to 1.0 after December 31, 2016 and to 3.5 to 1.0 after December 31, 2017. At December 31, 2016, the Company was in compliance with these and all other covenants.

9. Operating Leases

The Company leases certain property and equipment under noncancelable operating leases. Rental expense under such operating leases was $16.9 million, $18.9 million and $19.7 million in 2016, 2015 and 2014, respectively.

Future minimum payments under operating leases with noncancelable terms are as follows:

(In thousands)	
2017	$ 12,482
2018	9,187
2019	7,429
2020	6,434
2021	5,040
After 2021	16,932

Total minimum rentals to be received in the future under noncancelable subleases at December 31, 2016 are $1.1 million.

10. Employee Benefit Plans

Pension Benefits

The Company has defined benefit pension plans covering a substantial number of employees. The defined benefits for salaried employees generally are based on years of service and the employee's level of compensation during specified periods of employment. Defined benefit pension plans covering hourly employees generally provide benefits of stated amounts for each year of service. The multiemployer pension plans ("MEPPs"), in which the Company participates, provide benefits to certain unionized employees. The Company's funding policy for qualified plans is consistent with statutory regulations and customarily equals the amount deducted for income tax purposes. Periodic voluntary contributions are made, as recommended, by the Company's Pension Committee. The Company's policy is to amortize prior service costs of defined benefit pension plans over the average future service period of active plan participants.

For most U.S. defined benefit pension plans and a majority of international defined benefit pension plans, accrued service is no longer granted. In place of these plans, the Company has established defined contribution plans providing for the Company to contribute a specified matching amount for participating employees' contributions to the plan. For U.S. employees, this match is made on employee contributions up to 4% of eligible compensation. Additionally, the Company may provide a discretionary contribution for eligible employees. There have been no discretionary contributions provided for the years 2016, 2015 and 2014. For non-U.S. employees, this match is up to 6% of eligible compensation with an additional 2% going towards insurance and administrative costs.

Net periodic pension cost ("NPPC") for U.S. and international plans for 2016, 2015 and 2014 is as follows:

	U.S. Plans			International Plans		
(In thousands)	**2016**	**2015**	**2014**	**2016**	**2015**	**2014**
Defined benefit pension plans:						
Service cost	**$ 3,783**	$ 2,889	$ 2,233	**$ 1,585**	$ 1,648	$ 1,610
Interest cost	**10,165**	12,357	12,868	**26,822**	36,282	43,230
Expected return on plan assets	**(14,402)**	(16,812)	(16,786)	**(42,979)**	(50,091)	(49,927)
Recognized prior service costs	**63**	81	90	**189**	188	184
Recognized losses	**5,493**	4,919	3,352	**12,002**	16,875	14,102
Settlement/curtailment loss (gain)	**276**	—	—	**79**	(23)	60
Defined benefit pension plan cost (income)	**5,378**	3,434	1,757	**(2,302)**	4,879	9,259
Multiemployer pension plans	**636**	853	1,199	**1,368**	1,463	1,762
Defined contribution plans	**3,833**	3,921	4,704	**5,807**	6,765	8,033
Net periodic pension cost	**$ 9,847**	$ 8,208	$ 7,660	**$ 4,873**	$ 13,107	$ 19,054

The change in the financial status of the defined benefit pension plans and amounts recognized on the Consolidated Balance Sheets at December 31, 2016 and 2015 are as follows:

	U.S. Plans		International Plans	
(In thousands)	**2016**	**2015**	**2016**	**2015**
Change in benefit obligation:				
Benefit obligation at beginning of year	**$ 307,390**	$ 325,319	**$ 900,104**	$ 1,049,603
Service cost	**3,783**	2,889	**1,585**	1,648
Interest cost	**10,165**	12,357	**26,822**	36,282
Plan participants' contributions	**—**	—	**68**	61
Amendments	**—**	—	**—**	47
Actuarial (gain) loss	**5,223**	(14,417)	**194,469**	(85,028)
Settlements/curtailments	**—**	—	**(1,527)**	(250)
Benefits paid	**(20,909)**	(18,758)	**(32,079)**	(38,197)
Effect of foreign currency	**—**	—	**(137,082)**	(64,062)
Benefit obligation at end of year	**$ 305,652**	$ 307,390	**$ 952,360**	$ 900,104
Change in plan assets:				
Fair value of plan assets at beginning of year	**$ 208,870**	$ 233,350	**$ 755,966**	$ 791,045
Actual return on plan assets	**15,289**	(8,011)	**105,027**	22,602
Employer contributions	**2,021**	2,289	**17,192**	27,402
Plan participants' contributions	**—**	—	**68**	61
Settlements/curtailments	**—**	—	**(1,527)**	(250)
Benefits paid	**(20,909)**	(18,758)	**(31,485)**	(37,693)
Effect of foreign currency	**—**	—	**(112,498)**	(47,201)
Fair value of plan assets at end of year	**$ 205,271**	$ 208,870	**$ 732,743**	$ 755,966
Funded status at end of year	**$ (100,381)**	$ (98,520)	**$ (219,617)**	$ (144,138)

Amounts recognized on the Consolidated Balance Sheets for defined benefit pension plans consist of the following at December 31, 2016 and 2015:

	U.S. Plans December 31		International Plans December 31	
(In thousands)	**2016**	**2015**	**2016**	**2015**
Noncurrent assets	**$ 668**	$ 229	**$ 1,118**	$ 1,229
Current liabilities	**2,278**	2,072	**505**	479
Noncurrent liabilities	**98,771**	96,678	**220,230**	144,888
Accumulated other comprehensive loss before tax	**161,075**	162,571	**434,868**	376,641

Amounts recognized in Accumulated other comprehensive loss, before tax, for defined benefit pension plans consist of the following at December 31, 2016 and 2015:

	U.S. Plans		International Plans	
(In thousands)	**2016**	**2015**	**2016**	**2015**
Net actuarial loss	**$ 161,042**	$ 162,475	**$ 433,626**	$ 375,725
Prior service cost	**33**	96	**1,242**	916
Total	**$ 161,075**	$ 162,571	**$ 434,868**	$ 376,641

The estimated amounts that will be amortized from Accumulated other comprehensive loss into defined benefit pension plan NPPC in 2017 are as follows:

(In thousands)	**U.S. Plans**	**International Plans**
Net actuarial loss	$ 5,701	$ 15,627
Prior service cost	33	175
Total	$ 5,734	$ 15,802

The Company's estimate of expected contributions to be paid in 2017 for the U.S. and international defined benefit plans are $6.3 million and $16.6 million, respectively.

Future Benefit Payments
The expected benefit payments for defined benefit pension plans over the next ten years are as follows:

(In millions)	2017	2018	2019	2020	2021	2022-2026
U.S. Plans	$ 19.8	$ 19.3	$ 19.0	$ 19.0	$ 19.0	$ 95.0
International Plans	32.7	33.6	34.5	35.9	37.4	203.2

Net Periodic Pension Cost and Defined Benefit Pension Obligation Assumptions
The weighted-average actuarial assumptions used to determine the defined benefit pension plan NPPC for 2016, 2015 and 2014 were as follows:

	U.S. Plans December 31			International Plans December 31			Global Weighted-Average December 31		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Discount rates	**4.2%**	3.9%	4.7%	**3.8%**	3.7%	4.7%	**3.9%**	3.7%	4.7%
Expected long-term rates of return on plan assets	**7.3%**	7.5%	7.5%	**6.5%**	6.8%	6.8%	**6.7%**	7.0%	7.0%
Rates of compensation increase	**3.0%**	3.0%	3.0%	**3.2%**	3.2%	3.4%	**3.2%**	3.2%	3.4%

The expected long-term rates of return on defined benefit pension plan assets for the 2017 NPPC are 7.3% for the U.S. plans and 5.9% for the international plans. The expected global long-term rate of return on assets for 2017 is 6.2%.

The weighted-average actuarial assumptions used to determine the defined benefit pension plan obligations at December 31, 2016 and 2015 were as follows:

	U.S. Plans December 31		International Plans December 31		Global Weighted-Average December 31	
	2016	2015	2016	2015	2016	2015
Discount rates	**4.0%**	4.2%	**2.8%**	3.8%	**3.1%**	3.9%
Rates of compensation increase	**—%**	3.0%	**3.3%**	3.2%	**3.3%**	3.2%

The U.S. discount rate was determined using a yield curve that was produced from a universe containing approximately 700 U.S. dollar-denominated, AA-graded corporate bonds, all of which were noncallable (or callable with make-whole provisions), and excluding the10% of the bonds with the highest yields and the 10% with the lowest yields within each maturity group. The discount rate was then developed as the level-equivalent rate that would produce the same present value as that using spot rates to discount the projected benefit payments. For international plans, the discount rate is aligned to corporate bond yields in the local markets, normally AA-rated corporations. The process and selection seeks to approximate the cash inflows with the timing and amounts of the expected benefit payments.

The Company changed the method utilized to estimate the service cost and interest cost components of NPPC for defined benefit pension plans for 2016 and later. The more precise application of discount rates for measuring both service costs and interest costs employs yield curve spot rates on a year-by-year expected cash flow basis, using the same yield curves that the Company has previously used. This change in method represents a change in accounting estimate and has been accounted for in the period of change. This change in method decreased the Company's NPPC by approximately $7 million for 2016, compared to what NPPC would have been under the prior method.

Accumulated Benefit Obligation
The accumulated benefit obligation for all defined benefit pension plans at December 31, 2016 and 2015 was as follows:

	U.S. Plans December 31		International Plans December 31	
(In millions)	2016	2015	2016	2015
Accumulated benefit obligation	**$ 305.7**	$ 307.4	**$ 946.3**	$ 894.8

Defined Benefit Pension Plans with Accumulated Benefit Obligation in Excess of Plan Assets

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for defined benefit pension plans with accumulated benefit obligations in excess of plan assets at December 31, 2016 and 2015 were as follows:

	U.S. Plans December 31		International Plans December 31	
(In millions)	2016	2015	2016	2015
Projected benefit obligation	**$ 296.7**	$ 297.5	**$ 913.0**	$ 876.9
Accumulated benefit obligation	**296.7**	297.5	**910.0**	871.9
Fair value of plan assets	**195.6**	198.8	**694.9**	731.6

The asset allocations attributable to the Company's U.S. defined benefit pension plans at December 31, 2016 and 2015, and the long-term target allocation of plan assets, by asset category, are as follows:

		Percentage of Plan Assets December 31	
U.S. Plans Asset Category	Target Long-Term Allocation	2016	2015
Domestic equity securities	33%-43%	**39.7%**	37.2%
International equity securities	14%-24%	**18.5%**	18.5%
Fixed income securities	28%-38%	**30.9%**	32.6%
Cash and cash equivalents	Less than 5%	**1.0%**	1.7%
Other (a)	5%-15%	**9.9%**	10.0%

(a) Investments within this caption include diversified global asset allocation funds.

Defined benefit pension plan assets are allocated among various categories of equities, fixed income securities and cash and cash equivalents with professional investment managers whose performance is actively monitored. The primary investment objective is long-term growth of assets in order to meet present and future benefit obligations. The Company periodically conducts an asset/liability modeling study and accordingly adjusts investments among and within asset categories to ensure the long-term investment strategy is aligned with the profile of benefit obligations.

The Company reviews the long-term expected return on asset assumption on a periodic basis taking into account a variety of factors including the historical investment returns achieved over a long-term period, the targeted allocation of plan assets and future expectations based on a model of asset returns for an actively managed portfolio. The model simulates 1,000 different capital market results over 20 years. For both 2017 and 2016, the expected return-on-asset assumption for U.S. defined benefit pension plans was 7.3%.

The U.S. defined benefit pension plans' assets include 450,000 shares of the Company's common stock at both December 31, 2016 and 2015, valued at $6.1 million and $3.5 million, respectively. These shares represented 3.0% and 1.7% of total U.S. plan assets at December 31, 2016 and 2015, respectively. There was less than $0.1 million of dividends paid to the U.S. defined benefit pension plan on the Company's common stock during 2016. Dividends paid to the U.S. defined benefit pension plan on the Company's common stock amounted to $0.4 million in 2015.

The asset allocations attributable to the Company's international defined benefit pension plans at December 31, 2016 and 2015 and the long-term target allocation of plan assets, by asset category, are as follows:

		Percentage of Plan Assets December 31	
International Plans Asset Category	Target Long-Term Allocation	2016	2015
Equity securities	32.5%	**37.1%**	33.7%
Fixed income securities	42.5%	**43.9%**	43.3%
Cash and cash equivalents	—	**0.3%**	0.3%
Other (b)	25.0%	**18.7%**	22.7%

(b) Investments within this caption include diversified growth funds, real estate funds and infrastructure funds.

International defined benefit pension plan assets at December 31, 2016 in the U.K. defined benefit pension plan amounted to approximately 94% of the international defined benefit pension plan assets. The U.K. plan assets are allocated among various categories of equities, fixed income securities and cash and cash equivalents with professional investment managers whose performance is actively monitored. The primary investment objective is long-term growth of assets in order to meet present and future benefit obligations. The Company periodically conducts asset/liability modeling studies and accordingly adjusts investment amounts within asset categories to ensure the long-term investment strategy is aligned with the profile of benefit obligations.

For the international long-term rate of return assumption, the Company considered the current level of expected returns in risk-free investments (primarily government bonds); the historical level of the risk premium associated with other asset classes in which the portfolio is invested; and the expectations for future returns of each asset class and plan expenses. The expected return for each asset class was then weighted based on the target asset allocation to develop the expected long-term rate of return on assets. The 2017 and 2016, the expected return on asset assumption for the U.K. plan was 5.8% and 6.6%, respectively. The remaining international defined benefit pension plans, with plant assets representing approximately 6% of the international defined benefit pension plan assets, are under the guidance of professional investment managers and have similar investment objectives.

The fair values of the Company's U.S. defined benefit pension plans' assets at December 31, 2016 by asset class are as follows:

(In thousands)	Total	Level 1	Level 2
Domestic equities:			
Common stocks	**$ 27,339**	**$ 27,339**	**$ —**
Mutual funds—equities	**54,102**	**9,928**	**44,174**
International equities—mutual funds	**37,948**	**37,948**	**—**
Fixed income investments:			
U.S. Treasuries and collateralized securities	**14,240**	**—**	**14,240**
Corporate bonds and notes	**11,457**	**11,457**	**—**
Mutual funds—bonds	**37,745**	**11,927**	**25,818**
Other—mutual funds	**20,346**	**20,346**	**—**
Cash and money market accounts	**2,094**	**2,094**	**—**
Total	**$ 205,271**	**$ 121,039**	**$ 84,232**

The fair values of the Company's U.S. defined benefit pension plans' assets at December 31, 2015 by asset class are as follows:

(In thousands)	Total	Level 1	Level 2
Domestic equities:			
Common stocks	$ 35,619	$ 35,619	$ —
Mutual funds—equities	42,093	11,595	30,498
International equities—mutual funds	38,787	38,787	—
Fixed income investments:			
U.S. Treasuries and collateralized securities	15,506	—	15,506
Corporate bonds and notes	12,987	12,987	—
Mutual funds—bonds	39,594	12,094	27,500
Other—mutual funds	20,803	20,803	—
Cash and money market accounts	3,481	3,481	—
Total	$ 208,870	$ 135,366	$ 73,504

The fair values of the Company's international defined benefit pension plans' assets at December 31, 2016 by asset class are as follows:

(In thousands)	Total	Level 1	Level 2	Level 3
Equity securities:				
Mutual funds—equities	**$ 272,070**	**$ —**	**$ 272,070**	**$ —**
Fixed income investments:				
Mutual funds—bonds	**314,098**	**—**	**314,098**	**—**
Insurance contracts	**7,657**	**—**	**7,657**	**—**
Other:				
Real estate funds/limited partnerships	**23,714**	**—**	**23,714**	**—**
Other mutual funds	**113,345**	**—**	**113,345**	**—**
Cash and money market accounts	**1,859**	**1,859**	**—**	**—**
Total	**$ 732,743**	**$ 1,859**	**$ 730,884**	**$ —**

The fair values of the Company's international defined benefit pension plans' assets at December 31, 2015 by asset class are as follows:

(In thousands)	Total	Level 1	Level 2	Level 3
Equity securities:				
Mutual funds—equities	$ 255,937	$ —	$ 255,937	$ —
Fixed income investments:				
Mutual funds—bonds	320,259	—	320,259	—
Insurance contracts	7,306	—	7,306	—
Other:				
Real estate funds / limited partnerships	52,313	—	27,951	24,362
Other mutual funds	117,646	—	117,646	—
Cash and money market accounts	2,505	2,505	—	—
Total	$ 755,966	$ 2,505	$ 729,099	$ 24,362

The following table summarizes changes in the fair value of Level 3 assets in international defined benefit pension plans for 2016, 2015 and 2014:

Level 3 Asset Changes for the Twelve Months Ended December 31

(In thousands)	2016	2015	2014
Real Estate Limited Partnership:			
Balance at beginning of year	**$ 24,362**	$ 22,647	$ 20,423
Contributions to partnership	**—**	109	385
Cash distributions received	**—**	(10,062)	(1,614)
Actual return related to plan assets	**(2,387)**	11,668	3,453
Liquidation of investment	**(21,975)**	—	—
Balance at end of year	**$ —**	$ 24,362	$ 22,647

Following is a description of the valuation methodologies used for the defined benefit pension plans' investments measured at fair value:

- Level 1 Fair Value Measurements—Investments in interest-bearing cash are stated at cost, which approximates fair value. The fair values of money market accounts and certain mutual funds are based on quoted net asset values of the shares held by the plan at year-end. The fair values of domestic and international stocks and corporate bonds, notes and convertible debentures are valued at the closing price reported in the active market on which the individual securities are traded.
- Level 2 Fair Value Measurements—The fair values of investments in mutual funds for which quoted net asset values in an active market are not available are valued by the investment advisor based on the current market values of the underlying assets of the mutual fund based on information reported by the investment consistent with audited financial statements of the mutual fund. Further information concerning these mutual funds may be obtained from their separate audited financial statements. Investments in U.S. Treasury notes and collateralized securities are valued based on yields currently available on comparable securities of issuers with similar credit ratings.
- Level 3 Fair Value Measurements—Real estate limited partnership interests are valued by the general partners based on the underlying assets. The limited partnership interests are valued using unobservable inputs and have been classified within Level 3 of the fair value hierarchy.

Multiemployer Pension Plans

The Company, through the Harsco Metals & Minerals Segment, contributes to several MEPPs under the terms of collective-bargaining agreements that cover union-represented employees, many of whom are temporary in nature. The Company's total contributions to MEPPs were $2.0 million, $2.5 million and $3.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.

11. Income Taxes

Income (loss) from continuing operations before income taxes and equity income (loss) as reported on the Consolidated Statements of Operations consists of the following:

(In thousands)	2016	2015	2014
U.S.	$ (99,939)	$ 16,169	$ 22,951
International	20,468	18,646	(8,813)
Total income (loss) from continuing operations before income taxes and equity income (loss)	$ (79,471)	$ 34,815	$ 14,138

Income tax expense as reported on the Consolidated Statements of Operations consists of the following:

(In thousands)	2016	2015	2014
Income tax expense (benefit):			
Currently payable:			
U.S. federal	$ (4,088)	$ 408	$ 5,622
U.S. state	365	546	557
International	18,014	23,095	14,569
Total income taxes currently payable	14,291	24,049	20,748
Deferred U.S. federal	(8,195)	2,651	3,447
Deferred U.S. state	2,238	812	893
Deferred international	(1,697)	166	5,278
Total income tax expense	$ 6,637	$ 27,678	$ 30,366

Cash payments for income taxes were $14.6 million, $18.9 million and $36.0 million for 2016, 2015 and 2014, respectively.

A reconciliation of the normal expected statutory U.S. federal income tax expense (benefit) to the actual income tax expense as reported on the Consolidated Statements of Operations is as follows:

(In thousands)	2016	2015	2014
U.S. federal income tax	$ (27,815)	$ 12,185	$ 4,949
U.S. state income taxes, net of federal income tax benefit	(355)	496	713
U.S. domestic manufacturing deductions and credits	(661)	(2,504)	(1,882)
Capital loss on sale of equity interest in Brand with no realizable tax benefit	16,106	—	—
Difference in effective tax rates on international earnings and remittances	2,006	5,095	4,397
Uncertain tax position contingencies and settlements	(1,886)	1,416	(5,298)
Changes in realization on beginning of the year deferred tax assets	1,978	923	2,283
Forward Loss Provisions in SBB Contract with no realizable tax benefits	15,768	—	—
Restructuring and impairment charges with no realizable tax benefits	—	8,508	21,969
U.S. non-deductible expenses	724	874	1,216
(Income) loss related to the Infrastructure Transaction	(644)	580	2,592
Cumulative effect of change in statutory tax rates/laws	(388)	340	246
Income (loss) from unconsolidated entities	2,098	62	(587)
Other, net	(294)	(297)	(232)
Total income tax expense	$ 6,637	$ 27,678	$ 30,366

At December 31, 2016, 2015 and 2014, the Company's annual effective income tax rate on income from continuing operations was (8.4)%, 79.5% and 214.8%, respectively.

The Company’s international income from continuing operations before income taxes and equity income (loss) was $20.5 million and $18.6 million for the years ended December 31, 2016 and 2015, respectively. This includes the estimated forward loss provision related to the SBB contracts of $45.1 million in 2016 and non-recurring impairment charges of $24.3 million in 2015, on which no tax benefit was recognized because the losses occurred in entities where it is not more likely than not that the tax benefit will be realized. The Company’s differences in effective tax rates on international earnings and remittances for 2016 and 2015 was $2.0 million and $5.1 million, respectively. This decrease is primarily due to the change in the mix of earnings between jurisdictions. The above factors together with the non-recurring expiration of statute of limitations for uncertain tax positions in certain jurisdictions and the realization on beginning of year deferred tax assets in 2016 decreased the Company’s total international income tax expense, including discrete items, from $23.3 million in 2015 to $16.3 million in 2016.

The Company's loss from continuing operations before income taxes and equity income (loss) attributable to the U.S. was $99.9 million for the year ended December 31, 2016 compared to income from continuing operations before income taxes and equity (loss) attributable to the U.S. of $16.2 million for the year ended December 31, 2015. The loss in 2016 is due principally to the capital loss on the sale of the Company’s equity interest in Brand and the loss on early extinguishment of debt. A valuation allowance of $16.1 million was established for the deferred tax asset resulting from the capital loss on the sale of the Company's equity interest in Brand, because it is not more likely than not that the benefit will be realized in the future. However, the net operating loss created by the loss on early extinguishment of debt will be realized through a carryback to prior years with taxable income. The Company expects to have taxable income in future periods in the U.S.

The tax effects of the temporary differences giving rise to the Company's deferred tax assets and liabilities at December 31, 2016 and 2015 are as follows:

	2016		2015	
(In thousands)	**Asset**	**Liability**	**Asset**	**Liability**
Depreciation and amortization	**$ —**	**$ 10,089**	$ —	$ 11,474
Expense accruals	**23,300**	**—**	24,538	—
Inventories	**6,611**	**—**	5,588	—
Provision for receivables	**1,015**	**—**	1,049	—
Deferred revenue	**—**	**1,852**	—	1,904
Operating loss carryforwards	**80,178**	**—**	77,151	—
Foreign tax credit carryforwards	**26,347**	**—**	19,199	—
Capital loss carryforwards	**18,163**	**—**	2,102	—
Pensions	**74,506**	**—**	66,675	—
Currency adjustments	**17,597**	**—**	28,589	—
Equity investment in Infrastructure strategic venture	**—**	**—**	—	10,688
Unit adjustment liability	**—**	**—**	29,491	—
Post-retirement benefits	**760**	**—**	869	—
Stock based compensation	**5,812**	**—**	4,790	—
Other	**7,206**	**—**	3,656	—
Subtotal	**261,495**	**11,941**	263,697	24,066
Valuation allowance	**(146,097)**	**—**	(110,680)	—
Total deferred income taxes	**$ 115,398**	**$ 11,941**	$ 153,017	$ 24,066

The deferred tax asset and liability balances recognized on the Consolidated Balance Sheets at December 31, 2016 and 2015 are as follows:

(In thousands)	**2016**	**2015**
Other current assets	**$ 27,415**	$ 38,899
Other assets	**78,944**	102,914
Other current liabilities	**281**	767
Deferred income taxes	**2,621**	12,095

At December 31, 2016, the tax-effected amount of net operating loss carryforwards ("NOLs") totaled $80.2 million. Tax-effected NOLs from international operations are $68.6 million. Of that amount, $56.7 million can be carried forward indefinitely, and $11.9 million will expire at various times between 2017 and 2032. Tax-effected U.S. state NOLs are $11.6 million. Of that amount, $1.4 million expire at various times between 2017 and 2020, $3.6 million expire at various times between 2021 and 2025, $3.3 million expire at various times between 2026 and 2030, and $3.3 million expire at various times between 2031 and 2036. At December 31, 2016, the tax-effected amount of capital loss carryforwards totaled $18.2 million which expire between 2018 and 2021.

The valuation allowances of $146.1 million and $110.7 million at December 31, 2016 and 2015, respectively, related principally to deferred tax assets for pension liabilities, NOLs, capital losses, foreign currency translation and foreign investment tax credits that are uncertain as to realizability. In 2016, the Company recorded a valuation allowance of
$16.1 million related to capital loss on sale of the Company's equity interest in Brand, $13.5 million related to estimated forward loss provisions related to the SBB contracts, and current year pension adjustments of $19.2 million recorded through Accumulated other comprehensive loss. This was partially offset by the reduction from the effects of foreign currency translation adjustments and the decrease related to U.K. and France tax rate changes. In 2015, the Company recorded a net decrease in the valuation allowance of $16.1 million related to pension adjustments recorded through Accumulated other comprehensive loss, the decrease from foreign currency translation in the amount of $11.5 million and a $6.3 million decrease related to a U.K. tax rate change. This was partially offset by a net increase of $13.2 million related to losses in certain jurisdictions where the Company determined that it is more likely than not that these assets will not be realized.

The Company has not provided U.S. income taxes on certain non-U.S. subsidiaries' undistributed earnings as such amounts are indefinitely reinvested outside the U.S. At December 31, 2016 and 2015, such earnings were approximately $528 million and $547 million, respectively. It is not practical to determine the deferred income tax liability on these earnings if, in the future, they are remitted to the U.S. because the income tax liability to be incurred, if any, is dependent on circumstances existing when remittance occurs.

The Company recognizes accrued interest and penalty expense related to unrecognized income tax benefits in income tax expense. During 2016 and 2014, the Company recognized an income tax benefit of $1.7 million and $2.1 million, respectively, for interest and penalties primarily due to the expiration of statutes of limitation and resolution of examinations. The Company did not recognize any income tax benefit for interest and penalties during 2015. The Company has accrued $1.1 million,
$2.8 million and $2.8 million for the payment of interest and penalties at December 31, 2016, 2015 and 2014 respectively.

A reconciliation of the change in the unrecognized income tax benefits balance from January 1, 2014 to December 31, 2016 is as follows:

(In thousands)	**Unrecognized Income Tax Benefits**	**Deferred Income Tax Benefits**	**Unrecognized Income Tax Benefits, Net of Deferred Income Tax Benefits**
Balances, January 1, 2014	$ 17,549	$ (198)	$ 17,351
Additions for tax positions related to the current year (includes currency translation adjustment)	288	(2)	286
Additions for tax positions related to prior years (includes currency translation adjustment)	156	(55)	101
Other reductions for tax positions related to prior years	(3,056)	—	(3,056)
Statutes of limitation expirations	(2,481)	143	(2,338)
Balance at December 31, 2014	12,456	(112)	12,344
Additions for tax positions related to the current year (includes currency translation adjustment)	(483)	(2)	(485)
Additions for tax positions related to prior years (includes currency translation adjustment)	1,249	(4)	1,245
Other reductions for tax positions related to prior years	(7,846)	—	(7,846)
Statutes of limitation expirations	(173)	59	(114)
Settlements	(42)	15	(27)
Balance at December 31, 2015	5,161	(44)	5,117
Additions for tax positions related to the current year (includes currency translation adjustment)	744	(1)	743
Additions for tax positions related to prior years (includes currency translation adjustment)	358	(14)	344
Other reductions for tax positions related to prior years	(837)	—	(837)
Statutes of limitation expirations	(817)	27	(790)
Settlements	(27)	2	(25)
Total unrecognized income tax benefits that, if recognized, would impact the effective income tax rate at December 31, 2016	**$ 4,582**	**$ (30)**	**$ 4,552**

Included in the other reductions for tax positions related to prior year for 2015 is $7.8 million resulting from the adjustment by a foreign tax authority as a result of tax audit. The unrecognized tax benefit was related to a net operating loss carryforward that carried a full valuation allowance. As a result, the related deferred tax asset was decreased by the same amount.

Within the next twelve months, it is reasonably possible that up to $0.9 million of unrecognized income tax benefits will be recognized upon settlement of tax examinations and the expiration of various statutes of limitations.

The Company files income tax returns as prescribed by the tax laws of the jurisdictions in which it operates. With few exceptions, the Company is no longer subject to U.S and international income tax examinations by tax authorities through 2010.

12. Commitments and Contingencies

Environmental
The Company is involved in a number of environmental remediation investigations and cleanups and, along with other companies, has been identified as a "potentially responsible party" for certain waste disposal sites. While each of these matters is subject to various uncertainties, it is probable that the Company will agree to make payments toward funding certain of these activities and it is possible that some of these matters will be decided unfavorably to the Company. The Company has evaluated its potential liability, and its financial exposure is dependent upon such factors as the continuing evolution of environmental laws and regulatory requirements, the availability and application of technology, the allocation of cost among potentially responsible parties, the years of remedial activity required and the remediation methods selected. The Company did not have any material accruals or record any material expenses related to environmental matters during the periods presented.

The Company evaluates its liability for future environmental remediation costs on a quarterly basis. Although actual costs to be incurred at identified sites in future periods may vary from the estimates (given inherent uncertainties in evaluating environmental exposures), the Company does not expect that any costs that are reasonably possible to be incurred by the Company in connection with environmental matters in excess of the amounts accrued would have a material adverse effect on the Company's financial condition, results of operations or cash flows.

Brazilian Tax Disputes
The Company is involved in a number of tax disputes with federal, state and municipal tax authorities in Brazil. These disputes are at various stages of the legal process, including the administrative review phase and the collection action phase, and include assessments of fixed amounts of principal and penalties, plus interest charges that increase at statutorily determined amounts per month and are assessed on the aggregate amount of the principal and penalties. In addition, the losing party at the collection action or court of appeals phase could be subject to a charge to cover statutorily mandated legal fees, which are generally calculated as a percentage of the total assessed amounts due, inclusive of penalty and interest. A large number of the claims relate to value-added ("ICMS"), services and social security tax disputes. The largest proportion of the assessed amounts relate to ICMS claims filed by the State Revenue Authorities from the State of São Paulo, Brazil (the "SPRA"), encompassing the period from January 2002 to May 2005.

In October 2009, the Company received notification of the SPRA's final administrative decision regarding the levying of ICMS in the State of São Paulo in relation to services provided to a customer in the State between January 2004 and May 2005. As of December 31, 2016, the principal amount of the tax assessment from the SPRA with regard to this case is approximately $2 million, with penalty, interest and fees assessed to date increasing such amount by an additional $23 million. Any change in the aggregate amount since the Company's last Annual Report on Form 10-K, as revised on Form 8-K filed on June 1, 2015, is due to an increase in assessed interest and statutorily mandated legal fees for the year, as well as foreign currency translation.

Another ICMS tax case involving the SPRA refers to the tax period from January 2002 to December 2003, and is still pending at the administrative phase, where the aggregate amount assessed by the tax authorities in August 2005 was $7.8 million (the amounts with regard to this claim are valued as of the date of the assessment since it has not yet reached the collection phase), composed of a principal amount of $1.8 million, with penalty and interest assessed through that date increasing such amount by an additional $5.9 million. All such amounts include the effect of foreign currency translation.

The Company continues to believe that it is not probable it will incur a loss for these assessments by the SPRA. The Company also continues to believe that sufficient coverage for these claims exists as a result of the Company's customer's indemnification obligations and such customer's pledge of assets in connection with the October 2009 notice, as required by Brazilian law.

The Company intends to continue its practice of vigorously defending itself against these tax claims under various alternatives, including judicial appeal. The Company will continue to evaluate its potential liability with regard to these claims on a quarterly basis; however, it is not possible to predict the ultimate outcome of these tax-related disputes in Brazil. No loss provision has been recorded in the Company's consolidated financial statements for the disputes described above because the loss contingency is not deemed probable, and the Company does not expect that any costs that are reasonably possible to be incurred by the Company in connection with Brazilian tax disputes would have a material adverse effect on the Company's financial condition, results of operations or cash flows.

Brazilian Labor Disputes
The Company is subject to collective bargaining and individual labor claims in Brazil through the Harsco Metals & Minerals Segment which allege, among other things, the Company's failure to pay required amounts for overtime and vacation at certain sites. The Company is vigorously defending itself against these claims; however, litigation is inherently unpredictable, particularly in foreign jurisdictions. While the Company does not currently expect that the ultimate resolution of these claims will have a material adverse effect on the Company's financial condition, results of operations or cash flows, it is not possible to predict the ultimate outcome of these labor-related disputes.

The Company is continuing to review all known labor claims and as of December 31, 2016 and 2015, the Company has established reserves of $7.9 million and $6.9 million, respectively, on the Consolidated Balance Sheets for amounts considered to be probable and estimable. As the Company continues to evaluate these claims and takes actions to address them, the amount of established reserves may be impacted.

Customer Disputes
The Company, through its Harsco Metals & Minerals Segment, may, in the normal course of business, become involved in commercial disputes with subcontractors or customers.

During the first quarter of 2015, a rail grinder manufactured by the Company's Harsco Rail Segment and operated by a subcontractor caught fire, causing a customer to incur monetary damages. Depending on the cause of the fire and the extent of insurance coverage, the Company's results of operations and cash flows may be impacted in future periods.

Although results of operations and cash flows for a given period could be adversely affected by a negative outcome in these or other lawsuits, claims or proceedings, management believes that the ultimate outcome of these matters will not have a material adverse effect on the Company's financial condition, results of operations or cash flows.

Lima Refinery Litigation
On April 8, 2016, Lima Refining Company filed a lawsuit against the Company in the District Court of Harris County, Texas related to a January 2015 explosion at an oil refinery operated by Lima Refining Company. The action seeks approximately more than $106 million in property damages and approximately $289 million in lost profits and business interruption damages. The action alleges the explosion occurred because of a defect in a heat exchange cooler manufactured by Hammco in 2009, prior to the Company's acquisition of Hammco in 2014. The Company is vigorously contesting the allegations against it both as to liability for the accident and the amount of the claimed damages. As a result, the Company believes the situation will not result in a probable loss. The Company has both an indemnity right from the sellers of Hammco and liability insurance coverage under various primary and excess policies that the Company believes will be available, if necessary, to cover substantially all of any such liability that might ultimately be incurred in the above action.

U.K. Health and Safety Executive Matter
In the third quarter of 2016, a subsidiary in the Company's Harsco Metals & Minerals Segment, along with one of its customers, was named as a co-defendant in an action brought by the U.K. Health and Safety Executive in the U.K. Crown Court Sitting at Kingston-Upon Hull. The action relates to a fatal accident involving one of the customer's employees in 2010. The action seeks to levy a fine against the Company. The Company believes that it is not responsible for the accident and is defending the action vigorously. A loss provision related to this action has not been recorded in the Company's consolidated financial statements, because the Company believes that a loss is not probable. However, if the outcome of the proceedings is unfavorable, the Company does not believe that it would have a material adverse effect on the Company's financial condition, result of operations or cash flows.

Other
The Company is named as one of many defendants (approximately 90 or more in most cases) in legal actions in the U.S. alleging personal injury from exposure to airborne asbestos over the past several decades. In their suits, the plaintiffs have named as defendants, among others, many manufacturers, distributors and installers of numerous types of equipment or products that allegedly contained asbestos.

The Company believes that the claims against it are without merit. The Company has never been a producer, manufacturer or processor of asbestos fibers. Any asbestos-containing part of a Company product used in the past was purchased from a supplier and the asbestos encapsulated in other materials such that airborne exposure, if it occurred, was not harmful and is not associated with the types of injuries alleged in the pending actions.

At December 31, 2016, there were 17,090 pending asbestos personal injury actions filed against the Company. Of those actions, 16,757 were filed in the New York Supreme Court (New York County), 111 were filed in other New York State Supreme Court Counties and 222 were filed in courts located in other states.

The complaints in most of those actions generally follow a form that contains a standard damages demand of $20 million or $25 million, regardless of the individual plaintiff's alleged medical condition, and without identifying any specific Company product.

At December 31, 2016, 16,742 of the actions filed in New York Supreme Court (New York County) were on the Deferred/Inactive Docket created by the court in December 2002 for all pending and future asbestos actions filed by persons who cannot demonstrate that they have a malignant condition or discernible physical impairment. The remaining 15 cases in New York County are pending on the Active or In Extremis Docket created for plaintiffs who can demonstrate a malignant condition or physical impairment.

The Company has liability insurance coverage under various primary and excess policies that the Company believes will be available, if necessary, to substantially cover any liability that might ultimately be incurred in the asbestos actions referred to above. The Company believes that a substantial portion of the costs and expenses of the asbestos actions will be paid by the Company's insurers.

In view of the persistence of asbestos litigation in the U.S., the Company expects to continue to receive additional claims in the future. The Company intends to continue its practice of vigorously defending these claims and cases. At December 31, 2016, the Company has obtained dismissal in 27,903 cases by stipulation or summary judgment prior to trial.

It is not possible to predict the ultimate outcome of asbestos-related actions in the U.S. due to the unpredictable nature of this litigation, and no loss provision has been recorded in the Company's consolidated financial statements because a loss contingency is not deemed probable or estimable. Despite this uncertainty, and although results of operations and cash flows for a given period could be adversely affected by asbestos-related actions, the Company does not expect that any costs that are reasonably possible to be incurred by the Company in connection with asbestos litigation would have a material adverse effect on the Company's financial condition, results of operations or cash flows.

The Company is subject to various other claims and legal proceedings covering a wide range of matters that arose in the ordinary course of business. In the opinion of management, all such matters are adequately covered by insurance or by established reserves, and, if not so covered, are without merit or are of such kind, or involve such amounts, as would not have a material adverse effect on the financial position, results of operations or cash flows of the Company.

Insurance liabilities are recorded when it is probable that a liability has been incurred for a particular event and the amount of loss associated with the event can be reasonably estimated. Insurance reserves have been estimated based primarily upon actuarial calculations and reflect the undiscounted estimated liabilities for ultimate losses, including claims incurred but not reported. Inherent in these estimates are assumptions that are based on the Company's history of claims and losses, a detailed analysis of existing claims with respect to potential value, and current legal and legislative trends. If actual claims differ from those projected by management, changes (either increases or decreases) to insurance reserves may be required and would be recorded through income in the period the change was determined. When a recognized liability is covered by third-party insurance, the Company records an insurance claim receivable to reflect the covered liability. Insurance claim receivables are included in Other receivables on the Consolidated Balance Sheets. See Note 1, Summary of Significant Accounting Policies, for additional information.

13. Capital Stock

The authorized capital stock of the Company consists of 150,000,000 shares of common stock and 4,000,000 shares of preferred stock, both having a par value of $1.25 per share. The preferred stock is issuable in series with terms as fixed by the Board of Directors (the "Board"). No preferred stock has been issued. Under the Company's Preferred Stock Purchase Rights Agreement (the "Agreement"), the Board authorized and declared a dividend distribution of one right for each share of common stock outstanding on the record date. The rights may only be exercised if, among other things and with certain exceptions, a person or group has acquired 15% or more of the Company's common stock without the prior approval of the Board. Each right entitles the holder to purchase 1/100th share of Harsco Series A Junior Participating Cumulative Preferred Stock at an exercise price of $230. Once the rights become exercisable, the holder of a right will be entitled, upon payment of the exercise price, to purchase a number of shares of common stock calculated to have a value of two times the exercise price of the right. The rights expire on October 9, 2017, do not have voting power, and may be redeemed by the Company at a price of $0.001 per right at any time until the 10th business day following public announcement that a person or group has accumulated 15% or more of the Company's common stock. The Agreement also includes an exchange feature. At December 31, 2016 and 2015, 801,750 and 800,944 shares, respectively, of $1.25 par value preferred stock were reserved for issuance upon exercise of the rights.

The Company's share repurchase program expired on January 31, 2015. The Board had previously authorized the repurchase of shares of common stock as follows:

	Shares Authorized for Purchase January 1	Shares Purchased	Plan Expiration	Shares Authorized for Purchase December 31
2014	2,000,000	150,000	—	1,850,000
2015	1,850,000	596,632	1,253,368	—

The following table summarizes the Company's common stock:

	Shares Issued	Treasury Shares (a)	Outstanding Shares
Outstanding, January 1, 2014	112,198,693	31,519,768	80,678,925
Issuance of vested restricted stock units	65,851	4,418	61,433
Stock appreciation rights exercised	9,213	2,985	6,228
Other stock grants	83,591	20,327	63,264
Treasury shares purchased	—	150,000	(150,000)
Outstanding, December 31, 2014	112,357,348	31,697,498	80,659,850
Issuance of vested restricted stock units	47,954	16,807	31,147
Treasury shares purchased	—	596,632	(596,632)
Outstanding, December 31, 2015	112,405,302	32,310,937	80,094,365
Issuance of vested restricted stock units	94,572	13,974	80,598
Outstanding, December 31, 2016	**112,499,874**	**32,324,911**	**80,174,963**

(a) The Company repurchases shares in connection with the issuance of shares under stock-based compensation programs and in accordance with Board authorized share repurchase programs.

The following is a reconciliation of the average shares of common stock used to compute basic earnings per common share to the shares used to compute diluted earnings per common share as shown on the Consolidated Statements of Operations:

(In thousands, except per share data)	**2016**	**2015**	**2014**
Income (loss) from continuing operations attributable to Harsco Corporation common stockholders	**$ (86,336)**	$ 7,168	$ (22,281)
Weighted-average shares outstanding—basic	**80,333**	80,234	80,884
Dilutive effect of stock-based compensation	**—**	131	—
Weighted-average shares outstanding—diluted	**80,333**	80,365	80,884
Income (loss) from continuing operations per common share, attributable to Harsco Corporation common stockholders:			
Basic	**$ (1.07)**	$ 0.09	$ (0.28)
Diluted	**$ (1.07)**	$ 0.09	$ (0.28)

The following average outstanding stock-based compensation units were not included in the computation of diluted earnings per share because the effect was antidilutive:

(In thousands)	**2016**	**2015**	**2014**
Restricted stock units	**810**	—	301
Stock options	**89**	98	188
Stock appreciation rights	**1,458**	1,142	912
Performance share units	**684**	278	—

14. Stock-Based Compensation

The 2013 Equity and Incentive Compensation Plan (the "2013 Plan") authorizes the issuance of up to 6,800,000 shares of the Company's common stock for use in paying incentive compensation awards in the form of stock options or other equity awards such as restricted stock, restricted stock units ("RSUs"), stock appreciation rights ("SARs"), or performance share units ("PSUs"). Of the 6,800,000 shares authorized, a maximum of 3,400,000 shares may be issued for awards other than option rights or SARs, as defined in the 2013 Plan. The 2016 Non-Employee Directors' Long-Term Equity Compensation Plan (the "2016 Plan") authorizes the issuance of up to 400,000 shares of the Company's common stock for equity awards. Both plans have been approved by the Company's stockholders. At December 31, 2016, there were 3,651,413 shares available for granting equity awards under the 2013 Plan, of which 1,779,549 shares were available for awards other than option rights or SARs. At December 31, 2016, there were 290,002 shares available for granting equity awards under the 2016 Plan.

Restricted Stock Units

The Company's Board approves the granting of performance-based RSUs as the long-term equity component of director, officer and certain key employee compensation. The RSUs require no payment from the recipient and compensation cost is measured based on the market price of the Company's common stock on the grant date and is generally recorded over the vesting period. RSUs granted to officers and certain key employees in 2012, and prior, vested on a pro-rata basis over a three-year period or upon obtainment of specified retirement criteria. RSUs granted to officers and certain key employees in 2013, either "cliff" vest at the end of three years or upon obtainment of specified retirement criteria. RSUs granted to officers and certain key employees in 2014 and 2015, either "cliff" vest at the end of three years, upon obtainment of specified retirement or years of service criteria. RSUs granted to officers and certain key employees in 2016 either vest on a pro-rata basis over three years or upon obtainment of specified retirement or years of service criteria. Upon vesting, each RSU is exchanged for an equal number of shares of the Company's common stock. The vesting period for RSUs granted to non-employee directors is one year, and each RSU is exchanged for an equal number of shares of the Company's common stock following the termination of the participant's service as a director. RSUs do not have an option for cash payment.

The following table summarizes RSUs issued and the compensation expense recorded for the years ended December 31, 2016, 2015 and 2014:

(Dollars in thousands, except per unit)	RSUs (a)	Weighted Average Fair Value	Expense 2016	Expense 2015	Expense 2014
Directors:					
2013	46,287	$ 20.60	**$ —**	$ —	$ 318
2014	36,840	$ 24.80	**—**	311	602
2015	59,985	$ 15.69	**314**	627	—
2016	109,998	$ 7.00	**513**	—	—
Employees:					
2011	17,250	$ 23.55	**—**	—	3
2012	141,486	$ 18.75	**—**	(71) (b)	151
2013	170,582	$ 20.63	**66**	87	325
2014	190,832	$ 25.21	**669**	504	1,114
2015	239,679	$ 16.53	**880**	919	—
2016	536,773	$ 7.09	**995**	—	—
Total			**$ 3,437**	$ 2,377	$ 2,513

(a) Represents number of awards originally issued.
(b) Represents the impact of forfeitures during 2015.

RSU activity for the year ended December 31, 2016 was as follows:

	Number of Shares	Weighted Average Grant-Date Fair Value
Non-vested at December 31, 2015	438,358	$ 19.12
Granted	646,771	$ 7.08
Vested	(102,256)	$ 17.65
Forfeited	(55,791)	$ 13.90
Non-vested at December 31, 2016	**927,082**	**$ 11.19**

At December 31, 2016, the total unrecognized compensation cost related to non-vested RSUs was $4.0 million, which will be recognized over a weighted-average period of 1.8 years. There was a $1.1 million decrease in excess tax benefits from RSUs recognized in 2016. There was no change in excess tax benefits from RSUs recognized in 2015 and 2014.

Stock Appreciation Rights

The Company may grant SARs to officers and certain key employees under the 2013 Plan. The SARs generally vest on a pro-rata basis from one to five years from the grant date or upon specified retirement or years of service criteria, and expire no later than ten years after the grant date. The exercise price of the SARs is the fair value on the grant date. Upon exercise, shares of Company's common stock are issued based on the increase in the fair value of the Company's common stock over the exercise price of the SAR. SARs do not have an option for cash payment.

During 2014, the Company issued SARs covering 51,900 shares in April, 255,090 shares in May, 31,405 shares in July, 84,290 shares in August, 15,808 shares in September and 12,401 shares in November under the 2013 Plan. During 2015, the Company issued SARs covering 532,615 shares in May under the 2013 Plan. During 2016, the Company issued SARS covering 554,719 shares in May, and 21,686 shares in November under the 2013 Plan.

The fair value of each SAR grant was estimated on the grant date using a Black-Scholes pricing model with the following assumptions:

	Risk-free Interest rate	Dividend Yield	Expected Life (Years)	Volatility	SAR Grant Price	Fair Value of SAR
May 2013 Grant	1.17%	3.61%	6.5	44.1%	$ 22.70	$ 6.86
June 2013 Grant	1.41%	3.56%	6.5	44.1%	$ 23.03	$ 7.07
November 2013 Grant	1.91%	3.13%	6.5	43.8%	$ 26.22	$ 8.60
April 2014 Grant	1.98%	3.53%	6.0	44.3%	$ 23.25	$ 7.25
May 2014 Grant (1st)	1.90%	3.16%	6.0	43.2%	$ 25.93	$ 8.16
May 2014 Grant (2nd)	1.82%	3.05%	6.0	42.8%	$ 26.92	$ 8.47
July 2014 Grant	2.00%	3.24%	6.0	41.2%	$ 25.27	$ 7.55
August 2014 Grant	1.92%	3.27%	6.0	41.2%	$ 25.11	$ 7.46
September 2014 Grant	2.03%	3.50%	6.0	40.6%	$ 23.43	$ 6.72
November 2014 Grant	1.78%	4.00%	6.0	38.6%	$ 20.48	$ 5.17
May 2015 Grant	1.70%	4.96%	6.0	35.8%	$ 16.53	$ 3.39
May 2016 Grant	1.39%	—%	6.0	42.1%	$ 7.00	$ 2.93
November 2016 Grant	1.74%	—%	6.0	43.8%	$ 12.25	$ 5.38

SARs activity for the years ended December 31, 2016 was as follows:

	Number of Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions) (c)
Outstanding, December 31, 2015	1,100,410	$ 20.55	$ —
Granted	576,405	$ 7.20	
Forfeited/Expired	(140,942)	$ 17.58	
Outstanding, December 31, 2016	**1,535,873**	**$ 15.81**	**$ 3.4**

(c) Intrinsic value is defined as the difference between the current market value and the exercise price, for those SARs where the market price exceeds the exercise price.

No SARs were exercised in 2016 and 2015. The total intrinsic value of SARs exercised in 2014 was $0.2 million.

The following table summarizes information concerning outstanding and exercisable SARs at December 31, 2016:

	SARs Outstanding				SARs Exercisable	
Range of exercisable prices	Vested	Non-vested	Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Life in Years	Number Exercisable	Weighted-Average Exercise Price per Share
$7.00 - $12.25	—	538,862	$ 7.21	9.36	—	$ —
$16.53 - $22.70	274,632	414,447	$ 18.44	7.56	274,632	$ 18.53
$23.03 - $26.92	246,717	61,215	$ 25.00	7.41	246,717	$ 25.18
	521,349	1,014,524	$ 15.81	7.81	521,349	$ 21.68

Total compensation expense related to SARs was $1.7 million, $1.2 million and $1.0 million for the years ended December 31, 2016, 2015 and 2014, respectively. At December 31, 2016, outstanding SARs have a weighted-average remaining contractual life of 7.81 years and $3.4 million of intrinsic value. Vested and currently exercisable SARs have a weighted-average remaining contractual life of 7.50 years and no aggregate intrinsic value as the exercise price for all vested and exercisable

SARs exceeds the current market value. At December 31, 2016, total unrecognized compensation expense related to non-vested SARs was $2.5 million, which is expected to be recognized over a weighted average period of 1.7 years.

Weighted-average grant date fair value of non-vested SARs for the years ended December 31, 2016 was as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Non-vested shares, December 31, 2015	852,099	$ 5.04
Granted	576,405	$ 3.02
Vested	(328,965)	$ 5.40
Forfeited	(85,015)	$ 4.28
Non-vested shares, December 31, 2016	**1,014,524**	**$ 3.84**

Performance Share Units

Beginning in 2014, the Company granted PSUs to officers and certain key employees that may be earned based on the Company's total shareholder return over the three-year performance period. PSUs are paid out at the end of each performance period based on the Company's performance, which is measured by determining the percentile rank of the total shareholder return of the Company's common stock in relation to the total shareholder return of a specific peer group of companies. For PSUs issued in 2014 and 2015, the peer group of companies utilized was the S&P Midcap 400 Index. For PSUs issued in 2016, the peer group of companies utilized is the S&P 600 Industrial Index. The payment of PSUs following the performance period will be based in accordance with the scale set forth in the PSU agreements, and may range from 0% to 200% of the initial grant. PSUs do not have an option for cash payment.

During the year ended December 31, 2014, the Company granted 15,700 shares in April, 82,526 shares in May, 11,487 shares in July, 26,550 shares in August, 4,980 shares in September and 3,906 shares in November under the 2013 Plan. During the year ended December 31, 2015, the Company granted 237,063 shares in May under the 2013 Plan. During the year ended December 31, 2016, the Company granted 527,249 shares in May and 9,524 shares in November under the 2013 plan. The fair value of PSUs granted was estimated on the grant date using a Monte Carlo pricing model with the following assumptions:

	Risk-free Interest rate	Dividend Yield	Expected Life (Years)	Volatility	Fair Value of PSU
April 2014 Grant	0.75%	—%	2.73	34.3%	$ 18.00
May 2014 Grant (1st)	0.70%	—%	2.65	31.8%	$ 25.26
May 2014 Grant (2nd)	0.63%	—%	2.61	30.1%	$ 27.53
July 2014 Grant	0.74%	—%	2.42	26.9%	$ 22.31
August 2014 Grant	0.67%	—%	2.42	26.9%	$ 21.86
September 2014 Grant	0.72%	—%	2.29	25.7%	$ 15.26
November 2014 Grant	0.55%	—%	2.10	26.3%	$ 7.42
May 2015 Grant	0.83%	—%	2.65	28.5%	$ 14.48
May 2016 Grant	0.84%	—%	2.65	33.3%	$ 7.19
November 2016 Grant	0.96%	—%	2.14	35.2%	$ 17.84

Total compensation expense related to PSUs was $2.5 million, $1.4 million and $0.9 million for the years ended December 31, 2016, 2015 and 2014, respectively. At December 31, 2016, total unrecognized compensation expense related to non-vested PSUs was $3.3 million, which is expected to be recognized over a weighted average period of 1.7 years.

A summary of the Company's non-vested PSU activity during the years ending December 31, 2016 was as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value
Non-vested shares, December 31, 2015	315,212	$ 16.94
Granted	536,773	$ 7.38
Forfeited	(63,217)	$ 12.78
Cancellations (d)	(96,206)	$ 21.69
Non-vested shares, December 31, 2016	**692,562**	**$ 9.25**

(d) The measurement period for PSUs issued in 2014 ended on December 31, 2016. The Company's total shareholder return compared to the peer group of companies resulted in no shares being issued because no PSUs were earned.

Stock Options

The Company may grant incentive stock options and nonqualified stock options to officers, certain key employees and non-employee directors under the plans noted above. The stock options would generally vest three years from the grant date, which is the date the Board approved the grants, and expire no later than seven years after the grant date. The exercise price of the stock option would be fair value on the grant date. Upon exercise, a new share of Company common stock is issued for each stock option. Stock option activity for the years ended December 31, 2016 was as follows:

	Number of Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value (in millions)(e)
Outstanding, December 31, 2015	90,000	$ 31.75	$ —
Forfeited/Expired	(35,000)	$ 31.75	$ —
Outstanding, December 31, 2016	**55,000**	**$ 31.75**	**$ —**

(e) Intrinsic value is defined as the difference between the current market value and the exercise price, for those options where the market price exceeds the exercise price.

There was no compensation expense related to stock options in 2016 and 2015. Compensation expense related to stock options totaled less than $0.1 million in 2014. At December 31, 2016 and 2015, there was no unrecognized compensation expense related to non-vested stock options. There were no stock options exercised and no net cash proceeds from the exercise of stock options in 2016, 2015 and 2014.

The following table summarizes information concerning outstanding and exercisable options at December 31, 2016:

	Stock Options Outstanding				Stock Options Exercisable	
Range of Exercisable Prices	Vested	Non-vested	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life in Years	Number Exercisable	Weighted Average Exercise Price Per Share
$31.75 - $31.75	**55,000**	**—**	**$ 31.75**	**1.1**	**55,000**	**$ 31.75**

During 2014, the Company issued 27,672 common shares to the Interim Chief Executive Officer as part of his compensation agreement. These shares vested immediately and were not subject to any holding period restrictions. The fair value of these other stock grants were based on the market price of the Company's stock at the grant date. Expense recognized in 2014 for these other stock grants totaled $0.7 million. In addition, 55,919 common shares were issued to other officers and key employees to settle previous fully-vested liability-based long-term incentive award programs.

15. Financial Instruments

Off-Balance Sheet Risk

As collateral for the Company's performance and to insurers, the Company is contingently liable under standby letters of credit, bonds and bank guarantees in the amounts of $273.1 million, $232.5 million and $269.4 million at December 31, 2016, 2015 and 2014, respectively. The increase at December 31, 2016 primarily relates to letters of credit and issuance of surety bonds related to the SBB rail order in the Harsco Rail Segment. The decrease at December 31, 2015 primarily relates to the expiration of several guarantees and lower negotiated amounts for certain insurance letters of credit. These standby letters of credit, bonds and bank guarantees are generally in force for up to 3 years. Certain issues have no scheduled expiration date. The Company pays fees to various banks and insurance companies that range from 0.4% to 3.5% per annum of the instrument's face value. If the Company were required to obtain replacement standby letters of credit, bonds and bank guarantees at December 31, 2016 for those currently outstanding, it is the Company's opinion that the replacement costs would be within the present fee structure.

The Company has currency exposures in approximately 30 countries. The Company's primary foreign currency exposures during 2016 were in the European Union, the U.K. and Brazil.

Off-Balance Sheet Risk—Third-Party Guarantees

During June 2014, the Company provided a guarantee to Brand as part of the net working capital settlement related to the Infrastructure Transaction, for certain matters occurring prior to closing. The remaining term of this guarantee is four years at December 31, 2016. The maximum potential amount of future payments related to this guarantee is approximately $3 million at December 31, 2016. There is no recognition of this potential future payment in the consolidated financial statements as the Company believes the potential for making this payment is remote.

The Company provided an environmental indemnification for property from a lease that terminated in 2006. The term of this guarantee is indefinite, and the Company would be required to perform under the guarantee only if an environmental matter was discovered on the property relating to the time the Company leased the property. The Company is not aware of any environmental issues related to this property. The maximum potential amount of future payments (undiscounted) related to this guarantee is estimated to be $3.0 million at December 31, 2016, 2015 and 2014. There is no recognition of this potential future payment in the consolidated financial statements as the Company believes the potential for making this payment is remote.

Any liabilities related to the Company's obligation to stand ready to act on third-party guarantees are included, Other current liabilities or Other liabilities (as appropriate), on the Consolidated Balance Sheets. Any recognition of these liabilities did not have a material impact on the Company's financial position or results of operations for 2016, 2015 or 2014.

In the normal course of business, legal indemnifications are provided related primarily to the performance of the Company's products and services and patent and trademark infringement of the products and services sold. These indemnifications generally relate to the performance (regarding function, not price) of the respective products or services and therefore no liability is recognized related to the fair value of such guarantees.

Derivative Instruments and Hedging Activities
The Company uses derivative instruments, including foreign currency exchange forward contracts and cross-currency interest rate swaps ("CCIRs"), to manage certain foreign currency and interest rate exposures. Derivative instruments are viewed as risk management tools by the Company and are not used for trading or speculative purposes.

All derivative instruments are recorded on the Consolidated Balance Sheets at fair value. Changes in the fair value of derivatives used to hedge foreign currency denominated balance sheet items are reported directly in earnings along with offsetting transaction gains and losses on the items being hedged. Derivatives used to hedge forecasted cash flows associated with foreign currency commitments or forecasted commodity purchases may be accounted for as cash flow hedges, as deemed appropriate, if the criteria for hedge accounting are met. Gains and losses on derivatives designated as cash flow hedges are deferred in Accumulated other comprehensive loss, a separate component of equity, and reclassified to earnings in a manner that matches the timing of the earnings impact of the hedged transactions. Generally, at December 31, 2016, deferred gains and losses related to asset purchases are reclassified to earnings over 10 to 15 years from the balance sheet date and those related to revenue are deferred until the revenue is recognized. The ineffective portion of all hedges, if any, is recognized currently in earnings.

The fair value of outstanding derivative contracts recorded as assets and liabilities on the Consolidated Balance Sheets at December 31, 2016 and 2015 was as follows:

	Asset Derivatives		Liability Derivatives	
(In thousands)	**Balance Sheet Location**	**Fair Value**	**Balance Sheet Location**	**Fair Value**
December 31, 2016				
Derivatives designated as hedging instruments:				
Foreign currency exchange forward contracts	Other current assets	**$ 473**	Other current liabilities	**$ 166**
Cross-currency interest rate swaps	Other current assets	**514**		**—**
Total derivatives designated as hedging instruments		**$ 987**		**$ 166**
Derivatives not designated as hedging instruments:				
Foreign currency exchange forward contracts	Other current assets	**$ 4,459**	Other current liabilities	**$ 3,372**

	Asset Derivatives		Liability Derivatives	
(In thousands)	**Balance Sheet Location**	**Fair Value**	**Balance Sheet Location**	**Fair Value**
December 31, 2015				
Derivatives designated as hedging instruments:				
Foreign currency exchange forward contracts	Other current assets	$ 1,640		$ —
Cross-currency interest rate swaps	Other assets	15,417		—
Total derivatives designated as hedging instruments		$ 17,057		$ —
Derivatives not designated as hedging instruments:				
Foreign currency exchange forward contracts	Other current assets	$ 4,188	Other current liabilities	$ 1,738

All of the Company's derivatives are recorded on the Consolidated Balance Sheets at gross amounts and not offset. All of the Company's CCIRs and certain foreign currency exchange forward contracts are transacted under International Swaps and Derivatives Association ("ISDA") documentation. Each ISDA master agreement permits the net settlement of amounts owed in the event of default. The Company's derivative assets and liabilities subject to enforceable master netting arrangements did not result in a net asset or net liability at either December 31, 2016 or 2015.

The effect of derivative instruments on the Consolidated Statements of Operations and the Consolidated Statements of Comprehensive Income (Loss) during 2016, 2015 and 2014 was as follows:

Derivatives Designated as Hedging Instruments

(In thousands)	Amount of Gain (Loss) Recognized in Other Comprehensive Income ("OCI") on Derivative—Effective Portion	Location of Gain (Loss) Reclassified from Accumulated OCI into Income—Effective Portion	Amount of Gain (Loss) Reclassified from Accumulated OCI into Income—Effective Portion	Location of Gain (Loss) Recognized in Income on Derivative—Ineffective Portion and Amount Excluded from Effectiveness Testing	Amount of Gain (Loss) Recognized in Income on Derivative—Ineffective Portion and Amount Excluded from Effectiveness Testing
Twelve Months Ended December 31, 2016:					
Foreign currency exchange forward contracts	**$ 1,884**	Cost of services and products sold	**$ 410**		**$ —**
Cross-currency interest rate swaps	**(1,549)**		**—**	Cost of services and products sold	**4,042** (a)
	$ 335		**$ 410**		**$ 4,042**
Twelve Months Ended December 31, 2015:					
Foreign currency exchange forward contracts	$ 2,532	Cost of services and products sold	$ 53		$ —
Cross-currency interest rate swaps	9,012		—	Cost of services and products sold	30,359 (a)
	$ 11,544		$ 53		$ 30,359
Twelve Months Ended December 31, 2014:					
Foreign currency exchange forward contracts	$ 358	Cost of services and products sold	$ 4		$ —
Cross-currency interest rate swaps	(1,977)		—	Cost of services and products sold	39,823 (a)
	$ (1,619)		$ 4		$ 39,823

(a) These gains (losses) offset foreign currency fluctuation effects on the debt principal.

Derivatives Not Designated as Hedging Instruments

(In thousands)	Location of Loss Recognized in Income on Derivative	Amount of Gain (Loss) Recognized in Income on Derivative for the Twelve Months Ended December 31(b) 2016	2015	2014
Foreign currency exchange forward contracts	Cost of services and products sold	**$ 15,875**	$ (158)	$ (2,307)

(b) These gains (losses) offset amounts recognized in cost of service and products sold principally as a result of intercompany or third-party foreign currency exposures.

Foreign Currency Exchange Forward Contracts

The Company conducts business in multiple currencies and, accordingly, is subject to the inherent risks associated with foreign exchange rate movements. The financial position and results of operations of substantially all of the Company's foreign subsidiaries are measured using the local currency as the functional currency. Foreign currency-denominated assets and liabilities are translated into U.S. dollars at the exchange rates existing at the respective balance sheet dates, and income and expense items are translated at the average exchange rates during the respective periods. The aggregate effects of translating the balance sheets of these subsidiaries are deferred and recorded in Accumulated other comprehensive loss, which is a separate component of equity.

The Company uses derivative instruments to hedge cash flows related to foreign currency fluctuations. Foreign currency exchange forward contracts outstanding are part of a worldwide program to minimize foreign currency exchange operating income and balance sheet exposure by offsetting foreign currency exposures of certain future payments between the Company and various subsidiaries, suppliers or customers. The unsecured contracts are with major financial institutions. The Company may be exposed to credit loss in the event of non-performance by the contract counterparties. The Company evaluates the creditworthiness of the counterparties and does not expect default by them. Foreign currency exchange forward contracts are used to hedge commitments, such as foreign currency debt, firm purchase commitments and foreign currency cash flows for certain export sales transactions.

The following tables summarize, by major currency, the contractual amounts of the Company's foreign currency exchange forward contracts in U.S. dollars at December 31, 2016 and 2015. The "Buy" amounts represent the U.S. dollar equivalent of commitments to purchase foreign currencies, and the "Sell" amounts represent the U.S. dollar equivalent of commitments to sell foreign currencies. The recognized gains and losses offset amounts recognized in cost of services and products sold principally as a result of intercompany or third-party foreign currency exposures.

Contracted Amounts of Foreign Currency Exchange Forward Contracts Outstanding at December 31, 2016:

(In thousands)	Type	U.S. Dollar Equivalent	Maturity	Recognized Gain (Loss)
British pounds sterling	Sell	**$ 55,120**	January 2017	**$ (228)**
British pounds sterling	Buy	**827**	March 2017	**(14)**
Euros	Sell	**326,797**	January 2017 through December 2017	**628**
Euros	Buy	**171,578**	January 2017 through January 2018	**(468)**
Other currencies	Sell	**43,455**	January 2017 through September 2017	**1,477**
Other currencies	Buy	**3,106**	March 2017	**(1)**
Total		**$ 600,883**		**$ 1,394**

Contracted Amounts of Foreign Currency Exchange Forward Contracts Outstanding at December 31, 2015:

(In thousands)	Type	U.S. Dollar Equivalent	Maturity	Recognized Gain (Loss)
British pounds sterling	Sell	$ 43,511	January 2016	$ 822
British pounds sterling	Buy	2,062	January 2016	(54)
Euros	Sell	336,397	January 2016 through December 2016	547
Euros	Buy	167,037	January 2016 through August 2016	2,497
Other currencies	Sell	35,426	January 2016 through March 2016	316
Other currencies	Buy	7,981	January 2016	(38)
Total		$ 592,414		$ 4,090

In addition to foreign currency exchange forward contracts, the Company designates certain loans as hedges of net investments in international subsidiaries. The Company recorded pre-tax net losses of $37.5 million, pre-tax net gains of $2.7 million and pre-tax net gains of $22.6 million related to hedges of net investments during 2016, 2015 and 2014, respectively, in Accumulated other comprehensive loss.

Cross-Currency Interest Rate Swaps

The Company uses CCIRs in conjunction with certain debt issuances in order to secure a fixed local currency interest rate. Under these CCIRs, the Company receives interest based on a fixed or floating U.S. dollar rate and pays interest on a fixed local currency rate based on the contractual amounts in dollars and the local currency, respectively. At maturity, there is also the payment of principal amounts between currencies. The CCIRs are recorded on the Consolidated Balance Sheets at fair value, with changes in value attributed to the effect of the swaps' interest spread and changes in the credit worthiness of the counter-parties recorded in Accumulated other comprehensive loss. Changes in value attributed to the effect of foreign currency fluctuations are recorded on the Consolidated Statements of Operations and offset currency fluctuation effects on the debt principal. The following table indicates the contractual amounts of the Company's CCIRs:

		Interest Rates	
(In millions)	Contractual Amounts	Receive	Pay
Maturing 2017	$ 2.7	Floating U.S. dollar rate	Fixed rupee rate

During March 2016, the Company effected the early termination of the British pound sterling CCIR with an original maturity date of 2020. The Company received $16.6 million in cash related to this termination. During August 2015, the Company effected the early termination of the euro CCIR with an original maturity date of 2018. The Company received $75.1 million in cash related to this termination. Euro denominated foreign currency exchange forward contracts were entered into later in 2015 that provide similar protection from changes in foreign exchange rates to the terminated CCIR contract. There was no gain or loss recorded on these terminations as any change in value attributable to the effect of foreign currency translation was previously recognized on the Consolidated Statements of Operations.

Fair Value of Derivative Assets and Liabilities and Other Financial Instruments
Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). The Company utilizes market data or assumptions that the Company believes market participants would use in valuing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique.

The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1—Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2—Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3—Inputs that are both significant to the fair value measurement and unobservable.

In instances in which multiple levels of inputs are used to measure fair value, hierarchy classification is based on the lowest level input that is significant to the fair value measurement in its entirety. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment, and considers factors specific to the asset or liability.

The following table indicates the fair value hierarchy of the financial instruments of the Company at December 31, 2016 and 2015:

Level 2 Fair Value Measurements (In thousands)	**December 31 2016**	**December 31 2015**
Assets		
Foreign currency exchange forward contracts	**$ 4,932**	$ 5,828
Cross-currency interest rate swaps	**514**	15,417
Liabilities		
Foreign-currency forward exchange contracts	**3,538**	1,738

The following table reconciles the beginning and ending balances for liabilities measured on a recurring basis using unobservable inputs (Level 3) for the years ended December 31, 2016 and 2015:

Level 3 Liabilities—Unit Adjustment Liability (c) for the Twelve Months Ended December 31 (In thousands)	**2016**	**2015**	
Balance at beginning of year	**$ 79,934**	$ 93,762	
Reduction in the fair value related to election not to make 2016 payments	**(19,145)**	—	
Sale of equity interest in Brand	**(65,461)**	—	
Payments	**—**	(22,320)	
Change in fair value to the unit adjustment liability	**4,672**	8,491	
Balance at end of year	**$ —**	$ 79,934	(d)

(c) See Note 5, Equity Method Investments, for additional information.
(d) Does not total due to rounding.

The Company primarily applies the market approach for recurring fair value measurements and endeavors to utilize the best available information. Accordingly, the Company utilizes valuation techniques that maximize the use of observable inputs, such as forward rates, interest rates, the Company's credit risk and counterparties' credit risks, and which minimize the use of unobservable inputs. The Company is able to classify fair value balances based on the ability to observe those inputs. Foreign currency exchange forward contracts and CCIRs are classified as Level 2 fair value based upon pricing models using market-based inputs. Model inputs can be verified, and valuation techniques do not involve significant management judgment.

The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable, accrued liabilities and short-term borrowings approximate fair value due to the short-term maturities of these assets and liabilities. At December 31, 2016 and 2015, the total fair value of long-term debt, including current maturities, was $682.9 million and $834.6 million, respectively, compared with a carrying value of $673.4 million and $880.8 million, respectively. Fair values for debt are based on quoted market prices (Level 1) for the same or similar issues or on the current rates offered to the Company for debt of the same remaining maturities.

Concentrations of Credit Risk
Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents and accounts receivable. The Company places cash and cash equivalents with high-quality financial institutions and, by policy, limits the amount of credit exposure to any single institution.

Concentrations of credit risk with respect to accounts receivable are generally limited in the Harsco Industrial Segments. However, the Company's Harsco Metals & Minerals Segment and, to a lesser extent, the Harsco Rail Segment have several large customers throughout the world with significant accounts receivable balances. Consolidation in the global steel or rail industries could result in an increase in concentration of credit risk for the Company.

The Company generally does not require collateral or other security to support customer receivables. If a receivable from one or more of the Company's larger customers becomes uncollectible, it could have a material effect on the Company's results of operations or cash flows.

16. Information by Segment and Geographic Area

The Company reports information about operating segments using the "management approach," which is based on the way management organizes and reports the segments within the enterprise for making operating decisions and assessing performance. The Company's reportable segments are identified based upon differences in products, services and markets served.

In 2016, the Company had three reportable segments. These segments and the types of products and services offered include the following:

Harsco Metals & Minerals Segment
Global expertise in providing on-site services for material logistics, product quality improvement and resource recovery from iron, steel and metals manufacturing; as well as value added environmental solutions for industrial co-products. Major customers include steel mills and asphalt roofing manufacturers.

Harsco Industrial Segment
Major products include air-cooled heat exchangers; industrial grating; high-security fencing and boilers and water heaters. Major customers include industrial plants and the non-residential, commercial and public construction and retrofit markets; and the natural gas, natural gas processing and petrochemical industries.

Harsco Rail Segment
This Segment manufactures railway track maintenance equipment and provides track maintenance services. The major customers include private and government-owned railroads and urban mass transit systems worldwide.

Other Information
The measurement basis of segment profit or loss is operating income (loss). There are no significant inter-segment sales. Corporate assets, at December 31, 2016 and 2015, include principally cash, prepaid taxes, fair value of derivative instruments and U.S. deferred income taxes. In addition, Corporate assets at December 31, 2015 included the Company's equity method investment in Brand. Countries with revenues from unaffiliated customers or net property, plant and equipment of ten percent or more of the consolidated totals (in at least one period presented) are as follows:

Information by Geographic Area (a)

	Revenues from Unaffiliated Customers		
	Year Ended December 31		
(In thousands)	2016	2015	2014
U.S.	$ **614,327**	$ 758,820	$ 880,884
U.K.	**156,552**	217,011	257,885
All Other	**680,344**	747,261	927,519
Totals including Corporate	$ **1,451,223**	$ 1,723,092	$ 2,066,288

(a) Revenues are attributed to individual countries based on the location of the facility generating the revenue.

	Property, Plant and Equipment, Net		
	Balances at December 31		
(In thousands)	2016	2015	2014
U.S.	$ **125,386**	$ 142,506	$ 151,397
China	**90,288**	97,305	102,842
Brazil	**62,597**	57,381	69,515
All Other	**211,984**	266,843	339,490
Totals including Corporate	$ **490,255**	$ 564,035	$ 663,244

No single customer provided in excess of 10% of the Company's consolidated revenues in 2016, 2015 and 2014.

In 2016, the Harsco Metals & Minerals Segment had one customer and in 2015 and 2014 two customers that each provided in excess of 10% of this Segment's revenues under multiple long-term contracts at several mill sites. Should additional consolidations occur involving some of the steel industry's larger companies which are customers of the Company, it would result in an increase in concentration of credit risk for the Company. The loss of any one of the contracts would not have a material adverse effect upon the Company's financial position or cash flows; however, it could have a significant effect on quarterly or annual results of operations.

In 2016, the Harsco Industrial Segment had no customers, in 2015 two customers and in 2014 one customer that provided in excess of 10% of the Segment's revenues. In 2016 and 2014, the Harsco Rail Segment had one customer; and in 2015 two customers that provided in excess of 10% of the Segment's revenues. The loss of any of these customers would not have a material adverse impact on the Company's financial positions or cash flows; however, it could have a material effect on quarterly or annual results of operations.

Operating Information by Segment:

	Twelve Months Ended December 31		
(In thousands)	2016	2015	2014
Revenues			
Harsco Metals & Minerals	$ **965,540**	$ 1,106,162	$ 1,378,142
Harsco Industrial	**247,542**	357,256	412,532
Harsco Rail	**238,107**	259,674	275,614
Corporate	**34**	—	—
Total Revenues	$ **1,451,223**	$ 1,723,092	$ 2,066,288
Operating Income (Loss)			
Harsco Metals & Minerals	$ **81,634**	$ 26,289	$ 13,771
Harsco Industrial	**23,182**	57,020	64,114
Harsco Rail	**(17,527)**	50,896	37,137
Corporate	**(23,820)**	(45,669)	(45,735)
Total Operating Income (Loss)	$ **63,469**	$ 88,536	$ 69,287

(In thousands)	Twelve Months Ended December 31 2016	2015	2014
Total Assets			
Harsco Metals & Minerals	**$ 1,181,755**	$ 1,294,673	$ 1,476,538
Harsco Industrial	**107,987**	119,830	127,591
Harsco Rail	**204,477**	219,753	169,035
Corporate	**87,167**	426,941	493,782
Total Assets	**$ 1,581,386**	$ 2,061,197	$ 2,266,946
Depreciation and Amortization			
Harsco Metals & Minerals	**$ 120,611**	$ 136,579	$ 159,844
Harsco Industrial	**7,223**	6,266	4,928
Harsco Rail	**5,383**	6,093	5,591
Corporate	**8,269**	7,537	5,963
Total Depreciation and Amortization	**$ 141,486**	$ 156,475	$ 176,326
Capital Expenditures			
Harsco Metals & Minerals	**$ 62,322**	$ 99,563	$ 187,665
Harsco Industrial	**5,118**	17,382	9,298
Harsco Rail	**1,696**	1,957	3,120
Corporate	**204**	4,650	8,776
Total Capital Expenditures	**$ 69,340**	$ 123,552	$ 208,859

Reconciliation of Segment Operating Income to Consolidated Income (Loss) From Continuing Operations Before Income Taxes and Equity Income (Loss):

(In thousands)	Twelve Months Ended December 31 2016	2015	2014
Segment operating income	**$ 87,289**	$ 134,205	$ 115,022
General Corporate expense	**(23,820)**	(45,669)	(45,735)
Operating income from continuing operations	**63,469**	88,536	69,287
Interest income	**2,475**	1,574	1,702
Interest expense	**(51,584)**	(46,804)	(47,111)
Loss on early extinguishment of debt	**(35,337)**	—	—
Change in fair value to the unit adjustment liability and loss on dilution and sale of equity method investment	**(58,494)**	(8,491)	(9,740)
Income (loss) from continuing operations before income taxes and equity income (loss)	**$ (79,471)**	$ 34,815	$ 14,138

Information about Products and Services:

	Revenues from Unaffiliated Customers		
(In thousands)	Twelve Months Ended December 31 2016	2015	2014
Key Product and Services Groups			
Global expertise in providing on-site services of material logistics, product quality improvement and resource recovery for iron, steel and metals manufacturing; as well as value added environmental solutions for industrial co-products	**$ 965,540**	$ 1,106,162	$ 1,378,142
Railway track maintenance services and equipment	**238,107**	259,674	275,614
Industrial grating and fencing products	**115,914**	129,869	139,711
Air-cooled heat exchangers	**93,616**	186,243	226,529
Heat transfer products	**38,012**	41,144	46,292
General Corporate	**34**	—	—
Consolidated Revenues	**$ 1,451,223**	**$ 1,723,092**	**$ 2,066,288**

17. Other Expenses

During 2016, 2015 and 2014, the Company recorded pre-tax other expenses from continuing operations of $12.6 million, $30.6 million and $57.8 million, respectively. The major components of this Consolidated Statements of Operations caption are as follows:

(In thousands)	2016	2015	2014
Net gains	$ **(1,764)**	$ (10,613)	$ (6,718)
Employee termination benefit costs	**10,777**	14,914	19,120
Other costs to exit activities	**440**	13,451	4,908
Impaired asset write-downs	**399**	8,170	39,455
Foreign currency gains related to Harsco Rail Segment advances on contracts	**—**	(10,940)	—
Harsco Metals & Minerals Segment separation costs	**3,235**	9,922	—
Subcontractor settlement	**—**	4,220	—
Other expense	**(467)**	1,449	1,059
Total	$ **12,620**	$ 30,573	$ 57,824

Net Gains
Net gains result from the sales of redundant properties (primarily land, buildings and related equipment) and non-core assets. In 2016, gains related to assets sold principally in Western Europe, North America and Latin America. In 2015, gains related to assets sold principally in North America and Latin America. In 2014, gains related to assets sold primarily in North America and Latin America.

	Net Gains		
(In thousands)	2016	2015	2014
Harsco Metals & Minerals Segment	$ **(1,828)**	$ (7,059)	$ (3,538)
Harsco Industrial Segment	**64**	(3,554)	(2,077)
Corporate	**—**	—	(1,103)
Total	$ **(1,764)**	$ (10,613)	$ (6,718)

Cash proceeds associated with these gains are included in Proceeds from sales of assets, in the cash flows from investing activities section of the Consolidated Statements of Cash Flows.

Employee Termination Benefit Costs
Costs and the related liabilities associated with involuntary termination benefit costs associated with one-time benefit arrangements provided as part of an exit or disposal activity are recognized by the Company when a formal plan for reorganization is approved at the appropriate level of management and communicated to the affected employees. Additionally, costs associated with ongoing benefit arrangements, or in certain countries where statutory requirements dictate a minimum required benefit, are recognized when they are probable and estimable.

The employee termination benefits costs in 2016 related principally to the Harsco Metals & Minerals Segment, including a probable site exit and the impact of Harsco Metals & Minerals Segment's Improvement Plan ("Project Orion"), primarily in Western Europe, Latin America and North America. The employee termination benefits costs in 2015 related principally to the Harsco Metals & Minerals Segment, including the impact of Project Orion, primarily in Western Europe, North America and Asia Pacific. Additionally, employee termination benefits costs were incurred at Corporate. The employee termination benefits costs in 2014 related primarily to the Harsco Metals & Minerals Segment, including the impact of Project Orion, primarily in Latin America and Western Europe.

	Employee Termination Benefit Costs		
(In thousands)	2016	2015	2014
Harsco Metals & Minerals Segment	$ **8,491**	$ 11,454	$ 18,169
Harsco Industrial Segment	**947**	561	421
Harsco Rail Segment	**297**	145	185
Corporate	**1,042**	2,754	345
Total	$ **10,777**	$ 14,914	$ 19,120

Other Costs to Exit Activities
Costs associated with exit or disposal activities are recognized as follows:

- Costs to terminate a contract that is not a capital lease are recognized when an entity terminates the contract or when an entity ceases using the right conveyed by the contract. This includes the costs to terminate the contract before the end of its term or the costs that will continue to be incurred under the contract for its remaining term without economic benefit to the entity (e.g., lease run-out costs).
- Other costs associated with exit or disposal activities (e.g., costs to consolidate or close facilities and relocate equipment or employees) are recognized and measured at their fair value in the period in which the liability is incurred.

In 2016, $0.4 million of exit costs were incurred, principally in North America and Western Europe.

In 2015, $13.5 million of exit costs were incurred, principally in the Harsco Metals & Minerals Segment, primarily related to the Middle East, North America, Latin America and Western Europe.

Other costs to exit activities during 2015 include costs associated with the Company's exit of operations in Bahrain. Over the past several years the Company has been in discussions with officials at the Supreme Council for Environment in Bahrain with regard to a processing by-product ("salt cakes") located at Hafeera. During 2015, the Company completed the assessment of options available for processing or removing the salt cakes. As a result, the Company has entered into a service agreement with a third party for processing the salt cakes and recorded a charge of $7.0 million, payable over five to seven years, related to the estimated cost of processing and disposal. The Company's Bahrain operations are operated under a strategic venture for which its strategic venture partner has a 35% minority interest. Accordingly, the net impact of the charge to the Company's net income (loss) attributable to the Company was $4.6 million.

In 2014, $4.9 million of exit costs were incurred, principally in the Harsco Metals & Minerals Segment, primarily related to North America and Western Europe, partially offset at Corporate by gains from currency translation adjustments recognized in earnings related to historic Harsco Infrastructure Segment entities which were not included as part of the Infrastructure Transaction and retained by the Company. The currency translation adjustments are non-cash items recognized when the Company has substantially liquidated the related investment in a foreign entity.

	Costs to Exit Activities		
(In thousands)	**2016**	**2015**	**2014**
Harsco Metals & Minerals Segment	**$ 220**	$ 12,638	$ 6,395
Harsco Industrial Segment	**40**	—	—
Corporate	**180**	813	(1,487)
Total	**$ 440**	$ 13,451	$ 4,908

Impaired Asset Write-downs
Impaired asset write-downs are measured as the amount by which the carrying amount of assets exceeds their fair value. Fair value is estimated based upon the expected future realizable cash flows including anticipated selling prices. Non-cash impaired asset write-downs are included in, Other, net, on the Consolidated Statements of Cash Flows as adjustments to reconcile net income (loss) to net cash provided by operating activities.

In 2016, $0.4 million, of impaired asset write-downs were incurred principally in the Harsco Metals & Minerals Segment, mostly in the Asia Pacific region. In 2015, $8.2 million of impaired asset write-downs were incurred in the Harsco Metals & Minerals Segment, mostly in North America, Middle East and Africa and the Asia Pacific region. In 2014, $39.5 million of impaired asset write-downs were incurred, principally in the Harsco Metals & Minerals Segment and mostly in Western Europe, the Middle East and Africa and the Asia Pacific region as part of Project Orion.

	Impaired Asset Write-downs		
(In thousands)	**2016**	**2015**	**2014**
Harsco Metals & Minerals Segment	**$ 399**	$ 8,170	$ 38,791
Harsco Industrial Segment	**—**	—	74
Harsco Rail Segment	**—**	—	590
Total	**$ 399**	$ 8,170	$ 39,455

Foreign Currency Gains Related to Harsco Rail Segment Advances on Contracts
In January 2015, the Swiss National Bank ended its policy of maintaining a stable exchange rate between the Swiss franc and the euro. As a result of this change in policy, the Swiss franc experienced significant appreciation against the euro. During 2015, the Company recognized $10.9 million in foreign currency gains primarily related to converting Swiss franc bank deposits to euros. This gain was associated with advances received for the Harsco Rail Segment's two contracts with the SBB.

Harsco Metals & Minerals Segment Separation Costs
The Company has announced its intention to pursue strategic options for the separation of the Harsco Metals & Minerals Segment from the rest of the Company. In 2016 and 2015, the Company incurred $3.2 million and $9.9 million of expenses related to the strategic review of this initiative, respectively.

Subcontractor Settlement
A subcontractor at the site of a large customer in the Harsco Metals & Minerals Segment had filed arbitration against the Company, claiming that it was owed monetary damages from the Company in connection with its processing certain materials. Additionally, related to this matter, the Company has brought suit against its customer which the Company believed had responsibility for any damages. During 2015, all parties involved reached a binding settlement agreement. The Company recorded a charge of $4.2 million related to its obligations under the settlement agreement.

18. Components of Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss is included on the Consolidated Statements of Stockholders' Equity. The components of Accumulated other comprehensive loss, net of the effect of income taxes, and activity for the years ended December 31, 2016 and 2015 are as follows:

	Components of Accumulated Other Comprehensive Income (Loss) - Net of Tax				
(In thousands)	**Cumulative Foreign Exchange Translation Adjustments**	**Effective Portion of Derivatives Designated as Hedging Instruments**	**Cumulative Unrecognized Actuarial Losses on Pension Obligations**	**Unrealized Loss on Marketable Securities**	**Total**
Balance at December 31, 2014	$ (39,938)	$ (9,025)	$ (483,278)	$ (15)	$ (532,256)
Other comprehensive income (loss) before reclassifications	(66,305) (a)	9,796 (b)	72,796 (c)	(16)	16,271
Other comprehensive income (loss) from equity method investee	(21,950)	(1,232)	596	—	(22,586)
Amounts reclassified from accumulated other comprehensive loss, net of tax	—	53	20,190	—	20,243
Total other comprehensive income (loss)	(88,255)	8,617	93,582	(16)	13,928
Less: Other comprehensive loss attributable to noncontrolling interests	2,632	8	—	—	2,640
Other comprehensive income (loss) attributable to Harsco Corporation	(85,623)	8,625	93,582	(16)	16,568
Balance at December 31, 2015	$ (125,561)	$ (400)	$ (389,696)	$ (31)	$ (515,688)

(In thousands)	Components of Accumulated Other Comprehensive Income (Loss) - Net of Tax: Cumulative Foreign Exchange Translation Adjustments	Effective Portion of Derivatives Designated as Hedging Instruments	Cumulative Unrecognized Actuarial Losses on Pension Obligations	Unrealized Loss on Marketable Securities	Total
Balance at December 31, 2015	$ (125,561)	$ (400)	$ (389,696)	$ (31)	$ (515,688)
Other comprehensive income (loss) before reclassifications	(53,301) (a)	(1,650) (b)	(86,181) (c)	26	(141,106)
Amounts reclassified from accumulated other comprehensive loss, net of tax	1,157	(263)	16,011	—	16,905
Realized (gains) losses reclassified from accumulated other comprehensive loss in connection with loss on dilution of equity method investment (See Note 5, Equity Method Investments)	28,641	1,636	(1,534)	—	28,743
Other comprehensive income (loss) from equity method investee	1,943	(405)	306	—	1,844
Total other comprehensive income (loss)	(21,560)	(682)	(71,398)	26	(93,614)
Less: Other comprehensive loss attributable to noncontrolling interests	2,587	(7)	—	—	2,580
Other comprehensive income (loss) attributable to Harsco Corporation	(18,973)	(689)	(71,398)	26	(91,034)
Balance at December 31, 2016	**$ (144,534)**	**$ (1,089)**	**$ (461,094)**	**$ (5)**	**$ (606,722)**

(a) Principally foreign currency fluctuation.
(b) Principally net change from periodic revaluations.
(c) Principally changes due to annual actuarial remeasurements.

Amounts reclassified from accumulated other comprehensive loss for 2016 and 2015 are as follows:

(In thousands)	Year Ended December 31 2016	Year Ended December 31 2015	Affected Caption on the Consolidated Statements of Operations
Amortization of defined benefit pension items (d):			
Actuarial losses	**$ 8,490**	$ 15,810	Selling, general and administrative expenses
Actuarial losses	**9,005**	5,984	Cost of services and products sold
Prior-service costs	**(11)**	121	Selling, general and administrative expenses
Prior-service costs	**263**	148	Cost of services and products sold
Settlement/curtailment losses	**355**	—	Selling, general and administrative expenses
Total before tax	**18,102**	**22,063**	
Tax benefit	**(2,091)**	(1,873)	
Total reclassification of defined benefit pension items, net of tax	**$ 16,011**	$ 20,190	
Amortization of cash flow hedging instruments:			
Foreign currency exchange forward contracts	**$ (408)**	$ —	Product revenues
Foreign currency exchange forward contracts	**(2)**	81	Cost of services and products sold
Total before tax	**(410)**	81	
Tax benefit	**147**	(28)	
Total reclassification of cash flow hedging instruments	**$ (263)**	$ 53	
Recognition of cumulative foreign exchange translation adjustments:			
Foreign exchange translation adjustments, before tax	**$ 1,157**	$ —	Other expenses
Tax benefit	**—**	—	
Total reclassification of cumulative foreign exchange translation adjustments	**$ 1,157**	$ —	

(d) These accumulated other comprehensive loss components are included in the computation of NPPC. See Note 10, Employee Benefit Plans, for additional information.

Realized (gains) losses reclassified from accumulated other comprehensive loss in connection with loss on dilution and sale of equity method investment are as follows:

(In thousands)	Twelve Months Ended December 31 2016	Affected Caption on the Consolidated Statements of Operations
Foreign exchange translation adjustments	$ 45,405	Change in fair value to the adjustment liability and loss on dilution and sale of equity method investment
Cash flow hedging instruments	2,593	Change in fair value to the adjustment liability and loss on dilution and sale of equity method investment
Defined benefit pension obligations	(2,433)	Change in fair value to the adjustment liability and loss on dilution and sale of equity method investment
Total before tax	45,565	
Tax benefit (e)	(16,822)	
Total amounts reclassified from accumulated other comprehensive loss in connection with loss on dilution and sale of equity method investment	$ 28,743	

(e) For the year ended December 31, 2016 the tax benefit was not recognized on the Consolidated Statement of Operations since a valuation allowance was established against the resulting deferred tax assets. See Note 11, Income Taxes, for additional information.

19. Restructuring Programs

In recent years, the Company has instituted restructuring programs to balance short-term profitability goals with long-term strategies. A primary objective of these programs has been to establish platforms upon which the affected businesses can grow with reduced fixed investment and generate annual operating expense savings. The restructuring programs have been instituted in response to the continuing impact of global financial and economic uncertainty on the Company’s end markets. Restructuring costs incurred in these programs were recorded in, Other expenses, of the Consolidated Statements of Operations. The timing of associated cash payments is dependent on the type of restructuring cost and can extend over a multi-year period.

Project Orion

Under Project Orion, the Harsco Metals & Minerals Segment made organizational and process improvement changes that are expected to improve its return on capital and deliver a higher and more consistent level of service to customers. These changes include improving several core processes and simplifying the organizational structure. During the fourth quarter of 2015, Project Orion was expanded with additional targeted workforce and operational savings of $20 million to $25 million. The majority of these benefits have been realized in 2016.

The restructuring accrual for Project Orion at December 31, 2016 and 2015 and the activity for the years ended December 31, 2016 and 2015 were as follows:

(In thousands)	Employee Termination Benefit Costs
Balance January 1, 2015	$ 7,668
Expense incurred	5,070
Other adjustments	(1,003)
Cash expenditures	(5,854)
Foreign currency translation	(74)
Balance, December 31, 2015	5,807
Other adjustments	(47)
Cash expenditures	(5,413)
Foreign currency translation	29
Balance, December 31, 2016	$ 376

Two-Year Summary of Quarterly Results (Unaudited)
(In millions, except per share amounts)

	2016 (a)			
Quarterly	**First**	**Second**	**Third**	**Fourth**
Revenues	**$ 353.3**	**$ 369.9**	**$ 367.8**	**$ 360.2**
Gross profit (b)	**70.2**	**53.0**	**81.5**	**76.0**
Net loss attributable to Harsco Corporation	**(10.9)**	**(26.2)**	**(33.0)**	**(15.6)**
Basic loss per share attributable to Harsco Corporation common stockholders:				
Continuing operations	**$ (0.13)**	**$ (0.35)**	**$ (0.41)**	**$ (0.19)**
Discontinued operations (c)	**—**	**0.02**	**—**	**(0.01)**
Basic loss per share attributable to Harsco Corporation common stockholders	**$ (0.14)** (d)	**$ (0.33)**	**$ (0.41)**	**$ (0.19)** (d)
Diluted loss per share attributable to Harsco Corporation common stockholders:				
Continuing operations	**$ (0.13)**	**$ (0.35)**	**$ (0.41)**	**$ (0.19)**
Discontinued operations (c)	**—**	**0.02**	**—**	**(0.01)**
Diluted loss per share attributable to Harsco Corporation common stockholders	**$ (0.14)** (d)	**$ (0.33)**	**$ (0.41)**	**$ (0.19)** (d)

	2015 (a)			
Quarterly	**First**	**Second**	**Third**	**Fourth**
Revenues	$ 451.6	$ 455.7	$ 428.3	$ 387.4
Gross profit (b)	90.5	95.3	91.7	89.2
Net income (loss) attributable to Harsco Corporation	15.3	6.6	(8.7)	(7.0)
Basic earnings (loss) per share attributable to Harsco Corporation common stockholders:				
Continuing operations	$ 0.20	$ 0.08	$ (0.10)	$ (0.08)
Discontinued operations (c)	(0.01)	—	(0.01)	(0.01)
Basic earnings (loss) per share attributable to Harsco Corporation common stockholders	$ 0.19	$ 0.08	$ (0.11)	$ (0.09)
Diluted earnings (loss) per share attributable to Harsco Corporation common stockholders:				
Continuing operations	$ 0.20	$ 0.08	$ (0.10)	$ (0.08)
Discontinued operations (c)	(0.01)	—	(0.01)	(0.01)
Diluted earnings (loss) per share attributable to Harsco Corporation common stockholders	$ 0.19	$ 0.08	$ (0.11)	$ (0.09)

(a) Sum of the quarters may not equal the total year due to rounding.
(b) Gross profit is defined as Revenues less costs and expenses associated directly with or allocated to products sold or services rendered.
(c) Discontinued operations related principally to the Gas Technologies Segment which was sold in the fourth quarter of 2007.
(d) Does not total due to rounding.

Common Stock Price and Dividend Information
(Unaudited)

	Market Price Per Share				Dividends Declared Per Share
	High		Low		
2016					
First quarter	**$**	**7.75**	**$**	**3.55**	**$ —**
Second quarter		**7.56**		**5.00**	**—**
Third quarter		**11.18**		**6.55**	**—**
Fourth quarter		**15.25**		**9.05**	—
2015					
First quarter	$	19.12	$	14.50	$ 0.205
Second quarter		17.80		15.31	0.205
Third quarter		18.00		8.71	0.205
Fourth quarter		12.54		7.69	0.051

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

None.

Item 9A. Controls and Procedures.

Based on the evaluation required by Securities Exchange Act Rules 13a-15(b) and 15d-15(b), the Company's management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of disclosure controls and procedures, as defined in Securities Exchange Act Rules 13a-15(e) and 15d-15(e), at December 31, 2016. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective at December 31, 2016. There were no changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting during the fourth quarter of 2016.

Management's Report on Internal Controls Over Financial Reporting is included in Part II, Item 8, "Financial Statements and Supplementary Data." The effectiveness of the Company's internal control over financial reporting at December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in the Report of Independent Registered Public Accounting Firm appearing in Part II, Item 8, "Financial Statements and Supplementary Data."

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information regarding executive officers of the Company required by this Item is set forth as a Supplementary Item, titled "Executive Officers of the Registrant," at the end of Part I of this Annual Report on Form 10-K (pursuant to Instruction 3 to Item 401(b) of Regulation S-K) and is incorporated herein by reference. The other information required by this Item is incorporated herein by reference from the disclosures that will be included under the sections entitled "Corporate Governance," "Proposal 1: Election of Directors - Nominees for Director," "Meetings and Committees of the Board," "Report of the Audit Committee" and "Section 16(a) Beneficial Ownership Reporting Compliance" of the Company's Definitive Proxy Statement for its 2017 Annual Meeting of Stockholders (the "2017 Proxy Statement"), which will be filed pursuant to SEC Regulation 14A not later than 120 days after the end of the Company's fiscal year ended December 31, 2016.

The Company's Code of Conduct (the "Code"), which applies to all officers, directors and employees of the Company, may be found on the Company's Internet website, www.harsco.com. The Company intends to disclose on its website any amendments to the Code or any waiver from a provision of the Code granted to an executive officer or director of the Company. The Code is available in print, without charge, to any person who requests it. To request a copy of the Code please contact the Company's Senior Director—Corporate Communications at (717) 730-3683.

Item 11. Executive Compensation.

The information regarding compensation of executive officers and directors required by this Item is incorporated herein by reference from the disclosures that will be included under the sections entitled "Compensation Discussion and Analysis - Executive Summary," "Discussion and Analysis of 2016 Compensation" and "Non-Employee Director Compensation" of the 2017 Proxy Statement. The other information required by this Item is incorporated herein by reference from the disclosures that will be included under the sections entitled "Compensation Committee Interlocks and Insider Participation" and "Compensation Committee Report" of the 2017 Proxy Statement.

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

The information regarding security ownership of certain beneficial owners and management required by this Item is incorporated herein by reference from the disclosures that will be included under the section entitled "Share Ownership of Directors, Management and Certain Beneficial Owners" of the 2017 Proxy Statement.

Equity compensation plan information is incorporated herein by reference from the disclosures that will be included under the section entitled "Equity Compensation Plan Information (As of December 31, 2016)" of the 2017 Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information regarding certain relationships and related transactions required by this Item is incorporated herein by reference from the disclosures that will be included under the section entitled "Transactions with Related Persons" of the 2017 Proxy Statement. The information regarding director independence required by this Item is incorporated herein by reference from the disclosures that will be included under the section entitled "Corporate Governance" of the 2017 Proxy Statement.

Item 14. Principal Accounting Fees and Services.

The information regarding principal accounting fees and services required by this Item is incorporated herein by reference from the disclosures that will be included under the sections entitled "Report of the Audit Committee" and "Fees Billed by the Independent Auditors for Audit and Non-Audit Services" of the 2017 Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) 1. The Index to Consolidated Financial Statements and Supplementary Data is located under Part II, Item 8, "Financial Statements and Supplementary Data."

2. The following financial statement schedule should be read in conjunction with the Consolidated Financial Statements under Part II, Item 8, "Financial Statements and Supplementary Data":

Financial statement schedules other than that listed above are omitted because the required information is not applicable, or because the information required is included in the consolidated financial statements.

SCHEDULE II. VALUATION AND QUALIFYING ACCOUNTS

Continuing Operations

(In thousands)

COLUMN A	COLUMN B	COLUMN C	COLUMN D		COLUMN E
		Additions	Additions (Deductions)		
Description	Balance at Beginning of Period	Charged to Cost and Expenses	Due to Currency Translation Adjustments	Other	Balance at End of Period
For the year 2016:					
Allowance for Doubtful Accounts	**$ 25,649**	**$ (38)**	**$ (320)**	**$ (13,491)** (a)	**$ 11,800**
Deferred Tax Assets—Valuation Allowance	**110,680**	**38,490**	**(6,323)**	**3,250**	**146,097**
For the year 2015:					
Allowance for Doubtful Accounts	$ 15,119	$ 13,047	$ (1,585)	$ (932)	$ 25,649
Deferred Tax Assets—Valuation Allowance	131,422	13,175	(11,519)	(22,398) (b)	110,680
For the year 2014:					
Allowance for Doubtful Accounts	$ 6,638	$ 9,892	$ (969)	$ (442)	$ 15,119
Deferred Tax Assets—Valuation Allowance	127,164	24,332	(9,254)	(10,820)	131,422

(a) Includes the write-off of previously reserved accounts receivable balances.
(b) Includes a decrease of $16.1 million related to pension adjustments recorded through Accumulated other comprehensive loss and a $6.3 million decrease related to a U.K. tax rate change.

Listing of Exhibits Filed with Form 10-K

	Description of Exhibit
2(a)	Purchase Agreement, dated as of September 15, 2013, by and among Harsco Corporation, on behalf of itself and the other sellers named therein, Bullseye, Inc., on behalf of itself and the other buyers named therein, Bullseye Investors, Inc. and CD&R Bullseye Holdings, L.P. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2013, Commission File Number 001-03970). The registrant has omitted certain immaterial schedules and exhibits to this exhibit pursuant to the provisions of Regulation S-K, Item 601(b)(2). The registrant will furnish a copy of any of the omitted schedules and exhibits to the Securities and Exchange Commission upon request.
2(b)	Omnibus Agreement dated September 15, 2016 (incorporated by reference to the Company's Current Report on Form 8-K dated September 15, 2016, Commission file No. 001-03970).
3(a)	Restated Certificate of Incorporation (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2013, Commission File Number 001-03970).
3(b)	Certificate of Designation filed September 25, 1997 (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 1997, Commission File Number 001-03970).
3(c)	Certificate of Amendment to the Restated Certificate of Incorporation, dated April 29, 2015 (incorporated by reference to the Company's Current Report on Form 8-K/A dated May 22, 2015, Commission File Number 001-03970).
3(d)	By-laws, as amended October 28, 2014 (incorporated by reference to the Company's Current Report on Form 8-K dated October 28, 2014, Commission File Number 001-03970).
4(a)	Preferred Stock Purchase Rights Agreement (incorporated by reference to Registration Statement on Form 8-A dated October 2, 1987, Commission File Number 001-03970).
4(b)	Rights Agreement, dated as of September 25, 2007, by and between Harsco Corporation and Mellon Investor Services LLC, as Rights Agent (incorporated by reference to the Company's Current Report on Form 8-K dated September 26, 2007, Commission File Number 001-03970).
4(c)	Debt and Equity Securities (incorporated by reference to the Company's Registration Statement on Form S-3 dated December 15, 1994, Registration No. 33-56885).

Material Contracts—Credit and Underwriting Agreements	
10(a)(i)	Amended and Restated Five-Year Credit Agreement, dated March 2, 2012, among Harsco Corporation, the lenders named therein, Citibank, N.A., as administrative agent, RBS Securities Inc., as syndication agent, and the Bank of Tokyo-Mitsubishi UFJ, Ltd., HSBC Bank USA, National Association, ING Bank N.V., Dublin Branch, JPMorgan Chase Bank, N.A. and Lloyds TSB Bank PLC, as documentation agents (incorporated by reference to the Company's Current Report on Form 8-K dated March 7, 2012, Commission File No. 001-03970).
10(a)(ii)	Amendment No. 1, dated September 12, 2013, to the Amended and Restated Five-Year Credit Agreement, dated March 2, 2012, among Harsco Corporation, the lenders named therein, Citibank, N.A., as administrative agent, RBS Securities Inc., as syndication agent, and the Bank of Tokyo-Mitsubishi UFJ, Ltd., HSBC Bank USA, National Association, ING Bank N.V., Dublin Branch, JPMorgan Chase Bank, N.A. and Lloyds TSB Bank PLC, as documentation agents (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2013, Commission File Number 001-03970).
10(a)(iii)	Amendment No. 2, dated December 20, 2013, to the Amended and Restated Five-Year Credit Agreement, dated March 2, 2012, among Harsco Corporation, the lenders named therein, Citibank, N.A., as administrative agent, RBS Securities Inc., as syndication agent, and the Bank of Tokyo-Mitsubishi UFJ, Ltd., HSBC Bank USA, National Association, ING Bank N.V., Dublin Branch, JPMorgan Chase Bank, N.A. and Lloyds TSB Bank PLC, as documentation agents (incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014, Commission File Number 001-03970).
10(a)(iv)	Amendment No. 3, dated as of March 27, 2015, to the Amended and Restated Five-Year Credit Agreement among Harsco Corporation, a Delaware corporation, as Borrower, the Lenders party thereto and Citibank, N.A., as Administrative Agent (incorporated by reference to the Company's Current Report on Form 8-K filed April 1, 2015, Commission File Number 001-03970).
10(a)(v)	Amendment and Restatement Agreement, dated as of December 2, 2015, among Harsco Corporation, the subsidiaries of the Company party thereto, Citibank N.A., as administrative agent, the other agents party thereto and the lenders party thereto including Second Amended and Restated Credit Agreement, dated as of December 2, 2015, among Harsco Corporation, the lenders named therein, Citibank, N.A. and Royal Bank of Canada, as issuing lenders, and Citibank N.A., as administrative agent and as collateral agent (incorporated by reference to the Company's Current Report on Form 8-K dated December 4, 2015, Commission File No. 001-03970).

	Description of Exhibit
10(a)(vi)	Amendment and Restatement Agreement and First Amendment to Guarantee and Collateral Agreement, dated as of November 2, 2016, among the Company, the subsidiaries of the Company party thereto, Citibank N.A., as administrative agent and collateral agent and the lenders party thereto (incorporated by reference to the Company's Current Report on Form 8-K filed November 8, 2016, Commission file No. 001-03970).
Material Contracts—Management Contracts and Compensatory Plans	
10(b)	Harsco Corporation Supplemental Retirement Benefit Plan as amended and restated January 1, 2009 (incorporated by reference to the Company's Annual Report on Form 10-K, for the period ended December 31, 2008, Commission File Number 001-03970).
10(c)	Trust Agreement between Harsco Corporation and Dauphin Deposit Bank and Trust Company dated July 1, 1987 relating to the Supplemental Retirement Benefit Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 1987, Commission File Number 001-03970).
10(d)	Restricted Stock Units Agreement (incorporated by reference to the Company's Current Report on Form 8-K dated January 23, 2007, Commission File Number 001-03970).
10(e)	Restricted Stock Units Agreement for International Employees (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2007, Commission File Number 001-03970).
10(f)	Stock Option Contract (incorporated by reference to the Company's Current Report on Form 8-K dated January 31, 2011, Commission File Number 001-03970).
10(g)	Harsco Corporation 2013 Equity and Incentive Compensation Plan (incorporated by reference to the Company's Current Report on Form 8-K dated April 26, 2013, Commission File Number 001-03970).
10(h)	Harsco Corporation Form of Restricted Stock Units Agreement (effective for grants on and after May 10, 2013) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2013, Commission File Number 001-03970).
10(i)	Harsco Corporation Form of Stock Appreciation Rights Agreement (effective for grants on and after May 10, 2013) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2013, Commission File Number 001-03970).
10(j)(i)	Harsco Corporation 1995 Non-Employee Directors' Stock Plan as Amended and Restated at January 27, 2004 (incorporated by reference to Proxy Statement dated March 23, 2004 on Exhibit A, pages A-1 through A-9, Commission File Number 001-03970).
10(j)(ii)	Amendment No. 1 to the Harsco Corporation 1995 Non-Employee Directors' Stock Plan (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008, Commission File Number 001-03970).
10(k)	Harsco Corporation Form of Restricted Stock Units Agreement (Directors) (incorporated by reference to the Company's Current Report on Form 8-K dated April 26, 2005, Commission File Number 001-03970).
10(l)(i)	Harsco Corporation Deferred Compensation Plan for Non-Employee Directors (as Amended and Restated as of December 31, 2008) (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008, Commission File Number 001-03970).
10(l)(ii)	First Amendment to the Harsco Corporation Deferred Compensation Plan for Non Employee Directors.
10(m)	Settlement and Consulting Agreement (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2003, Commission File Number 001-03970).
10(n)	Harsco Non-Qualified Retirement Savings & Investment Plan Part B—Amendment and Restatement as of January 1, 2009 (incorporated by reference to the Company's Annual Report on Form 10-K for the period ended December 31, 2008, Commission File Number 001-03970).
10(o)	Form of Change in Control Severance Agreement (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2014, Commission File Number 001-03970).
10(p)	Notification Letter to F. Nicholas Grasberger, III dated March 20, 2013 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2013, Commission File Number 001-03970).
10(q)	Notification Letter to David Everitt dated March 14, 2014 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2014, Commission File Number 001-03970).
10(r)	Notification Letter to F. N. Grasberger dated April 8, 2014 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2014, Commission File Number 001-03970).
10(s)	Notification Letter to F. N. Grasberger dated August 1, 2014 (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2014, Commission File Number 001-03970).

	Description of Exhibit
10(t)	Form of Restricted Stock Units Agreement (effective for grants on or after April 28, 2014) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2014, Commission File Number 001-03970).
10(u)	Form of Stock Appreciation Rights Agreement (effective for grants on or after April 28, 2014) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2014, Commission File Number 001-03970).
10(v)	Form of Performance Share Units Agreement (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2014, Commission File Number 001-03970).
10(w)	Separation Agreement and General Release, dated May 11, 2015, between Harsco Corporation and A. Verona Dorch (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2015, Commission File Number 001-03970).
10(x)	Separation Agreement and General Release, dated August 5, 2015, between Harsco Corporation and Richard E. Lundgren, Jr. (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2015, Commission File Number 001-03970).
10(y)	Form of Performance Share Units Agreement (effective for grants on or after April 28, 2015) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2015, Commission File Number 001-03970).
10(z)	Form of Restricted Stock Units Agreement (effective for grants on or after April 28, 2015) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2015, Commission File Number 001-03970).
10(aa)	Form of Stock Appreciation Rights Agreement (effective for grants on or after April 28, 2015) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2015, Commission File Number 001-03970).
10(bb)	Separation Agreement and General Release, dated August 15, 2016, between Harsco Corporation and Scott W. Jacoby (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended September 30, 2016, Commission File Number 001-03970).
10(cc)(i)	2016 Non-Employee Directors' Long-Term Equity Compensation Plan (incorporated by reference to the Company's Form S-8 dated May 6, 2016, Commission File Number 001-03970).
10(cc)(ii)	First Amendment to 2016 Non-Employee Directors' Long-Term Equity Compensation Plan (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2016, Commission File Number 001-03970).
10(dd)	Form of Restricted Stock Units Agreement (Non-Employee Director) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended June 30, 2016, Commission File Number 001-03970).
10(ee)	Form of Performance Share Units Agreement (effective for grants on or after April 26, 2016) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, Commission File Number 001-03970).
10(ff)	Form of Restricted Stock Units Agreement (effective for grants on or after April 26, 2016) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, Commission File Number 001-03970).
10(gg)	Form of Stock Appreciation Rights Agreement (effective for grants on or after April 26, 2016) (incorporated by reference to the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, Commission File Number 001-03970).
10(hh)	Form of Performance Share Units Agreement (effective for grants on or after February 16, 2017).
10(ii)	Form of Restricted Stock Units Agreement (effective for grants on or after February 16, 2017).
10(jj)	Form of Stock Appreciation Rights Agreement (effective for grants on or after February 16, 2017).

Director Indemnity Agreements	
10(kk)(i)	K. G. Eddy (incorporated by reference to the Company's Current Report on Form 8-K dated August 27, 2004, Commission File Number 001-03970).
10(kk)(ii)	T. D. Growcock (incorporated by reference to the Company's Current Report on Form 8-K dated August 27, 2004, same as shown for K. G. Eddy, Commission File Number 001-03970).
10(kk)(iii)	S. E. Graham (incorporated by reference to the Company's Current Report on Form 8-K dated August 27, 2004, same as shown for K. G. Eddy, Commission File Number 001-03970).
10(kk)(iv)	D. C. Everitt (incorporated by reference to the Company's Current Report on Form 8-K dated August 27, 2004, same as shown for K. G. Eddy, Commission File Number 001-03970).

	Description of Exhibit
10(kk)(v)	J. F. Earl (incorporated by reference to the Company's Current Report on Form 8-K dated August 27, 2004, same as shown for K. G. Eddy, Commission File Number 001-03970).
10(kk)(vi)	E. La Roche (incorporated by reference to the Company's Current Report on Form 8-K dated August 27, 2004, same as shown for K. G. Eddy, Commission File Number 001-03970).
10(kk)(vii)	P. C. Widman (incorporated by reference to the Company's Current Report on Form 8-K dated August 27, 2004, same as shown for K. G. Eddy, Commission File Number 001-03970).
12	Computation of Ratios of Earnings to Fixed Charges.
21	Subsidiaries of the Registrant.
23	Consent of Independent Registered Public Accounting Firm.
31.1	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Chief Executive Officer).
31.2	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (Chief Financial Officer).
32	Certifications Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Chief Executive Officer and Chief Financial Officer).
101	The following financial statements from Harsco Corporation's Annual Report on Form 10-K for the year ended December 31, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets; (ii) the Consolidated Statements of Operations; (iii) the Consolidated Statements of Cash Flows; (iv) the Consolidated Statements of Changes in Equity; (v) the Consolidated Statements of Comprehensive Income (Loss) and (vi) the Notes to Consolidated Financial Statements.

Exhibits other than those listed above are omitted for the reason that they are either not applicable or not material.

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.

HARSCO CORPORATION
(Registrant)

DATE February 24, 2017

/s/ PETER F. MINAN
Peter F. Minan
Chief Financial Officer
(Principal Financial and Accounting Officer)

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

Signature	Capacity	Date
/s/ F. NICHOLAS GRASBERGER, III F. Nicholas Grasberger, III	President, Chief Executive Officer and Director (Principal Executive Officer)	February 24, 2017
/s/ PETER F. MINAN Peter F. Minan	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	February 24, 2017
/s/ DAVID C. EVERITT David C. Everitt	Non-Executive Chairman and Director	February 24, 2017
/s/ JAMES F. EARL James F. Earl	Director	February 24, 2017
/s/ KATHY G. EDDY Kathy G. Eddy	Director	February 24, 2017
/s/ STUART E. GRAHAM Stuart E. Graham	Director	February 24, 2017
/s/ TERRY D. GROWCOCK Terry D. Growcock	Director	February 24, 2017
/s/ ELAINE LA ROCHE Elaine La Roche	Director	February 24, 2017
/s/ PHILLIP C. WIDMAN Phillip C. Widman	Director	February 24, 2017

HARSCO CORPORATION

PERFORMANCE SHARE UNITS AGREEMENT
(FORM)

This PERFORMANCE SHARE UNITS AGREEMENT (this "***Agreement***") is made as of _________ ___, 20__, by and between Harsco Corporation, a Delaware corporation, and _________________ (the "***Grantee***").

1. **Certain Definitions**. Capitalized terms used, but not otherwise defined, in this Agreement will have the meanings given to such terms in the Company's 2013 Equity and Incentive Compensation Plan (the "***Plan***").

2. **Grant of PSUs**. Subject to and upon the terms, conditions and restrictions set forth in this Agreement, including, without limitation, **Exhibit A** attached hereto (the "***Non-Competition Agreement***"), and any additional terms and conditions for the Grantee's country (Grantees outside the United States only) set forth in the attached **Exhibit B** which forms part of this Agreement, and in the Plan, the Company has granted to the Grantee, as of _________ ___, 20__ (the "***Date of Grant***"), a target number of __________ performance-based Restricted Stock Units ("***PSUs***"). Notwithstanding anything in this **Section 2** or otherwise in this Agreement to the contrary, the Grantee acknowledges and agrees to be bound by the restrictive covenant terms, conditions and provisions in the Non-Competition Agreement as a "Grantee" as referred to therein.

3. **Restrictions on Transfer of PSUs**. Subject to **Section 15** of the Plan, neither the PSUs granted hereby nor any interest therein or in the Common Stock related thereto shall be transferable prior to payment to the Grantee pursuant to **Section 5** hereof other than by will or pursuant to the laws of descent and distribution.

4. **Vesting of PSUs**.

(a) Subject to the terms and conditions of **Section 4** and **Section 5** hereof and **Exhibit C** hereto, the Grantee's right to receive Common Stock in settlement of the PSUs shall become nonforfeitable with respect to (i) 0% to 200% of the PSUs on the basis of the RTSR achievement during the Performance Period as set forth in the Statement of Management Objectives attached hereto as **Exhibit C** (the "***Earned PSUs***"). The Earned PSUs will be determined on the date following the end of the Performance Period on which the Committee determines the level of attainment of the Management Objectives for the Performance Period, which date must occur within 60 days after the end of the Performance Period (the "***Committee Determination Date***"). Except as otherwise provided herein, the Grantee's right to receive Common Stock in settlement of the PSUs is contingent upon his or her remaining in the continuous employ of the Company or a Subsidiary until the end of the Performance Period.

(b) For purposes of this Agreement:

(i) "Continuously employed" (or substantially similar term) means the absence of any interruption or termination of the Grantee's employment with the Company or with a Subsidiary of the Company. Continuous employment shall not be considered interrupted or terminated in the case of sick leave, military leave or any other leave of absence approved by the Company or in the case of transfers between locations of the Company and its Subsidiaries;

(ii) "Management Objectives" means the threshold, target and maximum goals established by the Committee for the Performance Period with respect to RTSR, as described in the Statement of Management Objectives. No adjustment of the Management Objectives shall be permitted in respect of any PSUs granted to the Grantee if at the Date of Grant he or she is a Covered Employee if such adjustment would result in the PSUs failing to qualify as a Qualified Performance-Based Award.

(iii) "Performance Period" means the three-year period commencing January 1, 2017 and ending on December 31, 2019.

(iv) "Relative Total Stockholder Return" or "RTSR" has the meaning as set forth in the Statement of Management Objectives.

(c) Notwithstanding the other provisions of this **Section 4**:

(i) If the Grantee dies or becomes Disabled during any calendar year of the Performance Period while the Grantee is continuously employed by the Company or any of its Subsidiaries (the "***Death/Disability Year***"), provided that the PSUs have not previously been forfeited or become nonforfeitable at such time, then (notwithstanding anything in the Statement of Management Objectives to the contrary): (A) the Performance Period will be deemed to have ended on December 31 of the Death/Disability Year (the "***Death/Disability Measurement Date***"); (B) the PSUs will continue to be eligible to become nonforfeitable (and payable in accordance with **Section 5** hereof) as if the Grantee continued to be employed until the end of the Death/Disability Measurement Date; (C) the Earned PSUs will be determined based on RTSR achievement from the start of the Performance Period through the Death/Disability Measurement Date based on the S&P 600® Industrials Index as constituted on the Death/Disability Measurement Date; (D) the ending stock price for Total Stockholder Return determination purposes will be based on the average closing stock price for the 30 calendar days immediately preceding the January 1st immediately following the Death/Disability Measurement Date on the principal stock exchange on which the stock then trades; and (E) the Earned PSUs will be determined on the date following the Death/Disability Measurement Date on which the Committee determines the level of attainment of the Management Objectives for the shortened Performance Period, which date must occur within 60 days after the Death/Disability Measurement Date.

(ii) If the Grantee retires from the Company prior to the Committee Determination Date (A) at age 62 or older while continuously employed by the Company or any of its Subsidiaries or (B) at or after such time as the Grantee's age (minimum of age 55), plus full years of continuous employment by the Company or any of its Subsidiaries, equals 75, provided that the PSUs have not previously been forfeited or become nonforfeitable at such time, then the PSUs will continue to be eligible to become nonforfeitable in accordance with this **Section 4** (and payable in accordance with **Section 5** hereof) as if the Grantee continued to be employed until the end of the Performance Period.

(d)

(i) Notwithstanding **Section 4(a)** or **Section 4(c)** above, if at any time before the Committee Determination Date or forfeiture of the PSUs, and while the Grantee is continuously employed by the Company or a Subsidiary, a Change in Control occurs, provided that the PSUs have not previously been forfeited or become nonforfeitable at such time, then (except to the extent that a Replacement Award is provided to the Grantee in accordance with **Section 4(e)(ii)** to continue, replace or assume the PSUs covered by this Agreement (the "***Replaced Award***")) the PSUs will become nonforfeitable and payable to the Grantee in accordance with **Section 5** hereof as follows (notwithstanding anything in the Statement of Management Objectives to the contrary): (A) the Performance Period will be deemed to have ended on the date of the Change in Control (the "***CIC Measurement Date***"); (B) the Earned PSUs will be determined based on RTSR achievement from the start of the Performance Period through the CIC Measurement Date based on the S&P 600® Industrials Index as constituted on the CIC Measurement Date; (D) the ending stock price for Total Stockholder Return determination purposes will be based on the average closing stock price for the 30 calendar days immediately preceding the CIC Measurement Date on the principal stock exchange on which the stock then trades; and (E) the Earned PSUs will be determined on the date of the Change in Control.

(ii) For purposes of this Agreement, a "Replacement Award" means an award (A) of the same type (*e.g.*, performance-based restricted stock units) as the Replaced Award, (B) that has a value at least equal to the value of the Replaced Award, (C) that relates to publicly traded equity securities of the Company or its successor in the Change in Control or another entity that is affiliated with the Company or its successor following the Change in Control or is payable solely in cash, (D) if the Grantee holding the Replaced Award is subject to U.S. federal income tax under the Code, the tax consequences of which to such Grantee under the Code are not less favorable to such Grantee than the tax consequences of the Replaced Award, and (E) the other terms and conditions of which are not less favorable to the Grantee holding the Replaced Award than the terms and conditions of the Replaced Award (including the provisions that would apply in the event of a subsequent Change in Control). A Replacement Award may be granted only to the extent it does not result in the Replaced Award or Replacement Award failing to comply with or be exempt from Section 409A of the Code. Without limiting the generality of the foregoing, the Replacement Award may take the form of a continuation of the Replaced Award if the requirements of the two preceding sentences are satisfied. The determination of whether the conditions of this **Section 4(e)(ii)** are satisfied will be made by the Committee, as constituted immediately before the Change in Control, in its sole discretion.

(iii) If, upon receiving a Replacement Award, the Grantee's employment with the Company or a Subsidiary (or any of their successors) (as applicable, the "***Successor***") is subsequently terminated by the Grantee for Good Reason or by the Successor without Cause within a period of two years after the Change in Control, 100% of the Replacement Award will become nonforfeitable and payable with respect to the performance-based restricted stock units covered by such Replacement Award.

(iv) A termination by the Grantee for "Good Reason" means Grantee's termination of his or her employment with the Successor as a result of the occurrence of any of the following: (A) a change in the Grantee's principal location of employment that is greater than 50 miles from such location as of the date of this Agreement without the Grantee's consent; provided, however, that the Grantee hereby acknowledges that the Grantee may be required to engage in travel in connection with the performance of the Grantee's duties and that such travel shall not constitute a change in the Grantee's principal location of employment for purposes hereof; (B) a material diminution in the Grantee's base compensation; (C) a change in the Grantee's position with the Successor without the Grantee's consent such that there is a material diminution in the Grantee's authority, duties or responsibilities; or (D) any other action or inaction that constitutes a material breach by the Successor of the agreement, if any, under which the Grantee provides services to the Successor or its subsidiaries. Notwithstanding the foregoing, the Grantee's termination of the Grantee's employment with the Successor as a result of the occurrence of any of the foregoing shall not constitute a termination for "Good Reason" unless (X) the Grantee gives the Successor written notice of such occurrence within 90 days of such occurrence and such occurrence is not cured by the Successor within 30 days of the date on which such written notice is received by the Successor and (Y) the Grantee actually terminates his or her employment with the Successor prior to the 365th day following such occurrence.

(v) A termination by the Successor without "Cause" means the Successor's termination of the Grantee's employment with the Successor under circumstances that do not involve or relate to the occurrence of any of the following: (A) an act or acts of personal dishonesty taken by the Grantee and intended to result in substantial personal enrichment of the Grantee at the expense of the Company; (B) repeated failure by the Grantee to devote reasonable attention and time during normal business hours to the business and affairs of the Company or to use the Grantee's reasonable best efforts to perform faithfully and efficiently the responsibilities assigned to the Grantee (provided that such failure is demonstrated to be willful and deliberate on the Grantee's part and is not remedied in a reasonable period of time after receipt of written notice from the Company); or (C) the conviction of the Grantee of a felony.

(e) The PSUs shall be forfeited to the extent they fail to become nonforfeitable as of the Committee Determination Date and, except as otherwise provided in this **Section 4**, if the Grantee ceases to be employed by the Company or a Subsidiary at any time prior to such PSUs becoming nonforfeitable, or to the extent they are forfeited under **Section 16** hereof.

5. **Form and Time of Payment of Earned PSUs**.

(a) Payment for the PSUs, after and to the extent they have become nonforfeitable, shall be made in the form of shares of Common Stock. Payment shall be made within 70 days following the date that the PSUs become nonforfeitable pursuant to **Section 4** hereof.

(b) Except to the extent provided by Section 409A of the Code and permitted by the Committee, no Common Stock may be issued to the Grantee at a time earlier than otherwise expressly provided in this Agreement.

(c) The Company's obligations to the Grantee with respect to the PSUs will be satisfied in full upon the issuance of Common Stock corresponding to such PSUs.

6. **Dividend Equivalents, Voting, and Other Rights**.

(a) The Grantee shall have no rights of ownership in the Common Stock underlying the PSUs and no right to vote the Common Stock underlying the PSUs until the date on which the shares of Common Stock underlying the PSUs are issued or transferred to the Grantee pursuant to **Section 5** above.

(b) From and after the Date of Grant and until the earlier of (i) the time when the PSUs become nonforfeitable and are paid in accordance with **Section 5** hereof or (ii) the time when the Grantee's right to receive Common Stock in payment of the PSUs is forfeited in accordance with **Section 4** hereof, on the date that the Company pays a cash dividend (if any) to holders of Common Stock generally, the Grantee shall become entitled to receive (subject to the following sentence) a number of additional whole PSUs determined by dividing (x) the product of (1) the dollar amount of the cash dividend paid per share of Common Stock on such date and (2) the total number of PSUs (including dividend equivalents) previously credited to the Grantee as of such date, by (y) the Market Value per Share on such date. Such dividend equivalents (if any) shall be subject to the same terms and conditions and shall be paid or forfeited in the same manner and at the same time as the PSUs to which the dividend equivalents were credited.

(c) The obligations of the Company under this Agreement will be merely that of an unfunded and unsecured promise of the Company to deliver shares of Common Stock in the future, and the rights of the Grantee will be no greater than that of an unsecured general creditor. No assets of the Company will be held or set aside as security for the obligations of the Company under this Agreement.

7. **Adjustments**. The PSUs and their terms under this Agreement are subject to mandatory adjustment under the terms of Section 11 of the Plan.

8. **Withholding Taxes**. To the extent that the Company is required to withhold federal, state, local or foreign taxes in connection with the delivery to the Grantee of Common Stock or any other payment to the Grantee or any other payment or vesting event under this Agreement, the Grantee hereby authorizes withholding from payroll and any other amounts payable to the Grantee, including amounts payable hereunder, and otherwise agrees to make adequate provision for, any sums required to satisfy such tax withholding obligations of the Company. The Company shall have no obligation to make delivery or payment hereunder until the tax withholding obligations of the Company have been satisfied by the Grantee. If all or any part of such withholding requirement be satisfied by retention by the Company of a portion of the Common Stock to be delivered to the Grantee or by delivering to the Company other shares of Common Stock held by the Grantee, the shares so retained shall be credited against such withholding requirement at the Market Value per Share of such Common Stock on the date of such delivery. In no event will the market value of the Common Stock to be withheld and/or delivered pursuant to this **Section 8** to satisfy applicable withholding taxes exceed the minimum amount of taxes required to be withheld, unless otherwise agreed to by the Grantee, provided, however, that such amount shall not exceed the statutory maximum withholding rates.

9. **Compliance With Law**. The Company shall make reasonable efforts to comply with all applicable federal and state securities laws; provided, however, notwithstanding any other provision of the Plan and this Agreement, the Company shall not be obligated to issue any Common Stock pursuant to this Agreement if the issuance thereof would result in a violation of any such law.

10. **Compliance With Section 409A of the Code**. To the extent applicable, it is intended that this Agreement and the Plan comply with the provisions of Section 409A of the Code. This Agreement and the Plan shall be administered in a manner consistent with this intent, and any provision that would cause this Agreement or the Plan to fail to satisfy Section 409A of the Code shall have no force or effect until amended to comply with Section 409A of the Code (which amendment may be retroactive to the extent permitted by Section 409A of the Code and may be made by the Company without the consent of the Grantee).

11. **Interpretation**. Any reference in this Agreement to Section 409A of the Code will also include any proposed, temporary or final regulations, or any other guidance, promulgated with respect to such Section by the U.S. Department of the Treasury or the Internal Revenue Service. Except as expressly provided in this Agreement, capitalized terms used herein will have the meaning ascribed to such terms in the Plan.

12. **No Employment Rights**. The grant of the PSUs under this Agreement to the Grantee is a voluntary, discretionary award being made on a one-time basis and it does not constitute a commitment to make any future awards. The grant of the PSUs and any payments made hereunder will not be considered salary or other compensation for purposes of any severance pay or similar allowance, except as otherwise required by law. Nothing contained in this Agreement shall confer upon the Grantee any right to be employed or remain employed by the Company or any of its Subsidiaries, nor limit or affect in any manner the right of the Company or any of its Subsidiaries to terminate the employment or adjust the compensation of the Grantee.

13. **Relation to Other Benefits**. Any economic or other benefit to the Grantee under this Agreement or the Plan shall not be taken into account in determining any benefits to which the Grantee may be entitled under any profit-sharing, retirement or other benefit or compensation plan maintained by the Company or any of its Subsidiaries and shall not affect the amount of any life insurance coverage available to any beneficiary under any life insurance plan covering employees of the Company or any of its Subsidiaries.

14. **Amendments**. Any amendment to the Plan shall be deemed to be an amendment to this Agreement to the extent that the amendment is applicable hereto; provided, however, that (a) no amendment shall adversely affect the rights of the Grantee under this Agreement without the Grantee’s written consent, and (b) the Grantee’s consent shall not be required to an amendment that is deemed necessary by the Company to ensure compliance with Section 409A of the Code.

15. **Severability**. In the event that one or more of the provisions of this Agreement shall be invalidated for any reason by a court of competent jurisdiction, any provision so invalidated shall be deemed to be separable from the other provisions hereof, and the remaining provisions hereof shall continue to be valid and fully enforceable.

16. **Relation to Plan**. This Agreement is subject to the terms and conditions of the Plan. In the event of any inconsistency between the provisions of this Agreement and the Plan, the Plan shall govern. The Committee acting pursuant to the Plan, as constituted from time to time, shall, except as expressly provided otherwise herein or in the Plan, have the right to determine any questions which arise in connection with this Agreement. In addition, the PSUs shall be subject to the terms and conditions of the Company’s clawback policy in effect on the Date of Grant as if such PSUs were “Incentive-Based Compensation” (as such term is defined in such clawback policy).

17. **Successors and Assigns**. Without limiting **Section 3** hereof, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, administrators, heirs, legal representatives and assigns of the Grantee, and the successors and assigns of the Company.

18. **Acknowledgement**. The Grantee acknowledges that the Grantee (a) has received a copy of the Plan, (b) has had an opportunity to review the terms of this Agreement and the Plan, (c) understands the terms and conditions of this Agreement and the Plan and (d) agrees to such terms and conditions.

19. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same agreement.

[signature page follows]

IN WITNESS WHEREOF, the Company has caused this Agreement to be executed on its behalf by its duly authorized officer and the Grantee has executed this Agreement, effective as of the day and year first above written.

HARSCO CORPORATION

By: /s/ F. Nicholas Grasberger III
Name: F. Nicholas Grasberger III
Title: President and CEO

The undersigned hereby acknowledges receipt of an executed version of this Agreement and accepts the award of PSUs granted hereunder on the terms and conditions set forth herein and in the Plan (including the terms of the Non-Competition Agreement, attached hereto as **Exhibit A**).

GRANTEE

By: ______________
Name:

EXHIBIT A

Non-Competition Agreement

1. Grant. Grantee acknowledges that Grantee has access to the confidential and proprietary trade secret information of Harsco Corporation, including its subsidiaries, joint ventures, and operating divisions (the “Company”), as further described below (“Confidential/Proprietary Trade Secret Information”). Further, Grantee acknowledges that Grantee derives significant value from the Company and from the Confidential/Proprietary Trade Secret Information provided during the term of employment with the Company, which enables Grantee to optimize the performance of the Company’s performance and Grantee’s own personal, professional, and financial benefit. In consideration of the grant described in the award agreement (the “Agreement”) to which these terms, conditions and provisions (the “Non-Competition Agreement”) are attached as an exhibit, Grantee agrees that, during Grantee's employment by the Company, and for a period of twelve (12) months after the cessation of such employment for any reason (both such periods collectively referred to as the “Restricted Period”), Grantee will not, directly or indirectly, engage in any of the following competitive activities:

(a) For Grantee or on behalf of any other corporation, business, partnership, individual, or other entity, directly or indirectly solicit, divert, contract with, or attempt to solicit, divert, or contract with, any customer with whom Grantee had Material Contact during the final two (2) years of Grantee’s employment with the Company concerning any products or services that are similar to those that Grantee was responsible for or were otherwise involved with during Grantee’s employment with the Company. For purposes of this Non-Competition Agreement, the Grantee will have had “Material Contact” with a customer if: (i) Grantee had business dealings with the customer on the Company’s behalf; (ii) Grantee was responsible for supervising or coordinating the dealings between the Company and the customer; or (iii) Grantee obtained Confidential/Proprietary Trade Secret Information about the customer as a result of Grantee’s association with the Company;

(b) Within the geographic territory where Grantee was employed by the Company, obtained knowledge of Confidential/Proprietary Trade Secret Information, or had contact with the Company's customers, become employed by or otherwise render services to (as a director, employee, contractor or consultant) or have any ownership interest in any business which is engaged in offering the same or similar products or services as, or otherwise competes with those Company, including its subsidiaries and operating unit(s) with which Grantee was employed or in any way involved during the last twelve (12) months of employment with the Company; or

(c) (i) induce, offer, assist, encourage or suggest that another business or enterprise offer employment to or enter into a consulting arrangement with any employee, agent or representative of the Company or (ii) induce, offer, assist, encourage or suggest that any employee, agent or representative of the Company, including its subsidiaries and joint ventures, terminate his or her employment or business affiliation with the Company or accept employment with any other business or enterprise.

(d) Confidential/Proprietary Trade Secret Information.

(i) Grantee agrees to keep secret and confidential all Confidential/Proprietary Trade Secret Information (further described below) acquired by Grantee while employed by the Company or concerning the business and affairs of the Company, its vendors, its customers, and its affiliates (whether of a business, commercial or technological nature), and further agrees that Grantee will not disclose any such Confidential/Proprietary Trade Secret Information so acquired to any individual, partner, company, firm, corporation or other person or use the same in any manner other than in connection with the business and affairs of the Company and its affiliates. Except in the performance of services for the Company, the Grantee will not, for so long as the Confidential/Proprietary Trade Secret Information remains so designated under applicable law, use, disclose, reproduce, distribute, transmit, reverse engineer, decompile, disassemble, or transfer the Confidential/Proprietary Trade Secret Information or any portion thereof.

(ii) For purposes of this Non-Competition Agreement, “Confidential/Proprietary Trade Secret Information” includes all information of a confidential or proprietary nature that relates to the business, products, services, research or development of the Company, and its affiliates or their respective suppliers, distributors, customers, independent contractors or other business relations. Confidential/Proprietary Trade Secret Information also includes, but is not limited to, the following: (A) internal business information (including information relating to strategic and staffing plans and practices, business, training, financial, marketing, promotional and sales plans and practices, cost, rate and pricing structures, accounting and business methods and customer and supplier lists); (B) identities of, individual requirements of, specific contractual arrangements with and information about, the Company’s suppliers, distributors, customers, independent contractors or other business relations and their confidential information; (C) trade secrets, copyrightable works and other confidential information (including ideas, formulas, recipes, compositions, inventions, innovations, improvements, developments, methods, know-how, manufacturing and production processes and techniques, research and development information, compilations of data and analyses, data and databases relating thereto, techniques, systems, records, manuals, documentation, models, drawings, specifications, designs, plans, proposals, reports and all similar or related information whether patentable or unpatentable and whether or not reduced to practice); (D) other intellectual property rights of the Company, or any of its affiliates; and (E) any other information that would constitute a trade secret under the Pennsylvania Uniform Trade Secrets Act, as amended from time to time (or any successor). The term “Confidential/Proprietary Trade Secret Information” also includes any information or data described above which the Company obtains from another party and which the Company treats as proprietary or designates as trade secrets, whether or not owned or developed by the Company.

(iii) All documents and materials supplied to Grantee or developed by Grantee in the course of, or as a result of Grantee’s employment at the Company whether in hard copy, electronic format or otherwise shall be the sole property of the Company. Grantee will at any time upon the request of the Company and in any event promptly upon termination of Grantee’s employment or relationship with the Company, but in any event no later than five (5) business days after such termination, deliver all such materials to the Company and will not retain any originals or copies of such materials, whether in hard copy form or as computerized and/or electronic records. Except to the extent approved by the Company or required by Grantee’s bona fide job duties for the Company, the Grantee also agrees that Grantee will not copy or remove from the Company’s place of business or the place of business of a customer of the Company, property or information belonging to the Company or the customer or entrusted to the Company or the customer. In addition, the Grantee agrees that Grantee will not provide any such materials to any competitor of or entity seeking to compete with the Company unless specifically approved in writing by the Company. Notwithstanding anything in paragraph 1(d)(3) of this Non-Competition Agreement to the contrary, if the Company needs to take legal action to secure such return delivery of such materials, Grantee shall be responsible for all legal fees, costs and expenses incurred by the Company in doing so.

2. Subsequent Employment.

(a) Advise the Company of New Employment. In the event of a cessation of Grantee’s employment with the Company, and during the Restricted Period described in paragraph 1 above, Grantee agrees to disclose to the Company, the name and address of any new employer or business affiliation within ten (10) calendar days of Grantee’s accepting such position. In the event that Grantee fails to notify the Company of such new employment or business affiliation as required above, the Restricted Period will be extended by a period equal to the period of nondisclosure.

(b) Grantee’s Ability to Earn Livelihood. Grantee acknowledges that, in the event of a cessation of Grantee’s employment with the Company, for any reason and at any time, the provisions of paragraph 1 of this Non-Competition Agreement will not unreasonably restrict Grantee’s ability to earn a living. Grantee and the Company acknowledge that Grantee’s rights have been limited by this Non-Competition Agreement only to the extent reasonably necessary to protect the legitimate interests of the Company in its Confidential/Proprietary Trade Secret Information.

3. Enforcement. Grantee agrees that if Grantee violates the covenants and agreements set forth in this Non-Competition Agreement, the Company would suffer irreparable harm, and that such harm to the Company may be impossible to measure in monetary damages. Accordingly, in addition to any other remedies which the Company may have at law or in equity, the Company will have the right to have all obligations, undertakings, agreements, covenants and other provisions of this Non-Competition Agreement specifically performed by Grantee, and the Company will have the right to obtain preliminary and permanent injunctive relief to secure specific performance, and to prevent a breach or contemplated breach, of this Non-Competition Agreement. In such event, the Company will be entitled to an accounting and repayment of all profits, compensation, remunerations or benefits which Grantee or others, directly or indirectly, have realized or may realize as a result of, growing out of, or in conjunction with any violation of this Non-Competition Agreement. Such remedies will be an addition to and not in limitation of any injunctive relief or other rights or remedies to which the Company is or may be entitled at law or in equity. In the event that the Company obtains any requested relief in any action brought to enforce the terms of this Non-Competition Agreement through court proceedings, the Company will be entitled to reimbursement for all legal fees, costs and expenses incident to enforcement.

4. Severability. If any section, paragraph, term or provision of this Non-Competition Agreement, or the application thereof, is determined by a competent court or tribunal to be invalid or unenforceable, then the other parts of such section, paragraph, term or provision will not be affected thereby and will be given full force and effect without regard to the invalid or unenforceable portions, and the section, paragraph, term or provision of this Non-Competition Agreement will be deemed modified to the extent necessary to render it valid and enforceable.

5. Miscellaneous.

(a) Employment.

(i) This Non-Competition Agreement does not constitute a guarantee of employment and termination of employment will not affect the enforceability of this Non-Competition Agreement.

(ii) Grantee agrees that if Grantee is transferred from the entity or division which was Grantee’s employer at the time Grantee signed this Non-Competition Agreement to employment by another division or another company that is a subsidiary or affiliate of Harsco Corporation, and Grantee has not entered into a superseding agreement with the new employer covering the subject matter of this Non-Competition Agreement, then this Non-Competition Agreement will continue in effect and the Grantee’s new employer will be termed “the Company” for all purposes hereunder and will have the right to enforce this Non-Competition Agreement as Grantee’s employer. In the event of any subsequent transfer, Grantee’s new employer will succeed to all rights under this Non-Competition Agreement so long as such employer will be Harsco Corporation or one of its subsidiaries or affiliates and so long as this Non-Competition Agreement has not been superseded.

(b) Headings. The headings contained in this Non-Competition Agreement are inserted for convenience of reference only, and will not be deemed to be a part of this Non-Competition Agreement for any purposes, and will not in any way define or affect the meaning, construction or scope of any of the provisions of this Non-Competition Agreement.

(c) Governing Law. This Non-Competition Agreement will be construed under the laws of the Commonwealth of Pennsylvania, without regard to its conflict of law provisions, and the parties consent and agree that the federal and state courts of the Commonwealth of Pennsylvania will have exclusive jurisdiction over any dispute relating to this Non-Competition Agreement.

(d) Supplemental Nature of this Non-Competition Agreement. The restrictions set forth in paragraph 1 of this Non-Competition Agreement will be in addition to any other such restrictive covenants agreed to through separate agreements, if any, between Grantee and the Company and will survive the exercise of the equity award evidenced by the Agreement.

(e) Waiver. The failure by the Company to enforce any right or remedy available to it under this Non-Competition Agreement will not be construed to be a waiver of such right or remedy with respect to any other prior, concurrent or subsequent breach or failure. No waiver of rights under this Non-Competition Agreement will be effective unless made in writing with specific reference to this Non-Competition Agreement.

(f) Notification. Grantee agreed that the Company may notify any third party about Grantee's obligations under this Non-Competition Agreement until such time as Grantee has performed all of Grantee's obligations hereunder. Upon the Company's request, Grantee agrees to provide the Company with information, including, but not limited to, supplying details of Grantee's subsequent employment, sufficient to verify that Grantee has not breached, or is not breaching, any covenant in this Non-Competition Agreement.

(g) Acknowledgments.

(i) Grantee acknowledges and agrees that this Non-Competition Agreement is in consideration of, (A) the grant evidenced by the Agreement, (B) access to Confidential/Proprietary Trade Secret Information, as required by Grantee's job duties, and (C) access to important customer relationships and the associated customer goodwill of the Company.

(ii) Grantee acknowledges that he or she has carefully read and considered the provisions of this Non-Competition Agreement, and that this Non-Competition Agreement is reasonable as to time and scope and activities prohibited, given the Company's need to protect its interests and given the consideration provided to Grantee in the form of the grant evidenced by the Agreement.

(iii) Grantee acknowledges that he or she has had an opportunity to consult with an independent legal counsel of Grantee's choosing, and accept the grant contained in the Agreement and continuing employment on the terms set forth in this Non-Competition Agreement.

EXHIBIT B

Additional Terms and Conditions for International Employees

TERMS AND CONDITIONS

This Exhibit B (this "Exhibit"), which is part of the Agreement, contains additional terms and conditions that govern the PSUs granted to the Grantee under the Plan if he or she resides outside the United States. The terms and conditions in Part A apply to *all* Grantees outside the United States. The country-specific terms and conditions and/or notifications in Part B will also apply to the Grantee if he or she resides in one of the countries listed below. Unless otherwise defined, capitalized terms used but not defined in this Exhibit have the meanings set forth in the Plan and/or the Agreement.

NOTIFICATIONS

This Exhibit also includes information regarding exchange controls and certain other issues of which the Grantee should be aware with respect to participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the respective countries as of February 2016. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Grantee not rely on the information in this Exhibit as the only source of information relating to the consequences of his or her participation in the Plan because the information may be out of date at the time that the Grantee vests in the PSUs or sell shares of Common Stock acquired under the Plan.

In addition, the information contained herein is general in nature and may not apply to the Grantee's particular situation, and the Company is not in a position to assure the Grantee of a particular result. Accordingly, the Grantee is advised to seek appropriate professional advice as to how the relevant laws in his or her country may apply to the Grantee's situation.

Finally, if the Grantee is a citizen or resident, or is considered a resident, of a country other than the one in which he or she is currently working, or transferred employment after the PSUs were granted to him or her, the information contained herein may not be applicable. In addition, the Company shall, in its sole discretion, determine to what extent the additional terms and conditions included herein will apply to you under these circumstances.

A. ALL NON-U.S. COUNTRIES ADDITIONAL TERMS AND CONDITIONS

The following additional terms and conditions will apply to the Grantee if he or she resides in any country outside the United States.

Responsibility for Taxes. The following section replaces Section 8 of the Agreement in its entirety:

The Grantee acknowledges that, regardless of any action taken by the Company or, if different, the Grantee's employer (the "Employer"), the ultimate liability for all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to the Grantee's participation in the Plan and legally applicable to the Grantee ("Tax-Related Items") is and remains the Grantee's responsibility and may exceed the amount actually withheld by the Company or the Employer. The Grantee further acknowledges that the Company and/or the Employer (1) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the PSU, including, but not limited to, the grant, vesting or settlement of the PSUs, the subsequent sale of shares of Common Stock acquired pursuant to such settlement and the receipt of any dividends and/or any dividend equivalents; and (2) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the PSUs to reduce or eliminate the Grantee's liability for Tax-Related Items or achieve any particular tax result. Further, if the Grantee is subject to Tax-Related Items in more than one jurisdiction between the Date of Grant and the date of any relevant taxable or tax withholding event, as applicable, the Grantee acknowledges that the Company and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to any relevant taxable or tax withholding event, as applicable, the Grantee agrees to make adequate arrangements satisfactory to the Company and/or the Employer to satisfy all Tax-Related Items. In this regard, the Grantee authorizes the Company and/or the Employer to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following methods: (i) requiring payment by the Grantee to the Company, on demand, by cash, check or other method of payment as may be determined acceptable by the Company; or (ii) withholding from the Grantee's wages or other cash compensation paid to the Grantee by the Company and/or the Employer; or (iii) withholding from proceeds of the sale of shares of Common Stock acquired at vesting of the PSUs either through a voluntary sale or through a mandatory sale arranged by the Company (on the Grantee's behalf pursuant to this authorization) without further consent; or (ii) withholding shares of Common Stock issuable at vesting of the PSUs.

Depending on the withholding method, the Company and/or the Employer may withhold or account for Tax-Related Items by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates, in which case the Grantee will receive a refund of any over-withheld amount in cash and will have no entitlement to the Common Stock equivalent. If the obligation for Tax-Related Items is satisfied by withholding in shares of Common Stock, for tax purposes, the Grantee is deemed to have been issued the full number of shares of Common Stock subject to the vested PSUs, notwithstanding that a number of the shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items.

Finally, the Grantee agrees to pay the Company or the Employer any amount of Tax-Related Items that the Company or the Employer may be required to withhold or account for as a result of the Grantee's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the shares or the proceeds of the sale of shares of Common Stock, if the Grantee fails to comply with the Grantee's obligations in connection with the Tax-Related Items.

Nature of Grant. In accepting the grant, the Grantee acknowledges, understands and agrees that: (1) the Plan is established voluntarily by the Company, it is discretionary in nature and it may be modified, amended, suspended or terminated by the Company at any time, to the extent permitted by the Plan; (2) all decisions with respect to future PSU or other grants, if any, will be at the sole discretion of the Company; (3) the Grantee is voluntarily participating in the Plan; (4) the PSU and the shares of Common Stock subject to the PSU are not intended to replace any pension rights or compensation; (5) the future value of the underlying shares of Common Stock is unknown, indeterminable and cannot be predicted with certainty; (6) no claim or entitlement to compensation or damages shall arise from forfeiture of the PSUs resulting from the termination of the Grantee's employment or other service relationship (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Grantee is employed or the terms of the Grantee's employment agreement, if any), and in consideration of the grant of the PSUs to which the Grantee is otherwise not entitled, the Grantee irrevocably agrees never to institute any claim against the Company, any of its Subsidiaries or the Employer, waives the Grantee's ability, if any, to bring any such claim, and releases the Company, its Subsidiaries and the Employer from any such claim; if, notwithstanding the foregoing, any such claim is allowed by a court of competent jurisdiction, then, by participating in the Plan, the Grantee shall be deemed irrevocably to have agreed not to pursue such claim and agree to execute any and all documents necessary to request dismissal or withdrawal of such claim; (7) for purposes of the PSUs, the Grantee's employment or service relationship will be considered terminated as of the date the Grantee is no longer actively providing services to the Company or one of its Subsidiaries (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any) and unless otherwise expressly provided in these Terms and Conditions or determined by the Company, the Grantee's right to vest in the PSUs under the Plan, if any, will terminate as of such date and will not be extended by any notice period (*e.g*., the Grantee's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any); the Company shall have the exclusive discretion to determine when the Grantee is no longer actively providing services for purposes of the Grantee's PSU grant (including whether the Grantee may still be considered to be providing services while on an approved leave of absence); (8) unless otherwise provided in the Plan or by the Company in its discretion, the PSUs and the benefits evidenced by these Terms and Conditions do not create any entitlement to have the PSUs or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; (9) the PSUs and the shares of Common Stock subject to the PSUs, and the income and value of same, are not part of normal or expected compensation for any purpose, including, without limitation, calculating severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement or welfare benefits or similar payments; and (10) the Grantee acknowledges and agrees that neither the Company, the Employer nor any subsidiary or affiliate of the Company shall be liable for any foreign exchange rate fluctuation between the Grantee's local currency and the United States Dollar that may affect the value of the PSUs or of any amounts due to the Grantee pursuant to the settlement of the PSUs or the subsequent sale of any shares of Common Stock acquired upon settlement.

No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Grantee's participation in the Plan, or the Grantee's acquisition or sale of the underlying shares of Common Stock. The Grantee is hereby advised to consult with the Grantee's own personal tax, legal and financial advisors regarding the Grantee's participation in the Plan before taking any action related to the Plan.

Data Privacy. The Grantee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, including email, of the Grantee's personal data as described in the Agreement and any other PSU grant materials ("Data") by and among, as applicable, the Employer, the Company and its subsidiaries and affiliates for the exclusive purpose of implementing, administering and managing the Grantee's participation in the Plan.
The Grantee understands that the Company and the Employer may hold certain personal information about the Grantee, including, but not limited to, the Grantee's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any shares of stock or directorships held in the Company, details of all PSUs or any other entitlement to shares of stock awarded, canceled, exercised, vested, unvested or outstanding in the Grantee's favor, for the exclusive purpose of implementing, administering and managing the Plan.

The Grantee understands that Data will be transferred to the Company's stock transfer agent and/or broker, or such other stock plan service provider as may be selected by the Company in the future, which is assisting the Company with the implementation, administration and management of the Plan. The Grantee understands that the recipients of the Data may be located in the United States or

elsewhere (including outside the EEA), and that the recipients' country (e.g., the United States) may have different data privacy laws and protections than the Grantee's country. The Grantee understands that the Grantee may request a list with the names and addresses of any potential recipients of the Data by contacting the Grantee's local human resources representative. The Grantee authorizes the Company, the Company's stock transfer agent and/or broker, and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purpose of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that Data will be held only as long as is necessary to implement, administer and manage the Grantee's participation in the Plan. The Grantee understands that the Grantee may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing the Grantee's local human resources representative. Further, the Grantee understands that the Grantee is providing the consents herein on a purely voluntary basis. If the Grantee does not consent, or if the Grantee later seeks to revoke the Grantee's consent, the Grantee's employment status or service and career with the Employer will not be adversely affected; the only adverse consequence of refusing or withdrawing the Grantee's consent is that the Company would not be able to grant the Grantee PSUs or other equity awards or administer or maintain such awards. Therefore, the Grantee understands that refusing or withdrawing the Grantee's consent may affect the Grantee's ability to participate in the Plan. For more information on the consequences of the Grantee's refusal to consent or withdrawal of consent, the Grantee understands that the Grantee may contact the Grantee's local human resources representative.

Governing Law and Venue. The PSU grant and the provisions of the Agreement are governed by, and subject to, the internal substantive laws of the State of Delaware, United States of America (with the exception of its conflict of law provisions).

For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by this grant or the Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the Commonwealth of Pennsylvania in the United States of America and agree that such litigation shall be conducted only in the courts of Cumberland County, the Commonwealth of Pennsylvania, or the federal courts for the United States of America for the Middle District of Pennsylvania, and no other courts, where this grant is made and/or to be performed.

Compliance with Law. The following section supplements Section 9 of the Agreement:
Notwithstanding any other provision of the Plan or the Agreement, unless there is an available exemption from any registration, qualification or other legal requirement applicable to the shares of Common Stock, the Company shall not be required to deliver any shares issuable upon settlement of the PSUs prior to the completion of any registration or qualification of the shares under any local, state, federal or foreign securities or exchange control law or under rulings or regulations of the U.S. Securities and Exchange Commission ("SEC") or of any other governmental regulatory body, or prior to obtaining any approval or other clearance from any local, state, federal or foreign governmental agency, which registration, qualification or approval the Company shall, in its absolute discretion, deem necessary or advisable. The Grantee understands that the Company is under no obligation to register or qualify the shares with the SEC or any state or foreign securities commission or to seek approval or clearance from any governmental authority for the issuance or sale of the shares. Further, the Grantee agrees that Company shall have unilateral authority to amend the Plan and the Agreement without the Grantee's consent to the extent necessary to comply with securities or other laws applicable to issuance of shares.

Language. If the Grantee has received the Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means, including email. The Grantee hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

Severability. The provisions of these Terms and Conditions are severable and if any one or more provisions are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.

Imposition of Other Requirements. Subject to Section 14 of the Agreement, the Company reserves the right to impose other requirements on the Grantee's participation in the Plan, on the PSUs and on any shares of Common Stock acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require the Grantee to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

Waiver. The Grantee acknowledges that a waiver by the Company of breach of any provision of these Terms and Conditions shall not operate or be construed as a waiver of any other provision of these Terms and Conditions, or of any subsequent breach by the Grantee or any other Participant.

B. COUNTRY-SPECIFIC ADDITIONAL TERMS AND CONDITIONS AND NOTIFICATIONS

AUSTRALIA

TERMS AND CONDITIONS

Settlement of PSUs. Notwithstanding anything to the contrary in the Agreement, due to local regulatory requirements, upon the vesting of the PSUs, the Grantee will receive a cash payment in an amount equal to the value of the shares of Common Stock underlying the vested PSUs on the vesting date. As long as the Grantee resides in Australia, he or she may not receive or hold shares of Common Stock in connection with the PSUs under the Plan. Accordingly, any provisions in the Agreement referring to issuance of shares of Common Stock shall not be applicable to the Grantee as long as he or she resides in Australia.

NOTIFICATIONS

Exchange Control Information. Exchange control reporting is required for cash transactions exceeding $10,000 and international fund transfers. The Australian bank assisting with the transaction will file the report. If there is no Australian bank involved in the transfer, Grantee will be required to file the report.

BELGIUM

NOTIFICATIONS

Tax Reporting Information. Grantee is required to report any bank accounts opened and maintained outside of Belgium on his or her annual Belgian tax return.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the PSUs, the Grantee acknowledges that he or she agrees to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the vesting of the PSUs, the receipt of any dividends, and the sale of shares of Common Stock acquired under the Plan.

NOTIFICATIONS

Exchange Control Information. If the Grantee is resident or domiciled in Brazil, he or she will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights is equal to or greater than US $100,000. Assets and rights that must be reported include shares of Common Stock.

CHINA

TERMS AND CONDITIONS

Settlement of PSUs. Notwithstanding anything to the contrary in the Agreement, due to local regulatory requirements, upon the vesting of the PSUs, the Grantee will receive a cash payment in China via the Company's local Chinese payroll in an amount equal to the value of the shares of Common Stock underlying the vested PSUs on the vesting date. As long as the Grantee resides in China, he or she may not receive or hold shares of Common Stock in connection with the PSUs under the Plan. Accordingly, any provisions in the Agreement referring to issuance of shares of Common Stock shall not be applicable to the Grantee as long as he or she resides in China.

FRANCE

TERMS AND CONDITIONS

Consent to Receive Information in English. By accepting the grant of the PSUs, the Grantee confirms having read and understood the Plan and the Agreement, which were provided in the English language. The Grantee accepts the terms of those documents accordingly.

En acceptant cette attribution gratuite d'actions, le Grantee confirme avoir lu et compris le Plan et ce Contrat, incluant tous leurs termes et conditions, qui ont été transmis en langue anglaise. Le Grantee accepte les dispositions de ces documents en connaissance de cause.

NOTIFICATIONS

Tax Notification. The PSUs are not intended to be French tax-qualified. Please be aware that the Company intends that any outstanding PSUs granted to you pursuant to the 1995 Executive Incentive Compensation Plan Sub-plan for Restricted Stock Units Granted to Participants in France will continue to meet the requirements for qualified status under French law; therefore, different terms and conditions will apply to such outstanding PSUs. Please refer to the Restricted Stock Unit Agreement for Employees in France applicable to your grant for further details.

Exchange Control Notification. The Grantee may hold shares of Common Stock acquired under the Plan outside of France provided that he or she declares all foreign accounts (including any accounts that were opened or closed during the tax year) on his or her annual French income tax return.

INDIA

TERMS AND CONDITIONS

The Grantee hereby agrees that it shall hold the shares of the Common Stock pursuant to this Agreement and the Plan, at all times in accordance with the applicable laws in India, including but not limited to the (Indian) Foreign Exchange Management (Transfer or Issue of Any Foreign Security) Regulations, 2004 (and as amended or replaced), relevant master circulars, directions, notifications issued in this regard by the Reserve Bank of India from time to time and shall carry out the necessary reporting with the Reserve Bank of India at all stages of granting and vesting, if and as may be required. The Grantee agrees to indemnify the Company and/or Subsidiary of the Company with respect to any non-compliance and/or non-adherence by the Grantee of any of the applicable laws in India arising out of holding of the shares of the Common Stock by the Grantee.

The Grantee shall declare the holding of shares of the Common Stock, if and as may be necessary, in its income for taxation purposes and agrees to indemnify the Company and/or Subsidiary of the Company with respect to any and all taxes that it shall be obligated to pay with respect to the shares of the Common Stock such as including but not limited to income tax, capital gain taxes etc., under this Agreement and which may arise as a result of the sale of the shares of the Common Stock and the transactions contemplated hereunder.

LUXEMBOURG

NOTIFICATIONS

Exchange Control Information. Grantee understands that Grantee is required to report any inward remittances of funds to the Banque Centrale de Luxembourg and/or the Service Central de la Statistique et des Études Économiques within 15 working days following the month during which the transaction occurred unless such payment is reported by a Luxembourg-resident financial institution.

THE NETHERLANDS

TERMS AND CONDITIONS

Non-Competition Agreement. The non-competition agreement entered into between the Company and the Grantee shall be in addition to any non-compete arrangements between the Grantee and his or her employer.

SWITZERLAND

TERMS AND CONDITIONS

Vesting: With the acceptance of a Grant, the Grantee expressly acknowledges that any RSU, PSU and/or SAR shall not give the Grantee any right or entitlement until such Grant is fully vested. The Grant remains fully discretionary until full vesting.

Continuous Employment: In Switzerland, “continuously employed” (or substantially similar term) means the absence of any interruption or termination (issuance of termination notice) of the Grantee’s employment with the Company or with a Subsidiary of the Company. Continuous employment shall not be considered interrupted or terminated in the case of sick leave, military leave or any other leave of absence approved by the Company for which compensation needs to be paid by the Company or salary replacement benefits are granted by any insurance or in the case of transfers between locations of the Company and its Subsidiaries. For the avoidance of any doubt, continuous employment ends in any case with the end of the employment, even if any salary replacement benefits continue to be paid by any insurance, pension scheme or social security.

Retirement: For the purpose of the Plan, only a retirement under the rules and conditions of the Swiss pension scheme of the Subsidiary employing the Grantee shall qualify as retirement for the purpose of vesting of RSU, PSU or termination of SAR, and only if such retirements is (A) at age 62 or older while employed by the Company or any of its Subsidiaries; or (B) at or after such time as the Grantee's age (minimum of age 55), plus full years of continuous employment by the Company or any of its Subsidiaries, equals 75.

Disability: For purposes of the Plan, the Grantee shall be considered "Disabled" if the Grantee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or qualifies as permanent full disability under the applicable Swiss social security and/or pension laws

Non-Competition Agreement: For the avoidance of any doubt, any non-competition agreement entered into between the Grantee and the Company in connection with the Plan and grants thereunder shall be in addition to any non-competition agreement agreed between the Grantee and the employing Subsidiary and shall not replace such non-competition agreement.

NOTIFICATIONS

Exchange Control Notification. The Grantee may hold shares of Common Stock acquired under the Plan outside of Switzerland provided that he or she declares all foreign accounts (including any accounts that were opened or closed during the tax year) on his or her annual Swiss tax declaration.

<u>UNITED ARAB EMIRATES</u>

NOTIFICATIONS

Securities Law Notice. PSUs under the Plan are granted only to select executive officers and other employees of the Company and its subsidiaries for the purpose of providing such eligible persons with incentives and rewards for performance. The Agreement, including this Exhibit, the Plan and any documents the Grantee may receive in connection with the PSUs are intended for distribution to such eligible persons and must not be delivered to, or relied on, by any other person.

The Emirates Securities and Commodities Authority, the Central Bank, the Ministry of Economy and the Dubai Department of Economic Development do not have any responsibility for reviewing or verifying any documents in connection with the Plan nor have they reviewed or approved the Plan or the Agreement. The securities to which this statement relates may be illiquid and/or subject to restrictions on their resale. The Grantee and/or prospective purchasers of the securities offered should conduct their own due diligence on the securities.

If the Grantee does not understand the contents of the Agreement, including this Exhibit, or the Plan, the Grantee should consult an authorized financial adviser.

<u>UNITED KINGDOM</u>

TERMS AND CONDITIONS

U.K. Sub-Plan. The terms of the U.K. Sub-plan apply to the PSUs.

EXHIBIT C

Statement of Management Objectives

This Statement of Management Objectives applies to the performance-based Restricted Stock Units granted to the Grantee on the Date of Grant and applies with respect to the Performance Share Units Agreement between the Company and the Grantee (the "***Agreement***"). Capitalized terms used in the Agreement that are not specifically defined in this Statement of Management Objectives have the meanings assigned to them in the Agreement or in the Plan, as applicable.

Section 1. Definitions. For purposes hereof:

- "***Peer Group***" means S&P 600® Industrials Index.
- "***Relative Total Stockholder Return***" or "***RTSR***" means the percentile rank of the Company's Total Stockholder Return among the Total Stockholder Returns of all members of the Peer Group, ranked in descending order, at the end of the Performance Period.
- "***Total Stockholder Return***" means, with respect to the Common Stock and the common stock of each of the members of the Peer Group, a rate of return reflecting stock price appreciation, plus the reinvestment of dividends in additional shares of stock on the ex-dividend date, from the beginning of the Performance Period through the end of the Performance Period. For purposes of calculating Total Stockholder Return for each of the Company and the members of the Peer Group, the beginning stock price will be based on the average closing stock price for the 30 calendar days immediately preceding January 1, 2016 on the principal stock exchange on which the stock then traded and the ending stock price will be based on the average closing stock price for the 30 calendar days immediately preceding January 1, 2019 on the principal stock exchange on which the stock then trades.

Section 2. Performance Matrix.

From 0% to 200% of the PSUs will be earned based on achievement of the Management Objectives measured by RTSR during the Performance Period as follows:

Performance Level	Relative Total Stockholder Return	PSUs Earned
Below Threshold	Ranked below 25th percentile	0%
Threshold	Ranked at 25th percentile	25%
Target	Ranked at 50th percentile	100%
Maximum	Ranked at or above 75th percentile	200%

Notwithstanding anything in this Statement of Management Objectives or the Agreement to the contrary, no PSUs will be earned by the Grantee if Total Stockholder Return for the Company for the Performance Period is negative.

Section 3. Number of PSUs Earned. Following the Performance Period, on the Committee Determination Date, the Committee shall determine whether and to what extent the goals relating to the Management Objectives have been satisfied for the Performance Period and shall determine the number of PSUs that shall become nonforfeitable hereunder and under the Agreement on the basis of the following:

- Below Threshold. If, upon the conclusion of the Performance Period, RTSR for the Performance Period falls below the threshold level, as set forth in the Performance Matrix, no PSUs shall become nonforfeitable.

- Threshold. If, upon the conclusion of the Performance Period, RTSR for the Performance Period equals the threshold level, as set forth in the Performance Matrix, 25% of the PSUs (rounded down to the nearest whole number of PSUs) shall become nonforfeitable.
- Between Threshold and Target. If, upon the conclusion of the Performance Period, RTSR for the Performance Period exceeds the threshold level, but is less than the target level, as set forth in the Performance Matrix, a percentage between 25% and 100% (determined on the basis of straight-line mathematical interpolation) of the PSUs (rounded down to the nearest whole number of PSUs) shall become nonforfeitable.
- Target. If, upon the conclusion of the Performance Period, RTSR for the Performance Period equals the target level, as set forth in the Performance Matrix, 100% of the PSUs shall become nonforfeitable.
- Between Target and Maximum. If, upon the conclusion of the Performance Period, RTSR for the Performance Period exceeds the target level, but is less than the maximum level, as set forth in the Performance Matrix, a percentage between 100% and 200% (determined on the basis of straight-line mathematical interpolation) of the PSUs (rounded down to the nearest whole number of PSUs) shall become nonforfeitable.
- Equals or Exceeds Maximum. If, upon the conclusion of the Performance Period, RTSR for the Performance Period equals or exceeds the maximum level, as set forth in the Performance Matrix, 200% of the PSUs shall become nonforfeitable.

Before all or any portion of any Qualified Performance-Based Award of PSUs shall become nonforfeitable or paid in accordance with this Statement of Management Objectives or the Agreement, the Committee shall determine in writing that the Management Objectives have been satisfied.

HARSCO CORPORATION

RESTRICTED STOCK UNITS AGREEMENT
(FORM)

This RESTRICTED STOCK UNITS AGREEMENT (this "***Agreement***") is made as of _________ ___, 20__, by and between Harsco Corporation, a Delaware corporation, and _________________ (the "***Grantee***").

1. **Certain Definitions**. Capitalized terms used, but not otherwise defined, in this Agreement will have the meanings given to such terms in the Company's 2013 Equity and Incentive Compensation Plan (the "***Plan***").

2. **Grant of RSUs**. Subject to and upon the terms, conditions and restrictions set forth in this Agreement, including, without limitation, **Exhibit A** attached hereto (the "***Non-Competition Agreement***"), and any additional terms and conditions for the Grantee's country (Grantees outside the United States only) set forth in the attached **Exhibit B** which forms part of this Agreement, and in the Plan the Company has granted to the Grantee, as of _________ ___, 20__ (the "***Date of Grant***"), __________ Restricted Stock Units ("***RSUs***"). Each RSU shall represent the right of the Grantee to receive one share of Common Stock subject to and upon the terms and conditions of this Agreement. Notwithstanding anything in this **Section 2** or otherwise in this Agreement to the contrary, the Grantee acknowledges and agrees to be bound by the restrictive covenant terms, conditions and provisions in the Non-Competition Agreement as a "Grantee" as referred to therein.

3. **Restrictions on Transfer of RSUs**. Subject to **Section 15** of the Plan, neither the RSUs granted hereby nor any interest therein or in the Common Stock related thereto shall be transferable prior to payment to the Grantee pursuant to **Section 5** hereof other than by will or pursuant to the laws of descent and distribution.

4. **Vesting of RSUs**. [Subject to the terms and conditions of this Agreement and the Plan, the RSUs covered by this Agreement shall vest as described in this Section. One-third of the RSUs shall vest on the first anniversary of the Date of Grant if the Grantee remains in the continuous employ of the Company or one of its Subsidiaries from the Date of Grant through such first anniversary. An additional one-third of the RSUs shall vest on each subsequent anniversary of the Date of Grant, through the third anniversary of the Date of Grant, when 100% of the RSUs shall vest, if the Grantee remains in the continuous employ of the Company or one of its Subsidiaries from the Date of Grant through each such anniversary.]

(a) The RSUs covered by this Agreement shall vest and become nonforfeitable and payable to the Grantee pursuant to **Section 5** hereof as follows, provided you have continuously been employed with the Company or a Subsidiary through such respective Vesting Date:

Percentage of RSU Vesting	Vesting Date
33.3%	(a) One Year from Grant Date
33.3%	(b) Two Years from Grant Date
33.3%	(c) Three Years From Grant Date

Any RSUs that do not so become nonforfeitable on a Vesting Date will be forfeited, including, except as provided in **Section 4(b)** or **Section 4(d)** below, if the Grantee ceases to be continuously employed by the Company or a Subsidiary prior to a Vesting Date. For purposes of this Agreement, "continuously employed" (or substantially similar term) means the absence of any interruption or termination of the Grantee's employment with the Company or with a Subsidiary of the Company. Continuous employment shall not be considered interrupted or terminated in the case of sick leave, military leave or any other leave of absence approved by the Company or in the case of transfers between locations of the Company and its Subsidiaries.

(b) Notwithstanding **Section 4(a)** above, all of the RSUs shall become nonforfeitable and payable to the Grantee pursuant to **Section 5** hereof upon the occurrence of any of the following events (each, a "***Paying Event***") at a time when the RSUs have not been forfeited (to the extent the RSUs have not previously become nonforfeitable):

(i) the Grantee's death or becoming Disabled while the Grantee is continuously employed by the Company or any of its Subsidiaries; or

(ii) the Grantee's retirement (A) at age 62 or older while continuously employed by the Company or any of its Subsidiaries; or (B) at or after such time as the Grantee's age (minimum of age 55), plus full years of continuous employment by the Company or any of its Subsidiaries, equals 75.

(c) For purposes of this **Section 4**, the Grantee shall be considered "Disabled" if the Grantee is: (i) unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, or (ii) by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, receiving income replacement benefits for a period of not less than three months under an accident and health plan covering employees of the Company.

(d)

(i) Notwithstanding **Section 4(a)** above, if at any time before a Vesting Date or forfeiture of the RSUs, and while the Grantee is continuously employed by the Company or a Subsidiary, a Change in Control occurs, then the unvested RSUs will become nonforfeitable and payable to the Grantee in accordance with **Section 5** hereof, except to the extent that a Replacement Award is provided to the Grantee in accordance with **Section 4(d)(ii)** to continue, replace or assume the RSUs covered by this Agreement (the "***Replaced Award***").

(ii) For purposes of this Agreement, a "Replacement Award" means an award (A) of the same type (*e.g.*, time-based restricted stock units) as the Replaced Award, (B) that has a value at least equal to the value of the Replaced Award, (C) that relates to publicly traded equity securities of the Company or its successor in the Change in Control or another entity that is affiliated with the Company or its successor following the Change in Control or is payable solely in cash, (D) if the Grantee holding the Replaced Award is subject to U.S. federal income tax under the Code, the tax consequences of which to such Grantee under the Code are not less favorable to such Grantee than the tax consequences of the Replaced Award, and (E) the other terms and conditions of which are not less favorable to the Grantee holding the Replaced Award than the terms and conditions of the Replaced Award (including the provisions that would apply in the event of a subsequent Change in Control). A Replacement Award may be granted only to the extent it does not result in the Replaced Award or Replacement Award failing to comply with or be exempt from Section 409A of the Code. Without limiting the generality of the foregoing, the Replacement Award may take the form of a continuation of the Replaced Award if the requirements of the two preceding sentences are satisfied. The determination of whether the conditions of this **Section 4(d)(ii)** are satisfied will be made by the Committee, as constituted immediately before the Change in Control, in its sole discretion.

(iii) If, upon receiving a Replacement Award, the Grantee's employment with the Company or a Subsidiary (or any of their successors) (as applicable, the "***Successor***") is subsequently terminated by the Grantee for Good Reason or by the Successor without Cause within a period of two years after the Change in Control, 100% of the Replacement Award will become nonforfeitable and payable with respect to the time-based restricted stock units covered by such Replacement Award.

(iv) A termination by the Grantee for "Good Reason" means Grantee's termination of his or her employment with the Successor as a result of the occurrence of any of the following: (A) a change in the Grantee's principal location of employment that is greater than 50 miles from such location as of the date of this Agreement without the Grantee's consent; provided, however, that the Grantee hereby acknowledges that the Grantee may be required to engage in travel in connection with the performance of the Grantee's duties and that such travel shall not constitute a change in the Grantee's principal location of employment for purposes hereof; (B) a material diminution in the Grantee's base compensation; (C) a change in the Grantee's position with the Successor without the Grantee's consent such that there is a material diminution in the Grantee's authority, duties or responsibilities; or (D) any other action or inaction that constitutes a material breach by the Successor of the agreement, if any, under which the Grantee provides services to the Successor or its subsidiaries. Notwithstanding the foregoing, the Grantee's termination of the Grantee's employment with the Successor as a result of the occurrence of any of the foregoing shall not constitute a termination for "Good Reason" unless (X) the Grantee gives the Successor written notice of such occurrence within 90 days of such occurrence and such occurrence is not cured by the Successor within 30 days of the date on which such written notice is received by the Successor and (Y) the Grantee actually terminates his or her employment with the Successor prior to the 365th day following such occurrence.

(v) A termination by the Successor without "Cause" means the Successor's termination of the Grantee's employment with the Successor under circumstances that do not involve or relate to the occurrence of any of the following: (A) an act or acts of personal dishonesty taken by the Grantee and intended to result in substantial personal enrichment of the Grantee at the expense of the Company; (B) repeated failure by the Grantee to devote reasonable attention and time during normal business hours to the business and affairs of the Company or to use the Grantee's reasonable best efforts to perform faithfully and efficiently the responsibilities assigned to the Grantee (provided that such failure is demonstrated to be willful and deliberate on the Grantee's part and is not remedied in a reasonable period of time after receipt of written notice from the Company); or (C) the conviction of the Grantee of a felony.

5. **Form and Time of Payment of RSUs**.

(a) Payment for the RSUs, after and to the extent they have become nonforfeitable, shall be made in the form of shares of Common Stock. Except as provided in **Section 5(b)** or **5(c)**, payment shall be made within 10 days following the date that the RSUs become nonforfeitable pursuant to **Section 4** hereof.

(b) If the RSUs become nonforfeitable (i) by reason of the occurrence of a Change in Control as described in **Section 4(d)**, and if the Change in Control does not constitute a “change in control” for purposes of Section 409A(a)(2)(A)(v) of the Code, or (ii) by reason of a termination of the Grantee’s employment by reason of retirement, and if such termination does not constitute a “separation from service” for purposes of Section 409A(a)(2)(A)(i) of the Code, then payment for RSUs will be made upon the earliest of (v) the Grantee’s “separation from service” with the Company and its Subsidiaries (determined in accordance with Section 409A(a)(2)(A)(i) of the Code), (w) the Vesting Date for such RSUs, (x) the Grantee’s death, (y) the occurrence of a Change in Control that constitutes a “change in control” for purposes of Section 409A(a)(2)(A)(v) of the Code, or (z) the Grantee’s becoming Disabled.

(c) If the RSUs become payable on the Grantee’s “separation from service” with the Company and its Subsidiaries within the meaning of Section 409A(a)(2)(A)(i) of the Code (including by reason of the Grantee’s retirement as described in **Section 4(b)(ii)**, due to the termination of the Grantee’s employment under the conditions specified in **Section 4(d)(iii)** of this Agreement or by reason of **Section 5(b)**) and the Grantee is a “specified employee” as determined pursuant to procedures adopted by the Company in compliance with Section 409A of the Code, then payment for the RSUs shall be made on the earlier of the first day of the seventh month after the date of the Grantee’s “separation from service” with the Company and its Subsidiaries within the meaning of Section 409A(a)(2)(A)(i) of the Code or the Grantee’s death.

(d) Except to the extent provided by Section 409A of the Code and permitted by the Committee, no Common Stock may be issued to the Grantee at a time earlier than otherwise expressly provided in this Agreement.

(e) The Company’s obligations to the Grantee with respect to the RSUs will be satisfied in full upon the issuance of Common Stock corresponding to such RSUs.

6. **Dividend Equivalents; Voting and Other Rights**.

(a) The Grantee shall have no rights of ownership in the Common Stock underlying the RSUs and no right to vote the Common Stock underlying the RSUs until the date on which the shares of Common Stock underlying the RSUs are issued or transferred to the Grantee pursuant to **Section 5** above.

(b) From and after the Date of Grant and until the earlier of (i) the time when the RSUs become nonforfeitable and are paid in accordance with **Section 5** hereof or (ii) the time when the Grantee’s right to receive Common Stock in payment of the RSUs is forfeited in accordance with **Section 4** hereof, on the date that the Company pays a cash dividend (if any) to holders of Common Stock generally, the Grantee shall be entitled to a current cash payment equal to the value of the product of (x) the dollar amount of the cash dividend paid per share of Common Stock on such date and (y) the total number of RSUs covered by this Agreement. Such dividend equivalents (if any) shall be paid in cash during the vesting period for the RSUs.

(c) The obligations of the Company under this Agreement will be merely that of an unfunded and unsecured promise of the Company to deliver shares of Common Stock in the future, and the rights of the Grantee will be no greater than that of an unsecured general creditor. No assets of the Company will be held or set aside as security for the obligations of the Company under this Agreement.

7. **Adjustments**. The RSUs are subject to mandatory adjustment under the terms of Section 11 of the Plan.

8. **Withholding Taxes**. To the extent that the Company is required to withhold federal, state, local or foreign taxes in connection with the delivery to the Grantee of Common Stock or any other payment to the Grantee or any other payment or vesting event under this Agreement, the Grantee hereby authorizes withholding from payroll and any other amounts payable to the Grantee, including amounts payable hereunder, and otherwise agrees to make adequate provision for, any sums required to satisfy such tax withholding obligations of the Company. The Company shall have no obligation to make delivery or payment hereunder until the tax withholding obligations of the Company have been satisfied by the Grantee. If all or any part of such withholding requirement be satisfied by retention by the Company of a portion of the Common Stock to be delivered to the Grantee or by delivering to the Company other shares of Common Stock held by the Grantee, the shares so retained shall be credited against such withholding requirement at the Market Value per Share of such Common Stock on the date of such delivery. In no event will the market value of the Common Stock to be withheld and/or delivered pursuant to this **Section 8** to satisfy applicable withholding taxes exceed the minimum amount of taxes required to be withheld, unless otherwise agreed to by the Grantee, provided, however, that such amount shall not exceed the statutory maximum withholding rates.

9. **Compliance With Law**. The Company shall make reasonable efforts to comply with all applicable federal and state securities laws; provided, however, notwithstanding any other provision of the Plan and this Agreement, the Company shall not be obligated to issue any Common Stock pursuant to this Agreement if the issuance thereof would result in a violation of any such law.

10. **Compliance With Section 409A of the Code**. To the extent applicable, it is intended that this Agreement and the Plan comply with the provisions of Section 409A of the Code. This Agreement and the Plan shall be administered in a manner consistent with this intent, and any provision that would cause this Agreement or the Plan to fail to satisfy Section 409A of the Code shall have no force or effect until amended to comply with Section 409A of the Code (which amendment may be retroactive to the extent permitted by Section 409A of the Code and may be made by the Company without the consent of the Grantee).

11. **Interpretation**. Any reference in this Agreement to Section 409A of the Code will also include any proposed, temporary or final regulations, or any other guidance, promulgated with respect to such Section by the U.S. Department of the Treasury or the Internal Revenue Service. Except as expressly provided in this Agreement, capitalized terms used herein will have the meaning ascribed to such terms in the Plan.

12. **No Employment Rights**. The grant of the RSUs under this Agreement to the Grantee is a voluntary, discretionary award being made on a one-time basis and it does not constitute a commitment to make any future awards. The grant of the RSUs and any payments made hereunder will not be considered salary or other compensation for purposes of any severance pay or similar allowance, except as otherwise required by law. Nothing contained in this Agreement shall confer upon the Grantee any right to be employed or remain employed by the Company or any of its Subsidiaries, nor limit or affect in any manner the right of the Company or any of its Subsidiaries to terminate the employment or adjust the compensation of the Grantee.

13. **Relation to Other Benefits**. Any economic or other benefit to the Grantee under this Agreement or the Plan shall not be taken into account in determining any benefits to which the Grantee may be entitled under any profit-sharing, retirement or other benefit or compensation plan maintained by the Company or any of its Subsidiaries and shall not affect the amount of any life insurance coverage available to any beneficiary under any life insurance plan covering employees of the Company or any of its Subsidiaries.

14. **Amendments**. Any amendment to the Plan shall be deemed to be an amendment to this Agreement to the extent that the amendment is applicable hereto; provided, however, that (a) no amendment shall adversely affect the rights of the Grantee under this Agreement without the Grantee's written consent, and (b) the Grantee's consent shall not be required to an amendment that is deemed necessary by the Company to ensure compliance with Section 409A of the Code.

15. **Severability**. In the event that one or more of the provisions of this Agreement shall be invalidated for any reason by a court of competent jurisdiction, any provision so invalidated shall be deemed to be separable from the other provisions hereof, and the remaining provisions hereof shall continue to be valid and fully enforceable.

16. **Relation to Plan**. This Agreement is subject to the terms and conditions of the Plan. In the event of any inconsistency between the provisions of this Agreement and the Plan, the Plan shall govern. The Committee acting pursuant to the Plan, as constituted from time to time, shall, except as expressly provided otherwise herein or in the Plan, have the right to determine any questions which arise in connection with this Agreement. In addition, the RSUs shall be subject to the terms and conditions of the Company's clawback policy in effect on the Date of Grant as if such RSUs were "Incentive-Based Compensation" (as such term is defined in such clawback policy).

17. **Successors and Assigns**. Without limiting **Section 3** hereof, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, administrators, heirs, legal representatives and assigns of the Grantee, and the successors and assigns of the Company.

18. **Acknowledgement**. The Grantee acknowledges that the Grantee (a) has received a copy of the Plan, (b) has had an opportunity to review the terms of this Agreement and the Plan, (c) understands the terms and conditions of this Agreement and the Plan and (d) agrees to such terms and conditions.

19. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same agreement.

[signature page follows]

IN WITNESS WHEREOF, the Company has caused this Agreement to be executed on its behalf by its duly authorized officer and the Grantee has executed this Agreement, effective as of the day and year first above written.

HARSCO CORPORATION

By: /s/ F. Nicholas Grasberger III
Name: F. Nicholas Grasberger III
Title: President and CEO

The undersigned hereby acknowledges receipt of an executed version of this Agreement and accepts the award of RSUs granted hereunder on the terms and conditions set forth herein and in the Plan (including the terms of the Non-Competition Agreement, attached hereto as **Exhibit A**).

GRANTEE

By: ______________
Name:

EXHIBIT A

Non-Competition Agreement

1. Grant. Grantee acknowledges that Grantee has access to the confidential and proprietary trade secret information of Harsco Corporation, including its subsidiaries, joint ventures, and operating divisions (the “Company”), as further described below (“Confidential/Proprietary Trade Secret Information”). Further, Grantee acknowledges that Grantee derives significant value from the Company and from the Confidential/Proprietary Trade Secret Information provided during the term of employment with the Company, which enables Grantee to optimize the performance of the Company’s performance and Grantee’s own personal, professional, and financial benefit. In consideration of the grant described in the award agreement (the “Agreement”) to which these terms, conditions and provisions (the “Non-Competition Agreement”) are attached as an exhibit, Grantee agrees that, during Grantee's employment by the Company, and for a period of twelve (12) months after the cessation of such employment for any reason (both such periods collectively referred to as the “Restricted Period”), Grantee will not, directly or indirectly, engage in any of the following competitive activities:

(a) For Grantee or on behalf of any other corporation, business, partnership, individual, or other entity, directly or indirectly solicit, divert, contract with, or attempt to solicit, divert, or contract with, any customer with whom Grantee had Material Contact during the final two (2) years of Grantee’s employment with the Company concerning any products or services that are similar to those that Grantee was responsible for or were otherwise involved with during Grantee’s employment with the Company. For purposes of this Non-Competition Agreement, the Grantee will have had “Material Contact” with a customer if: (i) Grantee had business dealings with the customer on the Company’s behalf; (ii) Grantee was responsible for supervising or coordinating the dealings between the Company and the customer; or (iii) Grantee obtained Confidential/Proprietary Trade Secret Information about the customer as a result of Grantee’s association with the Company;

(b) Within the geographic territory where Grantee was employed by the Company, obtained knowledge of Confidential/Proprietary Trade Secret Information, or had contact with the Company's customers, become employed by or otherwise render services to (as a director, employee, contractor or consultant) or have any ownership interest in any business which is engaged in offering the same or similar products or services as, or otherwise competes with those Company, including its subsidiaries and operating unit(s) with which Grantee was employed or in any way involved during the last twelve (12) months of employment with the Company; or

(c) (i) induce, offer, assist, encourage or suggest that another business or enterprise offer employment to or enter into a consulting arrangement with any employee, agent or representative of the Company or (ii) induce, offer, assist, encourage or suggest that any employee, agent or representative of the Company, including its subsidiaries and joint ventures, terminate his or her employment or business affiliation with the Company or accept employment with any other business or enterprise.

(d) Confidential/Proprietary Trade Secret Information.

(i) Grantee agrees to keep secret and confidential all Confidential/Proprietary Trade Secret Information (further described below) acquired by Grantee while employed by the Company or concerning the business and affairs of the Company, its vendors, its customers, and its affiliates (whether of a business, commercial or technological nature), and further agrees that Grantee will not disclose any such Confidential/Proprietary Trade Secret Information so acquired to any individual, partner, company, firm, corporation or other person or use the same in any manner other than in connection with the business and affairs of the Company and its affiliates. Except in the performance of services for the Company, the Grantee will not, for so long as the Confidential/Proprietary Trade Secret Information remains so designated under applicable law, use, disclose, reproduce, distribute, transmit, reverse engineer, decompile, disassemble, or transfer the Confidential/Proprietary Trade Secret Information or any portion thereof.

(ii) For purposes of this Non-Competition Agreement, “Confidential/Proprietary Trade Secret Information” includes all information of a confidential or proprietary nature that relates to the business, products, services, research or development of the Company, and its affiliates or their respective suppliers, distributors, customers, independent contractors or other business relations. Confidential/Proprietary Trade Secret Information also includes, but is not limited to, the following: (A) internal business information (including information relating to strategic and staffing plans and practices, business, training, financial, marketing, promotional and sales plans and practices, cost, rate and pricing structures, accounting and business methods and customer and supplier lists); (B) identities of, individual requirements of, specific contractual arrangements with and information about, the Company’s suppliers, distributors, customers, independent contractors or other business relations and their confidential information; (C) trade secrets, copyrightable works and other confidential information (including ideas, formulas, recipes, compositions, inventions, innovations, improvements, developments, methods, know-how, manufacturing and production processes and techniques, research and development information, compilations of data and analyses, data and databases relating thereto, techniques, systems, records, manuals, documentation, models, drawings, specifications, designs, plans, proposals, reports and all similar or related information whether patentable or unpatentable and whether or not reduced to practice); (D) other intellectual property rights of the Company, or any of its affiliates; and (E) any other information that would constitute a trade secret under the Pennsylvania Uniform Trade Secrets Act, as amended from time to time (or any successor). The term “Confidential/Proprietary Trade Secret Information” also includes any information or data described above which the Company obtains from another party and which the Company treats as proprietary or designates as trade secrets, whether or not owned or developed by the Company.

(iii) All documents and materials supplied to Grantee or developed by Grantee in the course of, or as a result of Grantee’s employment at the Company whether in hard copy, electronic format or otherwise shall be the sole property of the Company. Grantee will at any time upon the request of the Company and in any event promptly upon termination of Grantee’s employment or relationship with the Company, but in any event no later than five (5) business days after such termination, deliver all such materials to the Company and will not retain any originals or copies of such materials, whether in hard copy form or as computerized and/or electronic records. Except to the extent approved by the Company or required by Grantee’s bona fide job duties for the Company, the Grantee also agrees that Grantee will not copy or remove from the Company’s place of business or the place of business of a customer of the Company, property or information belonging to the Company or the customer or entrusted to the Company or the customer. In addition, the Grantee agrees that Grantee will not provide any such materials to any competitor of or entity seeking to compete with the Company unless specifically approved in writing by the Company. Notwithstanding anything in paragraph 1(d)(3) of this Non-Competition Agreement to the contrary, if the Company needs to take legal action to secure such return delivery of such materials, Grantee shall be responsible for all legal fees, costs and expenses incurred by the Company in doing so.

2. <u>Subsequent Employment.</u>

(a) <u>Advise the Company of New Employment</u>. In the event of a cessation of Grantee’s employment with the Company, and during the Restricted Period described in paragraph 1 above, Grantee agrees to disclose to the Company, the name and address of any new employer or business affiliation within ten (10) calendar days of Grantee’s accepting such position. In the event that Grantee fails to notify the Company of such new employment or business affiliation as required above, the Restricted Period will be extended by a period equal to the period of nondisclosure.

(b) <u>Grantee’s Ability to Earn Livelihood</u>. Grantee acknowledges that, in the event of a cessation of Grantee’s employment with the Company, for any reason and at any time, the provisions of paragraph 1 of this Non-Competition Agreement will not unreasonably restrict Grantee’s ability to earn a living. Grantee and the Company acknowledge that Grantee’s rights have been limited by this Non-Competition Agreement only to the extent reasonably necessary to protect the legitimate interests of the Company in its Confidential/Proprietary Trade Secret Information.

3. Enforcement. Grantee agrees that if Grantee violates the covenants and agreements set forth in this Non-Competition Agreement, the Company would suffer irreparable harm, and that such harm to the Company may be impossible to measure in monetary damages. Accordingly, in addition to any other remedies which the Company may have at law or in equity, the Company will have the right to have all obligations, undertakings, agreements, covenants and other provisions of this Non-Competition Agreement specifically performed by Grantee, and the Company will have the right to obtain preliminary and permanent injunctive relief to secure specific performance, and to prevent a breach or contemplated breach, of this Non-Competition Agreement. In such event, the Company will be entitled to an accounting and repayment of all profits, compensation, remunerations or benefits which Grantee or others, directly or indirectly, have realized or may realize as a result of, growing out of, or in conjunction with any violation of this Non-Competition Agreement. Such remedies will be an addition to and not in limitation of any injunctive relief or other rights or remedies to which the Company is or may be entitled at law or in equity. In the event that the Company obtains any requested relief in any action brought to enforce the terms of this Non-Competition Agreement through court proceedings, the Company will be entitled to reimbursement for all legal fees, costs and expenses incident to enforcement.

4. Severability. If any section, paragraph, term or provision of this Non-Competition Agreement, or the application thereof, is determined by a competent court or tribunal to be invalid or unenforceable, then the other parts of such section, paragraph, term or provision will not be affected thereby and will be given full force and effect without regard to the invalid or unenforceable portions, and the section, paragraph, term or provision of this Non-Competition Agreement will be deemed modified to the extent necessary to render it valid and enforceable.

5. Miscellaneous.

(a) Employment.

(i) This Non-Competition Agreement does not constitute a guarantee of employment and termination of employment will not affect the enforceability of this Non-Competition Agreement.

(ii) Grantee agrees that if Grantee is transferred from the entity or division which was Grantee’s employer at the time Grantee signed this Non-Competition Agreement to employment by another division or another company that is a subsidiary or affiliate of Harsco Corporation, and Grantee has not entered into a superseding agreement with the new employer covering the subject matter of this Non-Competition Agreement, then this Non-Competition Agreement will continue in effect and the Grantee’s new employer will be termed “the Company” for all purposes hereunder and will have the right to enforce this Non-Competition Agreement as Grantee’s employer. In the event of any subsequent transfer, Grantee’s new employer will succeed to all rights under this Non-Competition Agreement so long as such employer will be Harsco Corporation or one of its subsidiaries or affiliates and so long as this Non-Competition Agreement has not been superseded.

(b) Headings. The headings contained in this Non-Competition Agreement are inserted for convenience of reference only, and will not be deemed to be a part of this Non-Competition Agreement for any purposes, and will not in any way define or affect the meaning, construction or scope of any of the provisions of this Non-Competition Agreement.

(c) Governing Law. This Non-Competition Agreement will be construed under the laws of the Commonwealth of Pennsylvania, without regard to its conflict of law provisions, and the parties consent and agree that the federal and state courts of the Commonwealth of Pennsylvania will have exclusive jurisdiction over any dispute relating to this Non-Competition Agreement.

(d) Supplemental Nature of this Non-Competition Agreement. The restrictions set forth in paragraph 1 of this Non-Competition Agreement will be in addition to any other such restrictive covenants agreed to through separate agreements, if any, between Grantee and the Company and will survive the exercise of the equity award evidenced by the Agreement.

(e) Waiver. The failure by the Company to enforce any right or remedy available to it under this Non-Competition Agreement will not be construed to be a waiver of such right or remedy with respect to any other prior, concurrent or subsequent breach or failure. No waiver of rights under this Non-Competition Agreement will be effective unless made in writing with specific reference to this Non-Competition Agreement.

(f) Notification. Grantee agreed that the Company may notify any third party about Grantee’s obligations under this Non-Competition Agreement until such time as Grantee has performed all of Grantee’s obligations hereunder. Upon the Company’s request, Grantee agrees to provide the Company with information, including, but not limited to, supplying details of Grantee’s subsequent employment, sufficient to verify that Grantee has not breached, or is not breaching, any covenant in this Non-Competition Agreement.

(g) Acknowledgments.

(i) Grantee acknowledges and agrees that this Non-Competition Agreement is in consideration of, (A) the grant evidenced by the Agreement, (B) access to Confidential/Proprietary Trade Secret Information, as required by Grantee's job duties, and (C) access to important customer relationships and the associated customer goodwill of the Company.

(ii) Grantee acknowledges that he or she has carefully read and considered the provisions of this Non-Competition Agreement, and that this Non-Competition Agreement is reasonable as to time and scope and activities prohibited, given the Company’s need to protect its interests and given the consideration provided to Grantee in the form of the grant evidenced by the Agreement.

(iii) Grantee acknowledges that he or she has had an opportunity to consult with an independent legal counsel of Grantee’s choosing, and accept the grant contained in the Agreement and continuing employment on the terms set forth in this Non-Competition Agreement.

EXHIBIT B

Additional Terms and Conditions for International Employees

TERMS AND CONDITIONS

This Exhibit B (this “Exhibit”), which is part of the Agreement, contains additional terms and conditions that govern the RSUs granted to the Grantee under the Plan if he or she resides outside the United States. The terms and conditions in Part A apply to *all* Grantees outside the United States. The country-specific terms and conditions and/or notifications in Part B will also apply to the Grantee if he or she resides in one of the countries listed below. Unless otherwise defined, capitalized terms used but not defined in this Exhibit have the meanings set forth in the Plan and/or the Agreement.

NOTIFICATIONS

This Exhibit also includes information regarding exchange controls and certain other issues of which the Grantee should be aware with respect to participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the respective countries as of April 2016. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Grantee not rely on the information in this Exhibit as the only source of information relating to the consequences of his or her participation in the Plan because the information may be out of date at the time that the Grantee vests in the RSUs or sell shares of Common Stock acquired under the Plan.

In addition, the information contained herein is general in nature and may not apply to the Grantee’s particular situation, and the Company is not in a position to assure the Grantee of a particular result. Accordingly, the Grantee is advised to seek appropriate professional advice as to how the relevant laws in his or her country may apply to the Grantee’s situation.

Finally, if the Grantee is a citizen or resident, or is considered a resident, of a country other than the one in which he or she is currently working, or transferred employment after the RSUs were granted to him or her, the information contained herein may not be applicable. In addition, the Company shall, in its sole discretion, determine to what extent the additional terms and conditions included herein will apply to you under these circumstances.

A. ALL NON-U.S. COUNTRIES ADDITIONAL TERMS AND CONDITIONS

The following additional terms and conditions will apply to the Grantee if he or she resides in any country outside the United States.

Responsibility for Taxes. The following section replaces Section 8 of the Agreement in its entirety:

The Grantee acknowledges that, regardless of any action taken by the Company or, if different, the Grantee’s employer (the “Employer”), the ultimate liability for all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to the Grantee’s participation in the Plan and legally applicable to the Grantee (“Tax-Related Items”) is and remains the Grantee’s responsibility and may exceed the amount actually withheld by the Company or the Employer. The Grantee further acknowledges that the Company and/or the Employer (1) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the RSU, including, but not limited to, the grant, vesting or settlement of the RSUs, the subsequent sale of shares of

Common Stock acquired pursuant to such settlement and the receipt of any dividends and/or any dividend equivalents; and (2) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the RSUs to reduce or eliminate the Grantee's liability for Tax-Related Items or achieve any particular tax result. Further, if the Grantee is subject to Tax-Related Items in more than one jurisdiction between the Date of Grant and the date of any relevant taxable or tax withholding event, as applicable, the Grantee acknowledges that the Company and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to any relevant taxable or tax withholding event, as applicable, the Grantee agrees to make adequate arrangements satisfactory to the Company and/or the Employer to satisfy all Tax-Related Items. In this regard, the Grantee authorizes the Company and/or the Employer to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following methods: (i) requiring payment by the Grantee to the Company, on demand, by cash, check or other method of payment as may be determined acceptable by the Company; or (ii) withholding from the Grantee's wages or other cash compensation paid to the Grantee by the Company and/or the Employer; or (iii) withholding from proceeds of the sale of shares of Common Stock acquired at vesting of the RSUs either through a voluntary sale or through a mandatory sale arranged by the Company (on the Grantee's behalf pursuant to this authorization) without further consent; or (ii) withholding shares of Common Stock issuable at vesting of the RSUs.

Depending on the withholding method, the Company and/or the Employer may withhold or account for Tax-Related Items by considering applicable minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates, in which case the Grantee will receive a refund of any over-withheld amount in cash and will have no entitlement to the Common Stock equivalent. If the obligation for Tax-Related Items is satisfied by withholding in shares of Common Stock, for tax purposes, the Grantee is deemed to have been issued the full number of shares of Common Stock subject to the vested RSUs, notwithstanding that a number of the shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items.

Finally, the Grantee agrees to pay the Company or the Employer any amount of Tax-Related Items that the Company or the Employer may be required to withhold or account for as a result of the Grantee's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the shares or the proceeds of the sale of shares of Common Stock, if the Grantee fails to comply with the Grantee's obligations in connection with the Tax-Related Items.

Nature of Grant. In accepting the grant, the Grantee acknowledges, understands and agrees that: (1) the Plan is established voluntarily by the Company, it is discretionary in nature and it may be modified, amended, suspended or terminated by the Company at any time, to the extent permitted by the Plan; (2) all decisions with respect to future RSU or other grants, if any, will be at the sole discretion of the Company; (3) the Grantee is voluntarily participating in the Plan; (4) the RSU and the shares of Common Stock subject to the RSU are not intended to replace any pension rights or compensation; (5) the future value of the underlying shares of Common Stock is unknown, indeterminable and cannot be predicted with certainty; (6) no claim or entitlement to compensation or damages shall arise from forfeiture of the RSUs resulting from the termination of the Grantee's employment or other service relationship (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Grantee is employed or the terms of the Grantee's employment agreement, if any), and in consideration of the grant of the RSUs to which the Grantee is otherwise not entitled, the Grantee irrevocably agrees never to institute any claim against the Company, any of its Subsidiaries or the Employer, waives the Grantee's ability, if any, to bring any such claim, and releases the Company, its Subsidiaries and the Employer from any such claim; if, notwithstanding the foregoing, any such claim is allowed by a court of competent jurisdiction, then, by participating in the Plan, the Grantee shall be deemed irrevocably to have agreed not to pursue such claim and agree to execute any and all documents necessary to request dismissal or withdrawal of such claim; (7) for purposes of the RSUs, the Grantee's employment or service relationship will be considered terminated as of the date the Grantee is no longer actively providing services to the Company or one of its Subsidiaries (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any) and unless otherwise expressly provided in these Terms and Conditions or determined by the Company, the Grantee's right to vest in the RSUs under the Plan, if any, will terminate as of such date and will not be extended by any notice period (*e.g*., the Grantee's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any); the Company shall have the exclusive discretion to determine when the Grantee is no longer actively providing services for purposes of the Grantee's RSU grant (including whether the Grantee may still be considered to be providing services while on an approved leave of absence); (8) unless otherwise provided in the Plan or by the Company in its discretion, the RSUs and the benefits evidenced by these Terms and Conditions do not create any entitlement to have the RSUs or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; (9) the RSUs and the shares of Common Stock subject to the RSUs, and the income and value of same, are not part of normal or expected compensation for any purpose, including, without limitation, calculating severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension or retirement or welfare benefits or similar payments; and (10) the Grantee acknowledges and agrees that neither the Company, the Employer nor any subsidiary or affiliate of the Company shall be liable for any foreign exchange rate fluctuation between the Grantee's local currency and the United States Dollar that may affect the value of the RSUs or of any amounts due to the Grantee pursuant to the settlement of the RSUs or the subsequent sale of any shares of Common Stock acquired upon settlement.

No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Grantee's participation in the Plan, or the Grantee's acquisition or sale of the underlying shares of Common Stock. The Grantee is hereby advised to consult with the Grantee's own personal tax, legal and financial advisors regarding the Grantee's participation in the Plan before taking any action related to the Plan.

***Data Privacy*. The Grantee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, including email, of the Grantee's personal data as described in the Agreement and any other RSU grant materials ("Data") by and among, as applicable, the Employer, the Company and its subsidiaries and affiliates for the exclusive purpose of implementing, administering and managing the Grantee's participation in the Plan.**
The Grantee understands that the Company and the Employer may hold certain personal information about the Grantee, including, but not limited to, the Grantee's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job title, any shares of stock or directorships held in the Company, details of all RSUs or any other entitlement to shares of stock awarded, canceled, exercised, vested, unvested or outstanding in the Grantee's favor, for the exclusive purpose of implementing, administering and managing the Plan.

The Grantee understands that Data will be transferred to the Company's stock transfer agent and/or broker, or such other stock plan service provider as may be selected by the Company in the future, which is assisting the Company with the implementation, administration and management of the Plan.

The Grantee understands that the recipients of the Data may be located in the United States or elsewhere (including outside the EEA), and that the recipients' country (e.g., the United States) may have different data privacy laws and protections than the Grantee's country. The Grantee understands that the Grantee may request a list with the names and addresses of any potential recipients of the Data by contacting the Grantee's local human resources representative. The Grantee authorizes the Company, the Company's stock transfer agent and/or broker, and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purpose of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that Data will be held only as long as is necessary to implement, administer and manage the Grantee's participation in the Plan. The Grantee understands that the Grantee may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing the Grantee's local human resources representative. Further, the Grantee understands that the Grantee is providing the consents herein on a purely voluntary basis. If the Grantee does not consent, or if the Grantee later seeks to revoke the Grantee's consent, the Grantee's employment status or service and career with the Employer will not be adversely affected; the only adverse consequence of refusing or withdrawing the Grantee's consent is that the Company would not be able to grant the Grantee RSUs or other equity awards or administer or maintain such awards. Therefore, the Grantee understands that refusing or withdrawing the Grantee's consent may affect the Grantee's ability to participate in the Plan. For more information on the consequences of the Grantee's refusal to consent or withdrawal of consent, the Grantee understands that the Grantee may contact the Grantee's local human resources representative.

Governing Law and Venue. The RSU grant and the provisions of the Agreement are governed by, and subject to, the internal substantive laws of the State of Delaware in the United States of America (with the exception of its conflict of law provisions).

For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by this grant or the Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the Commonwealth of Pennsylvania in the United States of America and agree that such litigation shall be conducted only in the courts of Cumberland County, the Commonwealth of Pennsylvania, or the federal courts for the United States of America for the Middle District of Pennsylvania, and no other courts, where this grant is made and/or to be performed.

Compliance with Law. The following section supplements Section 9 of the Agreement:
Notwithstanding any other provision of the Plan or the Agreement, unless there is an available exemption from any registration, qualification or other legal requirement applicable to the shares of Common Stock, the Company shall not be required to deliver any shares issuable upon settlement of the RSUs prior to the completion of any registration or qualification of the shares under any local, state, federal or foreign securities or exchange control law or under rulings or regulations of the U.S. Securities and Exchange Commission ("SEC") or of any other governmental regulatory body, or prior to obtaining any approval or other clearance from any local, state, federal or foreign governmental agency, which registration, qualification or approval the Company shall, in its absolute discretion, deem necessary or advisable. The Grantee understands that the Company is under no obligation to register or qualify the shares with the SEC or any state or foreign securities commission or to seek approval or clearance from any governmental authority for the issuance or sale of the shares. Further, the Grantee agrees that Company shall have unilateral authority to amend the Plan and the Agreement without the Grantee's consent to the extent necessary to comply with securities or other laws applicable to issuance of shares.

Language. If the Grantee has received the Agreement or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means, including email. The Grantee hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

Severability. The provisions of these Terms and Conditions are severable and if any one or more provisions are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.

Imposition of Other Requirements. Subject to Section 14 of the Agreement, the Company reserves the right to impose other requirements on the Grantee's participation in the Plan, on the RSUs and on any shares of Common Stock acquired under the Plan, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require the Grantee to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

Waiver. The Grantee acknowledges that a waiver by the Company of breach of any provision of these Terms and Conditions shall not operate or be construed as a waiver of any other provision of these Terms and Conditions, or of any subsequent breach by the Grantee or any other Participant.

B. COUNTRY-SPECIFIC ADDITIONAL TERMS AND CONDITIONS AND NOTIFICATIONS

AUSTRALIA

TERMS AND CONDITIONS

Settlement of RSUs. Notwithstanding anything to the contrary in the Agreement, due to local regulatory requirements, upon the vesting of the RSUs, the Grantee will receive a cash payment in an amount equal to the value of the shares of Common Stock underlying the vested RSUs on a vesting date. As long as the Grantee resides in Australia, he or she may not receive or hold shares of Common Stock in connection with the RSUs under the Plan. Accordingly, any provisions in the Agreement referring to issuance of shares of Common Stock shall not be applicable to the Grantee as long as he or she resides in Australia.

NOTIFICATIONS

Exchange Control Information. Exchange control reporting is required for cash transactions exceeding $10,000 and international fund transfers. The Australian bank assisting with the transaction will file the report. If there is no Australian bank involved in the transfer, Grantee will be required to file the report.

BELGIUM

NOTIFICATIONS

Tax Reporting Information. Grantee is required to report any bank accounts opened and maintained outside of Belgium on his or her annual Belgian tax return.

BRAZIL

TERMS AND CONDITIONS

Compliance with Law. By accepting the RSUs, the Grantee acknowledges that he or she agrees to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the vesting of the RSUs, the receipt of any dividends, and the sale of shares of Common Stock acquired under the Plan.

NOTIFICATIONS

Exchange Control Information. If the Grantee is resident or domiciled in Brazil, he or she will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights is equal to or greater than US $100,000. Assets and rights that must be reported include shares of Common Stock.

CHINA

TERMS AND CONDITIONS

Settlement of RSUs. Notwithstanding anything to the contrary in the Agreement, due to local regulatory requirements, upon the vesting of the RSUs, the Grantee will receive a cash payment in China via the Company’s local Chinese payroll in an amount equal to the value of the shares of Common Stock underlying the vested RSUs on a vesting date. As long as the Grantee resides in China, he or she may not receive or hold shares of Common Stock in connection with the RSUs under the Plan. Accordingly, any provisions in the Agreement referring to issuance of shares of Common Stock shall not be applicable to the Grantee as long as he or she resides in China.

FRANCE

TERMS AND CONDITIONS

Consent to Receive Information in English. By accepting the grant of the RSUs, the Grantee confirms having read and understood the Plan and the Agreement, which were provided in the English language. The Grantee accepts the terms of those documents accordingly.

En acceptant cette attribution gratuite d’actions, le Grantee confirme avoir lu et compris le Plan et ce Contrat, incluant tous leurs termes et conditions, qui ont été transmis en langue anglaise. Le Grantee accepte les dispositions de ces documents en connaissance de cause.

NOTIFICATIONS

Tax Notification. The RSUs are not intended to be French tax-qualified. Please be aware that the Company intends that any outstanding RSUs granted to you pursuant to the 1995 Executive Incentive Compensation Plan Sub-plan for Restricted Stock Units Granted to Participants in France will continue to meet the requirements for qualified status under French law; therefore, different terms and conditions will apply to such outstanding RSUs. Please refer to the Restricted Stock Unit Agreement for Employees in France applicable to your grant for further details.

Exchange Control Notification. The Grantee may hold shares of Common Stock acquired under the Plan outside of France provided that he or she declares all foreign accounts (including any accounts that were opened or closed during the tax year) on his or her annual French income tax return.

INDIA

TERMS AND CONDITIONS

The Grantee hereby agrees that it shall hold the shares of the Common Stock pursuant to this Agreement and the Plan, at all times in accordance with the applicable laws in India, including but not limited to the (Indian) Foreign Exchange Management (Transfer or Issue of Any Foreign Security) Regulations, 2004 (and as amended or replaced), relevant master circulars, directions, notifications issued in this regard by the Reserve Bank of India from time to time and shall carry out the necessary reporting with the Reserve Bank of India at all stages of granting and vesting, if and as may be required. The Grantee agrees to indemnify the Company and/or Subsidiary of the Company with respect to any non-compliance and/or non-adherence by the Grantee of any of the applicable laws in India arising out of holding of the shares of the Common Stock by the Grantee.

The Grantee shall declare the holding of shares of the Common Stock, if and as may be necessary, in its income for taxation purposes and agrees to indemnify the Company and/or Subsidiary of the Company with respect to any and all taxes that it shall be obligated to pay with respect to the shares of the Common Stock such as including but not limited to income tax, capital gain taxes etc., under this Agreement and which may arise as a result of the sale of the shares of the Common Stock and the transactions contemplated hereunder.

LUXEMBOURG

NOTIFICATIONS

Exchange Control Information. Grantee understands that Grantee is required to report any inward remittances of funds to the Banque Centrale de Luxembourg and/or the Service Central de la Statistique et des Études Économiques within 15 working days following the month during which the transaction occurred unless such payment is reported by a Luxembourg-resident financial institution.

THE NETHERLANDS

TERMS AND CONDITIONS

Non-Competition Agreement. The non-competition agreement entered into between the Company and the Grantee shall be in addition to any non-compete arrangements between the Grantee and his or her employer.

SWITZERLAND

TERMS AND CONDITIONS

Vesting: With the acceptance of a Grant, the Grantee expressly acknowledges that any RSU, PSU and/or SAR shall not give the Grantee any right or entitlement until such Grant is fully vested. The Grant remains fully discretionary until full vesting.

Continuous Employment: In Switzerland, “continuously employed” (or substantially similar term) means the absence of any interruption or termination (issuance of termination notice) of the Grantee’s employment with the Company or with a Subsidiary of the Company. Continuous employment shall not be considered interrupted or terminated in the case of sick leave, military leave or any other leave of absence approved by the Company for which compensation needs to be paid by the Company or salary replacement benefits are granted by any insurance or in the case of transfers between locations of the Company and its Subsidiaries. For the avoidance of any doubt, continuous employment ends in any case with the end of the employment, even if any salary replacement benefits continue to be paid by any insurance, pension scheme or social security.

Retirement: For the purpose of the Plan, only a retirement under the rules and conditions of the Swiss pension scheme of the Subsidiary employing the Grantee shall qualify as retirement for the purpose of vesting of RSU, PSU or termination of SAR, and only if such retirements is (A) at age 62 or older while employed by the Company or any of its Subsidiaries; or (B) at or after such time as the Grantee’s age (minimum of age 55), plus full years of continuous employment by the Company or any of its Subsidiaries, equals 75.

Disability: For purposes of the Plan, the Grantee shall be considered “Disabled” if the Grantee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or qualifies as permanent full disability under the applicable Swiss social security and/or pension laws.

Non-Competition Agreement: For the avoidance of any doubt, any non-competition agreement entered into between the Grantee and the Company in connection with the Plan and grants thereunder shall be in addition to any non-competition agreement agreed between the Grantee and the employing Subsidiary and shall not replace such non-competition agreement.

NOTIFICATIONS

Exchange Control Notification. The Grantee may hold shares of Common Stock acquired under the Plan outside of Switzerland provided that he or she declares all foreign accounts (including any accounts that were opened or closed during the tax year) on his or her annual Swiss tax declaration.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Notice. RSUs under the Plan are granted only to select executive officers and other employees of the Company and its subsidiaries for the purpose of providing such eligible persons with incentives and rewards for performance. The Agreement, including this Exhibit, the Plan and any documents the Grantee may receive in connection with the RSUs are intended for distribution to such eligible persons and must not be delivered to, or relied on, by any other person.

The Emirates Securities and Commodities Authority, the Central Bank, the Ministry of Economy and the Dubai Department of Economic Development do not have any responsibility for reviewing or verifying any documents in connection with the Plan nor have they reviewed or approved the Plan or the Agreement. The securities to which this statement relates may be illiquid and/or subject to restrictions on their resale. The Grantee and/or prospective purchasers of the securities offered should conduct their own due diligence on the securities.

If the Grantee does not understand the contents of the Agreement, including this Exhibit, or the Plan, the Grantee should consult an authorized financial adviser.

UNITED KINGDOM

TERMS AND CONDITIONS

U.K. Sub-Plan. The terms of the U.K. Sub-plan apply to the RSUs.

HARSCO CORPORATION

STOCK APPRECIATION RIGHTS AGREEMENT

(FORM)

This STOCK APPRECIATION RIGHTS AGREEMENT (this "***Agreement***") is made as of _________ ___, 20__, by and between Harsco Corporation, a Delaware corporation and _________________ (the "***Grantee***").

1. **Certain Definitions**. Capitalized terms used, but not otherwise defined, in this Agreement will have the meanings given to such terms in the Company's 2013 Equity and Incentive Compensation Plan (the "***Plan***"). In addition, for purposes of this Agreement, "Base Price" means $__________, which was the Market Value per Share of the Common Stock on _________ ___, 20__ (the "***Date of Grant***").

2. **Grant of SARs**. Subject to and upon the terms, conditions and restrictions set forth in this Agreement, including, without limitation, **Exhibit A** attached hereto (the "***Non-Competition Agreement***"), and any additional terms and conditions for the Grantee's country (Grantees outside the United States only) set forth in the attached **Exhibit B** which forms part of this Agreement, and in the Plan the Company has granted to the Grantee, as of the Date of Grant, __________ Free-Standing Appreciation Rights ("***SARs***"). The SARs represent the right of the Grantee to receive shares of Common Stock in an amount equal to 100% of the Spread on the date on which the SARs are exercised. Notwithstanding anything in this **Section 2** or otherwise in this Agreement to the contrary, the Grantee acknowledges and agrees to be bound by the restrictive covenant terms, conditions and provisions in the Non-Competition Agreement as a "Grantee" as referred to therein.

3. **Vesting of SARs**.

(a) Subject to the terms and conditions of this Agreement and the Plan, the SARs covered by this Agreement shall become exercisable as described in this Section. One-third of the SARs shall become exercisable on the first anniversary of the Date of Grant if the Grantee remains in the continuous employ of the Company or one of its Subsidiaries from the Date of Grant through such first anniversary. An additional one-third of the SARs shall become exercisable on each subsequent anniversary of the Date of Grant, through the third anniversary of the Date of Grant, when 100% of the SARs shall have become exercisable, if the Grantee remains in the continuous employ of the Company or one of its Subsidiaries from the Date of Grant through each such anniversary. For purposes of this Agreement, "continuous employ" (or substantially similar term) means the absence of any interruption or termination of the Grantee's employment with the Company or with a Subsidiary of the Company. Continuous employment shall not be considered interrupted or terminated in the case of sick leave, military leave or any other leave of absence approved by the Company or in the case of transfers between locations of the Company and its Subsidiaries.

(b) Notwithstanding **Section 3(a)** above, the SARs granted hereby shall become immediately exercisable in full if at any time during the continuous employment of the Grantee with the Company or a Subsidiary of the Company and prior to the termination of the SARs any of the following events occur:

(i) the Grantee's death or becoming Disabled while the Grantee is continuously employed by the Company or any of its Subsidiaries; or

(ii) the Grantee's retirement (A) at age 62 or older while continuously employed by the Company or any of its Subsidiaries; or (B) at or after such time as the Grantee's age (minimum of age 55), plus full years of continuous employment by the Company or any of its Subsidiaries, equals 75.

(c) For purposes of this **Section 3**, the Grantee shall be considered "Disabled" if the Grantee is: (i) unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, or (ii) by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, receiving income replacement benefits for a period of not less than three months under an accident and health plan covering employees of the Company.

(d)

(i) Notwithstanding **Section 3(a)** above, if at any time before the third anniversary of the Date of Grant or the termination of the SARs, and while the Grantee is continuously employed by the Company or a Subsidiary, a Change in Control occurs, then the SARs will become fully exercisable, except to the extent that a Replacement Award is provided to the Grantee in accordance with **Section 3(d)(ii)** to continue, replace or assume the SARs covered by this Agreement (the "***Replaced Award***").

(ii) For purposes of this Agreement, a "Replacement Award" means an award (A) of the same type (*e.g.*, time-based stock appreciation rights) as the Replaced Award, (B) that has a value at least equal to the value of the Replaced Award, (C) that relates to publicly traded equity securities of the Company or its successor in the Change in Control or another entity that is affiliated with the Company or its successor following the Change in Control or is payable solely in cash, (D) if the Grantee holding the Replaced Award is subject to U.S. federal income tax under the Code, the tax consequences of which to such Grantee under the Code are not less favorable to such Grantee than the tax consequences of the Replaced Award, and (E) the other terms and conditions of which are not less favorable to the Grantee holding the Replaced Award than the terms and conditions of the Replaced Award (including the provisions that would apply in the event of a subsequent Change in Control). A Replacement Award may be granted only to the extent it does not result in the Replaced Award or Replacement Award failing to comply with or be exempt from Section 409A of the Code. Without limiting the generality of the foregoing, the Replacement Award may take the form of a continuation of the Replaced Award if the requirements of the two preceding sentences are satisfied. The determination of whether the conditions of this **Section 3(d)(ii)** are satisfied will be made by the Committee, as constituted immediately before the Change in Control, in its sole discretion.

(iii) If, upon receiving a Replacement Award, the Grantee's employment with the Company or a Subsidiary (or any of their successors) (as applicable, the "***Successor***") is subsequently terminated by the Grantee for Good Reason or by the Successor without Cause within a period of two years after the Change in Control, 100% of the Replacement Award will become exercisable with respect to the time-based stock appreciation rights covered by such Replacement Award.

(iv) A termination by the Grantee for "Good Reason" means Grantee's termination of his or her employment with the Successor as a result of the occurrence of any of the following: (A) a change in the Grantee's principal location of employment that is greater than 50 miles from such location as of the date of this Agreement without the

Grantee's consent; provided, however, that the Grantee hereby acknowledges that the Grantee may be required to engage in travel in connection with the performance of the Grantee's duties and that such travel shall not constitute a change in the Grantee's principal location of employment for purposes hereof; (B) a material diminution in the Grantee's base compensation; (C) a change in the Grantee's position with the Successor without the Grantee's consent such that there is a material diminution in the Grantee's authority, duties or responsibilities; or (D) any other action or inaction that constitutes a material breach by the Successor of the agreement, if any, under which the Grantee provides services to the Successor or its subsidiaries. Notwithstanding the foregoing, the Grantee's termination of the Grantee's employment with the Successor as a result of the occurrence of any of the foregoing shall not constitute a termination for "Good Reason" unless (X) the Grantee gives the Successor written notice of such occurrence within 90 days of such occurrence and such occurrence is not cured by the Successor within 30 days of the date on which such written notice is received by the Successor and (Y) the Grantee actually terminates his or her employment with the Successor prior to the 365th day following such occurrence.

(v) A termination by the Successor without "Cause" means the Successor's termination of the Grantee's employment with the Successor under circumstances that do not involve or relate to the occurrence of any of the following: (A) an act or acts of personal dishonesty taken by the Grantee and intended to result in substantial personal enrichment of the Grantee at the expense of the Company; (B) repeated failure by the Grantee to devote reasonable attention and time during normal business hours to the business and affairs of the Company or to use the Grantee's reasonable best efforts to perform faithfully and efficiently the responsibilities assigned to the Grantee (provided that such failure is demonstrated to be willful and deliberate on the Grantee's part and is not remedied in a reasonable period of time after receipt of written notice from the Company); or (C) the conviction of the Grantee of a felony.

4. **Exercise of SARs**.

(a) To the extent exercisable as provided in **Section 3** of this Agreement, the SARs may be exercised in whole or in part by delivery to the Company of a notice in form and substance satisfactory to the Company specifying the number of SARs to be exercised and the date of exercise.

(b) Upon exercise, the Company will issue to the Grantee, with respect to the number of SARs that are exercised, the number of shares of Common Stock that equals the Market Value per Share of Common Stock on the date of exercise divided into the Spread, rounded down to the nearest whole share.

5. **Termination of SARs**. Both exercisable and nonexercisable SARs shall terminate, as provided below, after the end of the earliest to occur of the following periods:

(a) 90 days after the Grantee ceases to be an employee of the Company or a Subsidiary, unless the Grantee ceases to be such employee in a manner described in clause (b), (c), (d) or (e) of this Section;

(b) One year after the Grantee's becoming Disabled, if the Grantee becomes Disabled while continuously employed by the Company or a Subsidiary;

(c) One year after the death of the Grantee, if the Grantee dies while continuously employed by the Company or a Subsidiary or within the period specified in clause (b) above or clause (d) below if applicable to the Grantee;

(d) One year after the Grantee retires from continuous employment with the Company or a Subsidiary if (i) the Grantee is at the time of such retirement at least age 62, or (ii) when the Grantee retires, the Grantee's age, plus full years of continuous employment by the Company or any of its Subsidiaries, equals 75;

(e) One year after the Grantee ceases to be an employee of the Successor under the conditions specified in **Section 3(d)** of this Agreement; and

(f) Ten years from the Date of Grant.

6. **Transferability**. Subject to Section 15 of the Plan, no SAR or any interest therein shall be transferable prior to exercise pursuant to **Section 4** hereof other than by will or pursuant to the laws of descent and distribution and may be exercised during the Grantee's lifetime only by the Grantee or, in the event of the Grantee's legal incapacity to do so, by the Grantee's guardian or legal representative acting on behalf of the Grantee in a fiduciary capacity under state law or court supervision.

7. **Compliance with Law**. The SARs shall not be exercisable if such exercise would involve a violation of any applicable federal or state securities law, and the Company hereby agrees to make reasonable efforts to comply with any applicable federal and state securities laws.

8. **Adjustments**. The SARs are subject to mandatory adjustment under the terms of Section 11 of the Plan.

9. **Withholding Taxes**. To the extent that the Company is required to withhold federal, state, local or foreign taxes in connection with the delivery to the Grantee of Common Stock or any other payment to the Grantee or any other payment or vesting event under this Agreement, the Grantee hereby authorizes withholding from payroll and any other amounts payable to the Grantee, including amounts payable hereunder, and otherwise agrees to make adequate provision for, any sums required to satisfy such tax withholding obligations of the Company. The Company shall have no obligation to make delivery or payment hereunder until the tax withholding obligations of the Company have been satisfied by the Grantee. If all or any part of such withholding requirement be satisfied by retention by the Company of a portion of the Common Stock to be delivered to the Grantee or by delivering to the Company other shares of Common Stock held by the Grantee, the shares so retained shall be credited against such withholding requirement at the Market Value per Share of such Common Stock on the date of such delivery. In no event will the market value of the Common Stock to be withheld and/or delivered pursuant to this **Section 9** to satisfy applicable withholding taxes exceed the minimum amount of taxes required to be withheld, unless otherwise agreed to by the Grantee, provided, however, that such amount shall not exceed the statutory maximum withholding rates.

10. **No Employment Rights**. The grant of the SARs under this Agreement to the Grantee is a voluntary, discretionary award being made on a one-time basis and it does not constitute a commitment to make any future awards. The grant of the SARs and any payments made hereunder will not be considered salary or other compensation for purposes of any severance pay or similar allowance, except as otherwise required by law. Nothing in this Agreement will give the Grantee any right to continue employment with the Company or any Subsidiary, as the case may be, or interfere in any way with the right of the Company or a Subsidiary to terminate the employment of the Grantee at any time.

11. **Relation to Other Benefits**. Any economic or other benefit to the Grantee under this Agreement or the Plan shall not be taken into account in determining any benefits to which the Grantee

may be entitled under any profit-sharing, retirement or other benefit or compensation plan maintained by the Company or a Subsidiary and shall not affect the amount of any life insurance coverage available to any beneficiary under any life insurance plan covering employees of the Company or a Subsidiary.

12. **Amendments**. Any amendment to the Plan shall be deemed to be an amendment to this Agreement to the extent that the amendment is applicable hereto; provided, however, that (a) no amendment shall adversely affect the rights of the Grantee under this Agreement without the Grantee's written consent, and (b) the Grantee's consent shall not be required to an amendment that is deemed necessary by the Company to ensure compliance with Section 409A of the Code.

13. **Severability**. In the event that one or more of the provisions of this Agreement shall be invalidated for any reason by a court of competent jurisdiction, any provision so invalidated shall be deemed to be separable from the other provisions hereof, and the remaining provisions hereof shall continue to be valid and fully enforceable.

14. **Relation to Plan**. This Agreement is subject to the terms and conditions of the Plan. In the event of any inconsistency between the provisions of this Agreement and the Plan, the Plan shall govern. The Committee acting pursuant to the Plan, as constituted from time to time, shall, except as expressly provided otherwise herein or in the Plan, have the right to determine any questions which arise in connection with this Agreement. In addition, the SARs shall be subject to the terms and conditions of the Company's clawback policy in effect on the Date of Grant as if such SARs were "Incentive-Based Compensation" (as such term is defined in such clawback policy).

15. **Successors and Assigns**. Without limiting **Section 6** hereof, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, administrators, heirs, legal representatives and assigns of the Grantee, and the successors and assigns of the Company.

16. **Acknowledgement**. The Grantee acknowledges that the Grantee (a) has received a copy of the Plan, (b) has had an opportunity to review the terms of this Agreement and the Plan, (c) understands the terms and conditions of this Agreement and the Plan and (d) agrees to such terms and conditions.

17. **Counterparts**. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same Agreement.

[signature page follows]

IN WITNESS WHEREOF, the Company has caused this Agreement to be executed on its behalf by its duly authorized officer and the Grantee has executed this Agreement, effective as of the day and year first above written.

HARSCO CORPORATION

By: /s/ F. Nicholas Grasberger III
Name: F. Nicholas Grasberger III
Title: President and CEO

The undersigned hereby acknowledges receipt of an executed version of this Agreement and accepts the award of SARs granted hereunder on the terms and conditions set forth herein and in the Plan (including the terms of the Non-Competition Agreement, attached hereto as **Exhibit A**).

GRANTEE

By: _______________
Name:

EXHIBIT A

Non-Competition Agreement

1. Grant. Grantee acknowledges that Grantee has access to the confidential and proprietary trade secret information of Harsco Corporation, including its subsidiaries, joint ventures, and operating divisions (the "Company"), as further described below ("Confidential/Proprietary Trade Secret Information"). Further, Grantee acknowledges that Grantee derives significant value from the Company and from the Confidential/Proprietary Trade Secret Information provided during the term of employment with the Company, which enables Grantee to optimize the performance of the Company's performance and Grantee's own personal, professional, and financial benefit. In consideration of the grant described in the award agreement (the "Agreement") to which these terms, conditions and provisions (the "Non-Competition Agreement") are attached as an exhibit, Grantee agrees that, during Grantee's employment by the Company, and for a period of twelve (12) months after the cessation of such employment for any reason (both such periods collectively referred to as the "Restricted Period"), Grantee will not, directly or indirectly, engage in any of the following competitive activities:

(a) For Grantee or on behalf of any other corporation, business, partnership, individual, or other entity, directly or indirectly solicit, divert, contract with, or attempt to solicit, divert, or contract with, any customer with whom Grantee had Material Contact during the final two (2) years of Grantee's employment with the Company concerning any products or services that are similar to those that Grantee was responsible for or were otherwise involved with during Grantee's employment with the Company. For purposes of this Non-Competition Agreement, the Grantee will have had "Material Contact" with a customer if: (i) Grantee had business dealings with the customer on the Company's behalf; (ii) Grantee was responsible for supervising or coordinating the dealings between the Company and the customer; or (iii) Grantee obtained Confidential/Proprietary Trade Secret Information about the customer as a result of Grantee's association with the Company;

(b) Within the geographic territory where Grantee was employed by the Company, obtained knowledge of Confidential/Proprietary Trade Secret Information, or had contact with the Company's customers, become employed by or otherwise render services to (as a director, employee, contractor or consultant) or have any ownership interest in any business which is engaged in offering the same or similar products or services as, or otherwise competes with those Company, including its subsidiaries and operating unit(s) with which Grantee was employed or in any way involved during the last twelve (12) months of employment with the Company; or

(c) (i) induce, offer, assist, encourage or suggest that another business or enterprise offer employment to or enter into a consulting arrangement with any employee, agent or representative of the Company or (ii) induce, offer, assist, encourage or suggest that any employee, agent or representative of the Company, including its subsidiaries and joint ventures, terminate his or her employment or business affiliation with the Company or accept employment with any other business or enterprise.

(d) Confidential/Proprietary Trade Secret Information.

(i) Grantee agrees to keep secret and confidential all Confidential/Proprietary Trade Secret Information (further described below) acquired by Grantee while employed by the Company or concerning the business and affairs of the Company, its vendors, its customers, and its affiliates (whether of a business, commercial or technological nature), and further agrees that Grantee will not disclose any such Confidential/Proprietary Trade Secret Information so acquired to any individual, partner, company, firm, corporation or other person or use the same in any manner other than in connection with the business and affairs of the Company and its affiliates. Except in the performance of services for the Company, the Grantee will not, for so long as the Confidential/Proprietary Trade Secret Information remains so designated under applicable law, use, disclose, reproduce, distribute, transmit, reverse engineer, decompile, disassemble, or transfer the Confidential/Proprietary Trade Secret Information or any portion thereof.

(ii) For purposes of this Non-Competition Agreement, “Confidential/Proprietary Trade Secret Information” includes all information of a confidential or proprietary nature that relates to the business, products, services, research or development of the Company, and its affiliates or their respective suppliers, distributors, customers, independent contractors or other business relations. Confidential/Proprietary Trade Secret Information also includes, but is not limited to, the following: (A) internal business information (including information relating to strategic and staffing plans and practices, business, training, financial, marketing, promotional and sales plans and practices, cost, rate and pricing structures, accounting and business methods and customer and supplier lists); (B) identities of, individual requirements of, specific contractual arrangements with and information about, the Company’s suppliers, distributors, customers, independent contractors or other business relations and their confidential information; (C) trade secrets, copyrightable works and other confidential information (including ideas, formulas, recipes, compositions, inventions, innovations, improvements, developments, methods, know-how, manufacturing and production processes and techniques, research and development information, compilations of data and analyses, data and databases relating thereto, techniques, systems, records, manuals, documentation, models, drawings, specifications, designs, plans, proposals, reports and all similar or related information whether patentable or unpatentable and whether or not reduced to practice); (D) other intellectual property rights of the Company, or any of its affiliates; and (E) any other information that would constitute a trade secret under the Pennsylvania Uniform Trade Secrets Act, as amended from time to time (or any successor). The term “Confidential/Proprietary Trade Secret Information” also includes any information or data described above which the Company obtains from another party and which the Company treats as proprietary or designates as trade secrets, whether or not owned or developed by the Company.

(iii) All documents and materials supplied to Grantee or developed by Grantee in the course of, or as a result of Grantee’s employment at the Company whether in hard copy, electronic format or otherwise shall be the sole property of the Company. Grantee will at any time upon the request of the Company and in any event promptly upon termination of Grantee’s employment or relationship with the Company, but in any event no later than five (5) business days after such termination, deliver all such materials to the Company and will not retain any originals or copies of such materials, whether in hard copy form or as computerized and/or electronic records. Except to the extent approved by the Company or required by Grantee’s bona fide job duties for the Company, the Grantee also agrees that Grantee will not copy or remove from the Company’s place of business or the place of business of a customer of the Company, property or information belonging to the Company or the customer or entrusted to the Company or the customer. In addition, the Grantee agrees that Grantee will not provide any such materials to any competitor of or entity seeking to compete with the Company unless specifically approved in writing by the Company. Notwithstanding anything in paragraph 1(d)(3) of this Non-Competition Agreement to the contrary, if the Company needs to take legal action to secure such return delivery of such materials, Grantee shall be responsible for all legal fees, costs and expenses incurred by the Company in doing so.

2. Subsequent Employment.

(a) Advise the Company of New Employment. In the event of a cessation of Grantee’s employment with the Company, and during the Restricted Period described in paragraph 1 above, Grantee agrees to disclose to the Company, the name and address of any new employer or business affiliation within ten (10) calendar days of Grantee’s accepting such position. In the event that Grantee fails to notify the Company of such new employment or business affiliation as required above, the Restricted Period will be extended by a period equal to the period of nondisclosure.

(b) Grantee’s Ability to Earn Livelihood. Grantee acknowledges that, in the event of a cessation of Grantee’s employment with the Company, for any reason and at any time, the provisions of paragraph 1 of this Non-Competition Agreement will not unreasonably restrict Grantee’s ability to earn a living. Grantee and the Company acknowledge that Grantee’s rights have been limited by this Non-Competition Agreement only to the extent reasonably necessary to protect the legitimate interests of the Company in its Confidential/Proprietary Trade Secret Information.

3. Enforcement. Grantee agrees that if Grantee violates the covenants and agreements set forth in this Non-Competition Agreement, the Company would suffer irreparable harm, and that such harm to the Company may be impossible to measure in monetary damages. Accordingly, in addition to any other remedies which the Company may have at law or in equity, the Company will have the right to have all obligations, undertakings, agreements, covenants and other provisions of this Non-Competition Agreement specifically performed by Grantee, and the Company will have the right to obtain preliminary and permanent injunctive relief to secure specific performance, and to prevent a breach or contemplated breach, of this Non-Competition Agreement. In such event, the Company will be entitled to an accounting and repayment of all profits, compensation, remunerations or benefits which Grantee or others, directly or indirectly, have realized or may realize as a result of, growing out of, or in conjunction with any violation of this Non-Competition Agreement. Such remedies will be an addition to and not in limitation of any injunctive relief or other rights or remedies to which the Company is or may be entitled at law or in equity. In the event that the Company obtains any requested relief in any action brought to enforce the terms of this Non-Competition Agreement through court proceedings, the Company will be entitled to reimbursement for all legal fees, costs and expenses incident to enforcement.

4. Severability. If any section, paragraph, term or provision of this Non-Competition Agreement, or the application thereof, is determined by a competent court or tribunal to be invalid or unenforceable, then the other parts of such section, paragraph, term or provision will not be affected thereby and will be given full force and effect without regard to the invalid or unenforceable portions, and the section, paragraph, term or provision of this Non-Competition Agreement will be deemed modified to the extent necessary to render it valid and enforceable.

5. Miscellaneous.

(a) Employment.

(i) This Non-Competition Agreement does not constitute a guarantee of employment and termination of employment will not affect the enforceability of this Non-Competition Agreement.

(ii) Grantee agrees that if Grantee is transferred from the entity or division which was Grantee's employer at the time Grantee signed this Non-Competition Agreement to employment by another division or another company that is a subsidiary or affiliate of Harsco Corporation, and Grantee has not entered into a superseding agreement with the new employer covering the subject matter of this Non-Competition Agreement, then this Non-Competition Agreement will continue in effect and the Grantee's new employer will be termed "the Company" for all purposes hereunder and will have the right to enforce this Non-Competition Agreement as Grantee's employer. In the event of any subsequent transfer, Grantee's new employer will succeed to all rights under this Non-Competition Agreement so long as such employer will be Harsco Corporation or one of its subsidiaries or affiliates and so long as this Non-Competition Agreement has not been superseded.

(b) Headings. The headings contained in this Non-Competition Agreement are inserted for convenience of reference only, and will not be deemed to be a part of this Non-Competition Agreement for any purposes, and will not in any way define or affect the meaning, construction or scope of any of the provisions of this Non-Competition Agreement.

(c) Governing Law. This Non-Competition Agreement will be construed under the laws of the Commonwealth of Pennsylvania, without regard to its conflict of law provisions, and the parties consent and agree that the federal and state courts of the Commonwealth of Pennsylvania will have exclusive jurisdiction over any dispute relating to this Non-Competition Agreement.

(d) Supplemental Nature of this Non-Competition Agreement. The restrictions set forth in paragraph 1 of this Non-Competition Agreement will be in addition to any other such restrictive covenants agreed to through separate Non-Competition Agreements, if any, between Grantee and the Company and will survive the vesting or exercise of the equity award evidenced by the Agreement.

(e) Waiver. The failure by the Company to enforce any right or remedy available to it under this Non-Competition Agreement will not be construed to be a waiver of such right or remedy with respect to any other prior, concurrent or subsequent breach or failure. No waiver of rights under this Non-Competition Agreement will be effective unless made in writing with specific reference to this Non-Competition Agreement.

(f) Notification. Grantee agreed that the Company may notify any third party about Grantee’s obligations under this Non-Competition Agreement until such time as Grantee has performed all of Grantee’s obligations hereunder. Upon the Company’s request, Grantee agrees to provide the Company with information, including, but not limited to, supplying details of Grantee’s subsequent employment, sufficient to verify that Grantee has not breached, or is not breaching, any covenant in this Non-Competition Agreement.

(g) Acknowledgments.

(i) Grantee acknowledges and agrees that this Non-Competition Agreement is in consideration of, (A) the grant evidenced by the Agreement, (B) access to Confidential/Proprietary Trade Secret Information, as required by Grantee's job duties, and (C) access to important customer relationships and the associated customer goodwill of the Company.

(ii) Grantee acknowledges that he or she has carefully read and considered the provisions of this Non-Competition Agreement, and that this Non-Competition Agreement is reasonable as to time and scope and activities prohibited, given the Company’s need to protect its interests and given the consideration provided to Grantee in the form of the grant evidenced by the Agreement.

(iii) Grantee acknowledges that he or she has had an opportunity to consult with an independent legal counsel of Grantee’s choosing, and accept the grant contained in the Agreement and continuing employment on the terms set forth in this Non-Competition Agreement.

EXHIBIT B

Additional Terms and Conditions for International Employees

TERMS AND CONDITIONS

This Exhibit B (this “Exhibit”), which is part of the Agreement, contains additional terms and conditions that govern the SARs granted to the Grantee under the Plan if he or she resides outside the United States. The terms and conditions in Part A apply to *all* Grantees outside the United States. The country-specific terms and conditions and/or notifications in Part B will also apply to the Grantee if he or she resides in one of the countries listed below. Unless otherwise defined, capitalized terms used but not defined in this Exhibit have the meanings set forth in the Plan and/or the Agreement.

NOTIFICATIONS

This Exhibit also includes information regarding exchange controls and certain other issues of which the Grantee should be aware with respect to participation in the Plan. The information is based on the exchange control, securities and other laws in effect in the respective countries as of April 2016. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Grantee not rely on the information in this Exhibit as the only source of information relating to the consequences of his or her participation in the Plan because the information may be out of date at the time that the Grantee exercises the SARs or sell shares of Common Stock acquired under the Plan.

In addition, the information contained herein is general in nature and may not apply to the Grantee’s particular situation, and the Company is not in a position to assure the Grantee of a particular result. Accordingly, the Grantee is advised to seek appropriate professional advice as to how the relevant laws in his or her country may apply to the Grantee’s situation.

Finally, if the Grantee is a citizen or resident, or is considered a resident, of a country other than the one in which he or she is currently working, or transferred employment after the SARs were granted to him or her, the information contained herein may not be applicable. In addition, the Company shall, in its sole discretion, determine to what extent the additional terms and conditions included herein will apply to you under these circumstances.

A. ALL NON-U.S. COUNTRIES ADDITIONAL TERMS AND CONDITIONS

The following additional terms and conditions will apply to the Grantee if he or she resides in any country outside the United States.

Responsibility for Taxes. The following section replaces Section 9 of the Agreement in its entirety:

The Grantee acknowledges that, regardless of any action taken by the Company or, if different, the Grantee’s employer (the “Employer”), the ultimate liability for all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to the Grantee’s participation in the Plan and legally applicable to the Grantee (“Tax-Related Items”) is and remains the Grantee’s responsibility and may exceed the amount actually withheld by the Company or the Employer. The Grantee further acknowledges that the Company and/or the Employer (i) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the SARs, including, but not limited to, the grant, vesting or exercise of the SARs, the subsequent sale of shares of Common Stock acquired pursuant to such exercise and the receipt of any dividends; and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of the SARs to reduce or eliminate the Grantee's liability for Tax-Related Items or achieve any particular tax result. Further, if the Grantee is subject to Tax-Related Items in more than one jurisdiction between the Date of Grant and the date of any relevant taxable or tax withholding event, as applicable, the Grantee acknowledges that the Company and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to the relevant taxable or tax withholding event, as applicable, the Grantee agrees to make adequate arrangements satisfactory to the Company and/or the Employer to satisfy all Tax-Related Items. In this regard, the Grantee authorizes the Company and/or the Employer, or their respective agents, at their discretion, to satisfy the obligations with regard to all Tax-Related Items by any one or a combination of the following methods: (i) requiring payment by the Grantee to the Company, on demand, by cash, check or other method of payment as may be determined acceptable by the Company; or (ii) withholding from the Grantee's wages or other cash compensation paid to the Grantee by the Company and/or the Employer; or (iii) withholding from proceeds of the sale of shares of Common Stock acquired at exercise of the SARs either through a voluntary sale or through a mandatory sale arranged by the Company (on the Grantee's behalf pursuant to this authorization) without further consent; or (ii) withholding shares of Common Stock issuable at exercise of the SARs.

Depending on the withholding method, the Company may withhold or account for Tax-Related Items by considering applicable minimum statutory withholding amounts or other applicable withholding rates, including maximum applicable rates, in which case the Grantee will receive a refund of any over-withheld amount in cash and will have no entitlement to the Common Stock equivalent. If the obligation for Tax-Related Items is satisfied by withholding in shares of Common Stock, for tax purposes, the Grantee is deemed to have been issued the full number of shares of Common Stock subject to the exercised SARs, notwithstanding that a number of the shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items.

Finally, the Grantee agrees to pay to the Company or the Employer any amount of Tax-Related Items that the Company or the Employer may be required to withhold or account for as a result of the Grantee's participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the shares or the proceeds of the sale of shares of Common Stock, if the Grantee fails to comply with his or her obligations in connection with the Tax-Related Items.

Nature of Grant. In accepting the SARs, the Grantee acknowledges, understands and agrees that: (1) the Plan is established voluntarily by the Company, it is discretionary in nature, and may be amended, suspended or terminated by the Company at any time, to the extent permitted by the Plan; (2) all decisions with respect to future SARs or other grants, if any, will be at the sole discretion of the Company; (3) the Grantee is voluntarily participating in the Plan; (4) the SARs and any shares of Common Stock acquired under the Plan are not intended to replace any pension rights or compensation; (5) the future value of the shares of Common Stock underlying the SARs is unknown, indeterminable and cannot be predicted with certainty; (6) if the underlying shares of Common Stock do not increase in value, the SARs will have no value; (7) if the Grantee exercises the SARs and acquires shares of Common Stock, the value of such shares of Common Stock may increase or decrease in value, even below the Base Price; (8) no claim or entitlement to compensation or damages shall arise from forfeiture of the SARs resulting from the termination of the Grantee's employment or other service relationship (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any), and in consideration of the grant of the SARs to which the Grantee is otherwise not entitled, the Grantee irrevocably agrees never to institute any claim against the Company, any of its subsidiaries or affiliates or the Employer, waives his or her ability, if any, to bring any such claim, and releases the Company, its subsidiaries and affiliates and the Employer from any such claim; if, notwithstanding the foregoing, any such claim is allowed by a court of competent jurisdiction, then, by participating in the Plan, the Grantee shall be deemed irrevocably to have agreed not to pursue such claim and agrees to execute any and all documents necessary to request dismissal or withdrawal of such claim; (9) for purposes of the SARs, the Grantee's employment or service relationship will be considered terminated as of the date the Grantee is no longer actively providing services to the Company or one of its subsidiaries and affiliates (regardless of the reason for such termination and whether or not later found to be invalid or in breach of employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any), and unless otherwise expressly provided in the Agreement or determined by the Company, (i) the Grantee's right to vest in the SARs under the Plan, if any, will terminate as of such date and will not be extended by any notice period (*e.g.*, the Grantee's period of service would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Grantee is employed or providing services or the terms of the Grantee's employment or service agreement, if any); and (ii) the period (if any) during which the Grantee may exercise the SARs after such termination of the Grantee's employment or service relationship will commence on the date the Grantee ceases to actively provide services and will not be extended by any notice period mandated under employment laws in the jurisdiction where the Grantee is employed or providing services or terms of the Grantee's employment or service agreement, if any; and (iii) the Company shall have the exclusive discretion to determine when the Grantee is no longer actively providing services for purposes of his or her SARs grant (including whether the Grantee may still be considered to be providing services while on a leave of absence); (10) unless otherwise provided in the Plan or by the Company in its discretion, the SARs and the benefits evidenced by the Agreement do not create any entitlement to have the SARs or any such benefits transferred to, or assumed by, another company nor to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Company; (11) the SARs and any shares of Common Stock acquired under the Plan and the income and value of same, are not part of normal or expected compensation for any purpose, including, without limitation, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, long-service awards, pension, or retirement or welfare benefits or similar payments; and (12) the Grantee acknowledges and agrees that neither the Company, the Employer nor any Subsidiary of the Company shall be liable for any foreign exchange rate fluctuation between the Grantee's local currency and the United States Dollar that may affect the value of the SARs or of any amounts due to the Grantee pursuant to the exercise of the SARs or the subsequent sale of any shares of Common Stock acquired upon exercise of the SARs.

No Advice Regarding Grant. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding the Grantee's participation in the Plan, or the Grantee's acquisition or sale of the underlying shares of Common Stock. The Grantee is hereby advised to consult with his or her own personal tax, legal and financial advisors regarding his or her participation in the Plan before taking any action related to the Plan.

Data Privacy. The Grantee hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, including email, of the Grantee's personal data as described in the Agreement and any other SARs grant materials ("Data") by and among, as applicable, the Employer, the Company and its subsidiaries and affiliates for the exclusive purpose of implementing, administering and managing the Grantee's participation in the Plan.
The Grantee understands that the Company and the Employer may hold certain personal information about the Grantee, including, but not limited to, the Grantee's name, home address and telephone number, date of birth, social insurance number or other identification number, salary, nationality, job

title, any shares of stock or directorships held in the Company, details of all SARs or any other entitlement to shares of stock awarded, canceled, exercised, vested, unvested or outstanding in the Grantee's favor, for the exclusive purpose of implementing, administering and managing the Plan.

The Grantee understands that Data will be transferred to the Company's stock transfer agent and/or broker, or such other stock plan service provider as may be selected by the Company in the future, which is assisting the Company with the implementation, administration and management of the Plan. The Grantee understands that the recipients of the Data may be located in the United States or elsewhere (including outside the EEA), and that the recipient's country (e.g., the United States) may have different data privacy laws and protections than the Grantee's country. The Grantee understands that he or she may request a list with the names and addresses of any potential recipients of the Data by contacting his or her local human resources representative. The Grantee authorizes the Company, the Company's stock transfer agent and /or broker, and any other possible recipients which may assist the Company (presently or in the future) with implementing, administering and managing the Plan to receive, possess, use, retain and transfer the Data, in electronic or other form, for the sole purposes of implementing, administering and managing the Grantee's participation in the Plan. The Grantee understands that Data will be held only as long as is necessary to implement, administer and manage the Grantee's participation in the Plan. The Grantee understands that he or she may, at any time, view Data, request additional information about the storage and processing of Data, require any necessary amendments to Data or refuse or withdraw the consents herein, in any case without cost, by contacting in writing his or her local human resources representative. Further, the Grantee understands that he or she is providing the consents herein on a purely voluntary basis. If the Grantee does not consent, or if the Grantee later seeks to revoke his or her consent, his or her employment status or service and career with the Employer will not be adversely affected; the only adverse consequence of refusing or withdrawing the Grantee's consent is that the Company would not be able to grant the Grantee SARs or other equity awards or administer or maintain such awards. Therefore, the Grantee understands that refusing or withdrawing his or her consent may affect the Grantee's ability to participate in the Plan. For more information on the consequences of the Grantee's refusal to consent or withdrawal of consent, the Grantee understands that he or she may contact his or her local human resources representative.

Governing Law and Venue. The SARs grant and the provisions of the Agreement are governed by, and subject to, the internal substantive laws of the State of Delaware in the United States of America (with the exception of its conflict of law provisions).

For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by this grant or the Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the Commonwealth of Pennsylvania in the United States of America and agree that such litigation shall be conducted only in the courts of Cumberland County, the Commonwealth of Pennsylvania, or the federal courts for the United States of America for the Middle District of Pennsylvania, and no other courts, where this grant is made and/or to be performed.

Compliance with Law. The following provision supplements Section 7 of the Agreement:
Notwithstanding any other provision of the Plan or the Agreement, unless there is an available exemption from any registration, qualification or other legal requirement applicable to the shares of Common Stock, the Company shall not be required to deliver any shares of Common Stock issuable upon exercise of the SARs prior to the completion of any registration or qualification of the shares under any local, state, federal or foreign securities or exchange control law or under rulings or regulations of the U.S. Securities and Exchange Commission ("SEC") or of any other governmental regulatory body, or prior to obtaining any approval or other clearance from any local, state, federal or foreign governmental agency, which

registration, qualification or approval the Company shall, in its absolute discretion, deem necessary or advisable. The Grantee understands that the Company is under no obligation to register or qualify the shares with the SEC or any state or foreign securities commission or to seek approval or clearance from any governmental authority for the issuance or sale of the shares. Further, the Grantee agrees that the Company shall have unilateral authority to amend the Plan and the Agreement without the Grantee's consent to the extent necessary to comply with securities or other laws applicable to issuance of shares.

Electronic Delivery and Acceptance. The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means, including email. The Grantee hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company.

Language. If the Grantee has received the Agreement or any other document related to the SARs and/or the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

Severability. The provisions of the Agreement are severable and if any one or more provisions are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable.

Imposition of Other Requirements. The Company reserves the right to impose other requirements on the Grantee's participation in the Plan, on the SARs and on any shares of Common Stock purchased upon exercise of the SARs, to the extent the Company determines it is necessary or advisable for legal or administrative reasons, and to require the Grantee to sign any additional agreements or undertakings that may be necessary to accomplish the foregoing.

Waiver. The Grantee acknowledges that a waiver by the Company of breach of any provision of the Agreement shall not operate or be construed as a waiver of any other provision of the Agreement, or of any subsequent breach by the Grantee or any other Participant.

B. COUNTRY-SPECIFIC ADDITIONAL TERMS AND CONDITIONS AND NOTIFICATIONS

AUSTRALIA

TERMS AND CONDITIONS

Settlement of SARs. Notwithstanding anything to the contrary in the Agreement, due to local regulatory requirements, upon the vesting of the SARs, the Grantee will receive a cash payment in an amount equal to the value of the shares of Common Stock underlying the vested SARs on a vesting date. As long as the Grantee resides in Australia, he or she may not receive or hold shares of Common Stock in connection with the SARs under the Plan. Accordingly, any provisions in the Agreement referring to issuance of shares of Common Stock shall not be applicable to the Grantee as long as he or she resides in Australia.

NOTIFICATIONS
Exchange Control Information. Exchange control reporting is required for cash transactions exceeding $10,000 and international fund transfers. The Australian bank assisting with the transaction will file the report. If there is no Australian bank involved in the transfer, Grantee will be required to file the report.

BELGIUM

NOTIFICATIONS
Tax Reporting Information. Grantee is required to report any bank accounts opened and maintained outside of Belgium on his or her annual Belgian tax return.

BRAZIL

TERMS AND CONDITIONS
Compliance with Law. By accepting the SARs, the Grantee acknowledges that he or she agrees to comply with applicable Brazilian laws and pay any and all applicable taxes associated with the exercise of the SARs, the receipt of any dividends, and the sale of shares of Common Stock acquired under the Plan.

NOTIFICATIONS
Exchange Control Information. If the Grantee is resident or domiciled in Brazil, he or she will be required to submit annually a declaration of assets and rights held outside of Brazil to the Central Bank of Brazil if the aggregate value of such assets and rights is equal to or greater than US $100,000. Assets and rights that must be reported include shares of Common Stock.

CHINA

TERMS AND CONDITIONS
Settlement of SARs. Notwithstanding anything to the contrary in the SARs Agreement, due to local regulatory requirements, upon the vesting of the SARs the Grantee will receive a cash payment in China via the Company local Chinese payroll in an amount equal to the value of the shares of Common Stock underlying the vested SARs on the vesting date. As long as the Grantee resides in China, he or she may not receive or hold shares of Common Stock in connection with the SARs under the Plan. Accordingly, any provisions in the Agreement referring to issuance of shares of Common Stock shall not be applicable to the Grantee as long as he or she resides in China.

FRANCE

TERMS AND CONDITIONS
Consent to Receive Information in English. By accepting the grant of the SARs, the Grantee confirms having read and understood the Plan and the Agreement, which were provided in the English language. The Grantee accepts the terms of those documents accordingly.

En acceptant cette attribution gratuite d’actions, le Grantee confirme avoir lu et compris le Plan et ce Contrat, incluant tous leurs termes et conditions, qui ont été transmis en langue anglaise. Le Grantee accepte les dispositions de ces documents en connaissance de cause.

NOTIFICATIONS
Tax Notification. The SARs are not intended to be French tax-qualified.
Exchange Control Notification. The Grantee may hold shares of Common Stock acquired under the Plan outside of France provided that he or she declares all foreign accounts (including any accounts that

were opened or closed during the tax year) on his or her annual French income tax return.

INDIA

TERMS AND CONDITIONS

The Grantee hereby agrees that it shall hold the shares of the Common Stock pursuant to this Agreement and the Plan, at all times in accordance with the applicable laws in India, including but not limited to the (Indian) Foreign Exchange Management (Transfer or Issue of Any Foreign Security) Regulations, 2004 (and as amended or replaced), relevant master circulars, directions, notifications issued in this regard by the Reserve Bank of India from time to time and shall carry out the necessary reporting with the Reserve Bank of India at all stages of granting and vesting, if and as may be required. The Grantee agrees to indemnify the Company and/or Subsidiary of the Company with respect to any non-compliance and/or non-adherence by the Grantee of any of the applicable laws in India arising out of holding of the shares of the Common Stock by the Grantee.

The Grantee shall declare the holding of shares of the Common Stock, if and as may be necessary, in its income for taxation purposes and agrees to indemnify the Company and/or Subsidiary of the Company with respect to any and all taxes that it shall be obligated to pay with respect to the shares of the Common Stock such as including but not limited to income tax, capital gain taxes etc., under this Agreement and which may arise as a result of the sale of the shares of the Common Stock and the transactions contemplated hereunder.

LUXEMBOURG

NOTIFICATIONS

Exchange Control Information. Grantee understands that Grantee is required to report any inward remittances of funds to the Banque Centrale de Luxembourg and/or the Service Central de la Statistique et des Études Économiques within 15 working days following the month during which the transaction occurred unless such payment is reported by a Luxembourg-resident financial institution.

THE NETHERLANDS

TERMS AND CONDITIONS

Non-Competition Agreement. The non-competition agreement entered into between the Company and the Grantee shall be in addition to any non-compete arrangements between the Grantee and his or her employer.

SWITZERLAND

TERMS AND CONDITIONS

Vesting: With the acceptance of a Grant, the Grantee expressly acknowledges that any RSU, PSU and/or SAR shall not give the Grantee any right or entitlement until such Grant is fully vested. The Grant remains fully discretionary until full vesting.

Continuous Employment: In Switzerland, “continuously employed” (or substantially similar term) means the absence of any interruption or termination (issuance of termination notice) of the Grantee’s employment with the Company or with a Subsidiary of the Company. Continuous employment shall not be considered interrupted or terminated in the case of sick leave, military leave or any other leave of absence approved by the Company for which compensation needs to be paid by the Company or salary replacement benefits are granted by any insurance or in the case of transfers between locations of the

Company and its Subsidiaries. For the avoidance of any doubt, continuous employment ends in any case with the end of the employment, even if any salary replacement benefits continue to be paid by any insurance, pension scheme or social security.

Retirement: For the purpose of the Plan, only a retirement under the rules and conditions of the Swiss pension scheme of the Subsidiary employing the Grantee shall qualify as retirement for the purpose of vesting of RSU, PSU or termination of SAR, and only if such retirements is (A) at age 62 or older while employed by the Company or any of its Subsidiaries; or (B) at or after such time as the Grantee's age (minimum of age 55), plus full years of continuous employment by the Company or any of its Subsidiaries, equals 75.

Disability: For purposes of the Plan, the Grantee shall be considered "Disabled" if the Grantee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or qualifies as permanent full disability under the applicable Swiss social security and/or pension laws.

Non-Competition Agreement: For the avoidance of any doubt, any non-competition agreement entered into between the Grantee and the Company in connection with the Plan and grants thereunder shall be in addition to any non-competition agreement agreed between the Grantee and the employing Subsidiary and shall not replace such non-competition agreement.

NOTIFICATIONS

Exchange Control Notification. The Grantee may hold shares of Common Stock acquired under the Plan outside of Switzerland provided that he or she declares all foreign accounts (including any accounts that were opened or closed during the tax year) on his or her annual Swiss tax declaration.

UNITED ARAB EMIRATES

NOTIFICATIONS

Securities Law Notice. SARs under the Plan are granted only to select executive officers and other employees of the Company and its subsidiaries for the purpose of providing such eligible persons with incentives and rewards for performance. The Agreement, including this Exhibit, the Plan and any documents the Grantee may receive in connection with the SARs are intended for distribution to such eligible persons and must not be delivered to, or relied on, by any other person.

The Emirates Securities and Commodities Authority, the Central Bank, the Ministry of Economy and the Dubai Department of Economic Development do not have any responsibility for reviewing or verifying any documents in connection with the Plan nor have they reviewed or approved the Plan or the Agreement. The securities to which this statement relates may be illiquid and/or subject to restrictions on their resale. The Grantee and/or prospective purchasers of the securities offered should conduct their own due diligence on the securities.

If the Grantee does not understand the contents of the Agreement, including this Exhibit, or the Plan, the Grantee should consult an authorized financial adviser.

UNITED KINGDOM

TERMS AND CONDITIONS

U.K. Sub-Plan. The terms of the U.K. Sub-plan apply to the SARs.

FIRST AMENDMENT
to the
HARSCO CORPORATION
Deferred Compensation Plan for Non-Employee Directors

WHEREAS, Harsco Corporation (the "Company") has previously adopted the Deferred Compensation Plan for Non-Employee Directors (the "Plan") pursuant to which eligible members of its Board of Directors may elect to defer receipt of all or any portion of the compensation payable to them for services rendered to the Company as Directors; and

WHEREAS, the Company has reserved the right to amend the Plan pursuant to Section 16 of the Plan; and

WHEREAS, the Company desires to amend the Plan to clarify the forms of compensation which may be deferred under the Plan; and

NOW, THEREFORE, the Plan is hereby amended as follows:

1. Section 2 of the Plan is revised in its entirety to read as follows:
   2. <u>Deferrable Compensation</u>. A Non-Employee Director may elect to defer receipt of all, any part or none of the aggregate compensation payable by the Corporation for services rendered as a Director, including the annual base retainer, Committee Chairman annual retainer increment, attendance fees for board and committee meetings, grants under the 2016 Non-Employee Directors' Long-Term Equity Compensation Plan, including but not limited to Restricted Stock Units ("RSUs") and other fees for special services (in the aggregate, the "Director's Fees").

2. The first sentence of Section 3 of the Plan is revised in its entirety to read as follows:
   3. <u>Election To Defer</u>. A Non-Employee Director who desires to defer receipt of all or a portion of his Director's Fees in any calendar year shall so notify the Corporation's Pension Committee in writing before the first day of the calendar year, specifying on a form supplied by the Committee (a) the dollar amount or percentage of the Director's Fees to be deferred, (b) the deferral period, (c) the form of payment, and (d) the notional investment direction.

3. Section 5(a) of the Plan is revised in its entirety to read as follows:
   (a) Accounts: At the time a Non-Employee Director elects to defer the receipt of compensation pursuant to Paragraph 3 above, he shall also direct the amount of the deferral to be notionally invested in an Interest-Bearing Account and the amount to be notionally invested in a Harsco Stock Account. Notwithstanding the foregoing, the deferral of a RSU shall automatically be notionally invested in a Harsco Stock Account once such RSUs have become vested. Pursuant to such investment direction, the deferral amounts shall be credited to the appropriate accounts as set forth below:

4. Section 5(a)(ii) of the Plan is revised in its entirety to read as follows:
   (ii) *Harsco Stock Account*: To the extent that a Non-Employee Director elects a notional investment in a Harsco Stock Account (or a RSU deferral is automatically notionally invested in a Harsco Stock Account), the Corporation shall credit a Harsco Stock Account established in his name with units (including fractions), the number of which shall be obtained by dividing the amount of the deferred Director's Fees or vested RSUs for that period to be so invested, by the Fair Market Value of the Corporation's common stock on the day immediately preceding the date such

credit is to be made to the Account (i.e. February 14 for the February 15 credit date). This credit shall occur on a quarterly basis, as of each February 15, May 15, August 15 and November 15, for fees earned during the quarterly period ending on the day immediately preceding such crediting date.

5. The first sentence of Section 5(c) of the Plan is revised in its entirety to read as follows:
Except with respect to the investment of a RSU deferral, a Non-Employee Director may transfer all or part of the amount in one account to the other account by irrevocable written notice to the Corporation's Pension Committee.

IN WITNESS WHEREOF, the Company has caused this First Amendment to be duly executed this 26 day of April, 2016.

HARSCO CORPORATION
Computation of Ratios of Earnings to Fixed Charges

	YEARS ENDED DECEMBER 31														
(In thousands)	**2016 (a)**			**2015 (a)**			**2014 (a)**			**2013 (a)**			**2012 (a)**		
Pre-tax income (loss) from continuing operations attributable to Harsco shareholders	**$**	**(79,699)**	(b)	$	34,846		$	8,085		$	(199,381)	(c)	$	(227,211)	(d)
Add: Consolidated Fixed Charges computed below		**63,649**			62,720			67,181			78,637			80,073	
Net adjustments for unconsolidated entities		**(5,670)**			(147)			1,558			(1,511)			(256)	
Net adjustments for capitalized interest		**194**			466			(46)			53			128	
Consolidated Earnings Available for Fixed Charges	**$**	**(21,526)**	(b)	$	97,885		$	76,778		$	(122,202)	(c)	$	(147,266)	(d)
Consolidated Fixed Charges:															
Interest expense per financial statements (e)	**$**	**51,584**		$	46,804		$	47,111		$	49,654		$	47,381	
Interest expense capitalized		**—**			—			541			577			476	
Portion of rentals (1/3) representing a reasonable approximation of the interest factor		**12,065**			15,916			19,529			28,406			32,216	
Consolidated Fixed Charges	**$**	**63,649**		$	62,720		$	67,181		$	78,637		$	80,073	
Consolidated Ratio of Earnings to Fixed Charges		—	(b) (f)		1.56			1.14			—	(c) (g)		—	(d) (h)

(a) Does not include interest related to uncertain tax position obligations.
(b) During 2016, the Company recorded pre-tax charges of $43.5 million related to the sale of the Company's equity interest in Brand; pre-tax charges of $45.1 million related to an estimated forward loss provision related to the Company's contracts with the federal railway system of Switzerland; and pre-tax charges of $35.3 million loss on early extinguishment of debt.
(c) During 2013, the Company recorded a $272.3 million, non-cash pre-tax long-lived asset impairment charge.
(d) In the fourth quarter of 2012, the Company incurred a $265.0 million, pre-tax goodwill impairment charge.
(e) Includes amortization of debt discount.
(f) For the year ended December 31, 2016, the ratio coverage was less than 1:1. We would have needed to generate additional earnings of $85.2 million to achieve a coverage of 1:1.
(g) For the year ended December 31, 2013, the ratio coverage was less than 1:1. We would have needed to generate additional earnings of $200.8 million to achieve a coverage of 1:1.
(h) For the year ended December 31, 2012, the ratio coverage was less that 1:1. We would have needed to generate additional earnings of $227.3 million to achieve a coverage of 1:1.

HARSCO CORPORATION **Exhibit 21**

Subsidiaries of Registrant

Subsidiary	Country of Incorporation	Ownership Percentage
Harsco Metals Argentina S.A.	Argentina	100%
Harsco (Australia) Pty. Limited	Australia	100%
Harsco Industrial Air-X-Changers Pty. Ltd.	Australia	100%
Harsco Metals Australia Pty. Ltd.	Australia	100%
Harsco Metals Australia Holding Investment Co. Pty. Ltd.	Australia	100%
Harsco Rail Pty. Ltd.	Australia	100%
Harsco Minerals Austria GmbH	Austria	100%
AluServ Middle East W.L.L.	Bahrain	65%
Harsco Belgium S.P.R.L.	Belgium	100%
Harsco Metals Belgium S.A.	Belgium	100%
Harsco Metals Emirates Maatschap	Belgium	65%
Harsco Rail Emirates Maatschap/Societe de Droit Commun	Belgium	100%
Harsco Brazil Investments SPRL	Belgium	100%
Harsco Chile Investments SPRL	Belgium	100%
Harsco do Brasil Participacoes e Servicos Siderurgicos Ltda.	Brazil	100%
Harsco Metals Limitada	Brazil	100%
Harsco Minerais Limitada	Brazil	100%
Harsco Rail Ltda	Brazil	100%
Heckett Comercio de Rejeitos Industriais, Importacao e Exportacao Ltda	Brazil	100%
Harsco Canada Corporation Societe Harsco Canada	Canada	100%
Harsco Canada General Partner Limited	Canada	100%
Harsco Canada Limited Partnership	Canada	100%
Harsco Nova Scotia Holding Corporation	Canada	100%
Harsco Metals Chile S.A.	Chile	100%
Harsco Metals (Ningbo) Co. Ltd.	China	70%
Harsco (Tangshan) Metallurgical Materials Technology Co.,LTD.	China	65%
Harsco Metals Zhejiang Co. Ltd.	China	70%
JiangSu Harsco Industrial Grating Company Limited	China	100%
Shanxi TISCO-Harsco Technology Co., Ltd.	China	60%
Harsco APAC Rail Machinery (Beijing) Co., Ltd.	China	100%
Harsco Technology China Co., Ltd.	China	100%
Harsco Infrastructure CZ s.r.o	Czech Republic	100%
Czech Slag - Nova Hut s.r.o.	Czech Republic	65%
Harsco Metals CZ s.r.o	Czech Republic	100%
Harsco Metals Middle East FZE	Dubai	100%
Harsco Metals Egypt L.L.C.	Egypt	100%
Heckett Bahna Co. For Industrial Operations S.A.E.	Egypt	65%
Heckett MultiServ Bahna S.A.E.	Egypt	65%
Slag Processing Company Egypt (SLAR) S.A.E.	Egypt	60%
MultiServ Oy	Finland	100%

HARSCO CORPORATION **Exhibit 21**

Subsidiaries of Registrant

Subsidiary	Country of Incorporation	Ownership Percentage
Harsco Minerals France S.A.S.	France	100%
Harsco France S.A.S.	France	100%
Harsco Metals & Minerals SAS	France	100%
Harsco Minerals Deutschland GmbH	Germany	100%
Harsco Rail Europe GmbH	Germany	100%
Harsco Metals Germany Gmbh	Germany	100%
Harsco (Gibraltar) Holding Limited	Gibraltar	100%
Harsco Metals Guatemala S.A.	Guatemala	100%
Harsco China Holding Company Limited	Hong Kong	100%
Harsco Industrial Grating China Holding Co. Ltd.	Hong Kong	70%
Harsco Infrastructure Hong Kong Ltd.	Hong Kong	100%
Harsco India Metals Private Limited	India	99.99%
Harsco India Private Ltd.	India	91.75%
Harsco India Services Private Ltd.	India	100%
Harsco Track Machines and Services Private Limited	India	100%
Harsco Metals Italia S.R.L.	Italy	100%
Ilserv S.R.L.	Italy	65%
Harsco Metals Nord Italia S.R.L.	Italy	100%
Harsco Luxembourg S.a.r.l	Luxembourg	100%
Harsco Metals Luxembourg S.A.	Luxembourg	100%
Harsco Metals Luxequip S.A.	Luxembourg	100%
Excell Americas Holdings Ltd S.a.r.L.	Luxembourg	100%
Harsco Americas Investments S.a.r.l.	Luxembourg	100%
Harsco International Finance S.a.r.l.	Luxembourg	100%
Excell Africa Holdings Ltd Sarl	Luxembourg	100%
Ballagio S.A.R.L.	Luxembourg	100%
Harsco Metals Kemaman Sdn Bhd	Malaysia	100%
Harsco Industrial IKG de Mexico, S.A. de C.V.	Mexico	100%
Harsco Metals de Mexico S.A. de C.V.	Mexico	100%
Irving, S.A. de C.V.	Mexico	100%
Harsco Asia Investment B.V.	Netherlands	100%
Harsco Asia China Investment B.V.	Netherlands	100%
Harsco Asia Pacific Investment B.V.	Netherlands	100%
GasServ (Netherlands) VII B.V.	Netherlands	100%
Harsco (Mexico) Holdings B.V.	Netherlands	100%
Harsco Infrastructure Industrial Services B.V.	Netherlands	100%
Harsco Infrastructure B.V.	Netherlands	100%
Harsco Infrastructure Construction Services B.V.	Netherlands	100%
Harsco Infrastructure Logistic Services B.V.	Netherlands	100%
Harsco Investments Europe B.V.	Netherlands	100%
Harsco Metals Holland B.V.	Netherlands	100%
Harsco Metals Transport B.V.	Netherlands	100%

HARSCO CORPORATION **Exhibit 21**

Subsidiaries of Registrant

Subsidiary	Country of Incorporation	Ownership Percentage
Hunnebeck Nederland B.V.	Netherlands	100%
Harsco Metals Oostelijk Staal International B.V.	Netherlands	100%
Harsco Minerals Europe B.V.	Netherlands	100%
Harsco Nederland Slag B.V.	Netherlands	100%
Heckett MultiServ China B.V.	Netherlands	100%
Heckett MultiServ Far East B.V.	Netherlands	100%
MultiServ International B.V.	Netherlands	100%
MultiServ Finance BV	Netherlands	100%
Slag Reductie (Pacific) B.V.	Netherlands	100%
Slag Reductie Nederland B.V.	Netherlands	100%
Harsco (Peru) Holdings B.V.	Netherlands	100%
Harsco Europa B.V.	Netherlands	100%
Harsco Finance B.V.	Netherlands	100%
SGB Industrial Services BV	Netherlands	100%
Harsco Infrastructure SSH BV	Netherlands	100%
Minerval Metallurgic Additives BV	Netherlands	100%
Harsco Metals SteelServ Limited	New Zealand	50%
Harsco Infrastructure Norge A.S.	Norway	100%
Harsco Metals Norway A.S.	Norway	100%
Harsco Minerals Arabia LLC (FZC)	Oman	100%
Harsco Steel Mill Trading Arabia LLC	Oman	100%
Harsco Metals Peru S.A.	Peru	100%
Harsco Metals Polska SP Z.O.O.	Poland	100%
Harsco Metals CTS Prestacao de Servicos Tecnicos e Aluguer de Equipamentos LDA Unipessoal	Portugal	100%
Harsco Metals Saudi Arabia Ltd.	Saudi Arabia	55%
Harsco Metals D.O.O. Smederevo	Serbia	100%
Harsco Infrastructure Slovensko s.r.o.	Slovak Republic	100%
Harsco Metals Slovensko s.r.o.	Slovak Republic	100%
Harsco Minerali d.o.o.	Slovenia	100%
Harsco Metals RSA Africa (Pty.) Ltd.	South Africa	100%
Harsco Metals South Africa (Pty.) Ltd.	South Africa	100%
Harsco Metals SRH Mill Services (Pty.) Ltd.	South Africa	100%
Harsco Metals SteelServ (Pty.) Ltd.	South Africa	100%
Harsco Metals Ilanga Pty. Ltd.	South Africa	100%
MultiServ Technologies (South Africa) (Pty.) Ltd.	South Africa	100%
Harsco Infrastructure South Africa (Pty.) Ltd.	South Africa	100%
Heckett MultiServ (FS) Pty Ltd	South Africa	100%
Harsco Metal Reclamation SPV (Pty.) Ltd.	South Africa	100%
Harsco Metals Gesmafesa S.A.	Spain	100%
Harsco Metals Intermetal S.A.	Spain	100%
Harsco Metals Lycrete S.A.	Spain	100%
Harsco Metals Reclamet S.A.	Spain	100%
Harsco Infrastructure Sverige A.B.	Sweden	100%

Exhibit 21

Subsidiary	Country of Incorporation	Ownership Percentage
Harsco Metals Sweden A.B.	Sweden	100%
Montanus Industriforvaltning A.B.	Sweden	100%
MultiServe (Sweden) A.B.	Sweden	100%
MultiServe Technologies (Sweden) A.B.	Sweden	100%
Harsco Rail Switzerland GmbH	Switzerland	100%
Harsco Switzerland Finance GmbH	Switzerland	100%
Harsco Switzerland Holdings GmbH	Switzerland	100%
Harsco Metals (Thailand) Company Ltd.	Thailand	100%
Harsco Sun Demiryolu Ekipmanlari Uretim Ve Ticaret Limited Sirketi	Turkey	51%
Faber Prest Limited	U.K.	100%
Fourninezero Ltd.	U.K.	100%
Harsco (U.K.) Limited	U.K.	100%
Harsco (UK) Group Ltd	U.K.	100%
Harsco (UK) Holdings Ltd	U.K.	100%
Harsco (York Place) Limited	U.K.	100%
Harsco Fairerways Limited Partnership	U.K.	100%
Harsco Fairestways Limited Partnership	U.K.	100%
Harsco Fairways Partnership	U.K.	100%
Harsco Higherlands Limited Partnership	U.K.	100%
Harsco Highestlands Limited Partnership	U.K.	100%
Harsco Infrastructure Group Ltd.	U.K.	100%
Harsco Infrastructure Services Ltd.	U.K.	100%
Harsco Investment Ltd.	U.K.	100%
Harsco Leatherhead Limited	U.K.	100%
Harsco Metals 385 Ltd	U.K.	100%
Harsco Metals Group Limited	U.K.	100%
Harsco Metals Holdings Limited	U.K.	100%
Harsco Mole Valley Limited	U.K.	100%
Harsco Rail Limited	U.K.	100%
Harsco Surrey Limited	U.K.	100%
MultiServ Investment Limited	U.K.	100%
SGB Investments Ltd.	U.K.	100%
Short Brothers (Plant) Ltd.	U.K.	100%
Harsco Global Sourcing Limited	U.K.	100%
Harsco Metals 373 Ltd	U.K.	100%
Heckett Limited	U.K.	100%
Harsco Metals Ltd	U.K.	100%
Masterclimbers Ltd	U.K.	100%
Harsco Track Technologies Ltd	U.K.	100%
MultiServ Limited	U.K.	100%
MultiServ Logistics Limited	U.K.	100%
The Slag Reduction Company Limited	U.K.	100%
Cuplok Limited	U.K.	100%
Extraguard Limited	U.K.	100%
Parker Scaffolding Co Limited	U.K.	100%

Rovacabin Limited	U.K.	100%

HARSCO CORPORATION **Exhibit 21**

Subsidiaries of Registrant

Subsidiary	Country of Incorporation	Ownership Percentage
Scaffolding (Great Britain) Limited	U.K.	100%
SGB Holdings Limited	U.K.	100%
SGB Middle East Limited	U.K.	100%
SGB Services (Scaffolding) Limited	U.K.	100%
Harsco Defense Holding, LLC	U.S.A.	100%
Harsco Financial Holdings, Inc.	U.S.A.	100%
Harsco Holdings, Inc.	U.S.A.	100%
Harsco Infrastructure Holdings, Inc.	U.S.A.	100%
Harsco Metals Holding LLC	U.S.A.	100%
Harsco Metals Intermetal LLC	U.S.A.	100%
Harsco Metals Investment LLC	U.S.A.	100%
Harsco Metals Operations LLC	U.S.A.	100%
Harsco Metals SRI LLC	U.S.A.	100%
Harsco Metals VB LLC	U.S.A.	100%
Harsco Metro Rail, LLC	U.S.A.	100%
Harsco Minerals Technologies LLC	U.S.A.	100%
Harsco Minnesota Finance, Inc.	U.S.A.	100%
Harsco Minnesota LLC	U.S.A.	100%
Harsco Rail, LLC	U.S.A.	100%
Harsco Technologies LLC	U.S.A.	100%
Protran Technology LLC	U.S.A	100%

Companies in which Harsco Corporation does not exert management control are not consolidated. These companies are listed below as unconsolidated entities.

Company Name	Country of Incorporation	Ownership Percentage
P.T. Purna Baja Harsco	Indonesia	40%

Exhibit 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Forms S-8 (Nos. 333-13175, 333-13173, 333-59832, 333-70710, 333-114958, 333-188448, and 333-211203) of Harsco Corporation of our report dated February 24, 2017 relating to the financial statements, financial statement schedule, and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/PricewaterhouseCoopers LLP
Philadelphia, Pennsylvania
February 24, 2017

Exhibit 31.1

HARSCO CORPORATION
CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, F. Nicholas Grasberger, III, certify that:

1. I have reviewed this Annual Report on Form 10-K of Harsco Corporation;

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(s) 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(s) 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.

February 24, 2017

/s/ F. NICHOLAS GRASBERGER, III

F. Nicholas Grasberger, III

President and Chief Executive Officer

Exhibit 31.2

HARSCO CORPORATION
CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a)
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Peter F. Minan, certify that:

1. I have reviewed this Annual Report on Form 10-K of Harsco Corporation;

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(s) 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(s) 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.

February 24, 2017

/s/ PETER F. MINAN

Peter F. Minan
Senior Vice President and Chief Financial Officer

Exhibit 32

HARSCO CORPORATION
CERTIFICATIONS PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Harsco Corporation (the "Company") on Form 10-K for the period ending December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of our knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

February 24, 2017

/s/ F. NICHOLAS GRASBERGER, III

F. Nicholas Grasberger, III
President and Chief Executive Officer

/s/ PETER F. MINAN

Peter F. Minan
Senior Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Harsco Corporation and will be retained by Harsco Corporation and furnished to the Securities and Exchange Commission or its staff upon request.