FEDERAL SIGNAL CORP /DE/
Form 10-Q
August 08, 2017
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q
(Mark One)
x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2017
OR
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission file number: 1-6003

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

Delaware	36-1063330
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1415 West 22nd Street, Oak Brook, Illinois	60523
(Address of principal executive offices)	(Zip code)

Registrant's telephone number including area code: (630) 954-2000

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 þ No ¨
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, 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 þ No ¨
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	þ		Accelerated filer	¨
Non-accelerated filer	¨	(Do not check if a smaller reporting company)	Smaller reporting company	¨
Emerging growth company	¨			

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

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

As of July 31, 2017, the number of shares outstanding of the registrant’s common stock was 59,947,603.

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q ("Form 10-Q") is being filed by Federal Signal Corporation and its subsidiaries (referred to collectively as the "Company," "we," "our" or "us" herein, unless the context otherwise indicates) with the United States ("U.S.") Securities and Exchange Commission (the "SEC"), and includes comments made by management that may contain words such as "may," "will," "believe," "expect," "anticipate," "intend," "plan," "project," "estimate" and "objective" terminology, or the negative thereof, concerning the Company's future financial performance, business strategy, plans, goals and objectives. These expressions are intended to identify forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the Private Securities Litigation Reform Act of 1995.

Forward-looking statements include information concerning the Company's possible or assumed future performance or results of operations and are not guarantees. While these statements are based on assumptions and judgments that management has made in light of industry experience as well as perceptions of historical trends, current conditions, expected future developments and other factors believed to be appropriate under the circumstances, they are subject to risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different.

These risks and uncertainties, some of which are beyond the Company's control, include the risk factors described under Part I, Item 1A, Risk Factors, of the Company's Annual Report on Form 10-K for the year ended December 31, 2016, which was filed with the SEC on February 28, 2017. These factors may not constitute all factors that could cause actual results to differ materially from those discussed in any forward-looking statement. The Company operates in a continually changing business environment and new factors emerge from time to time. The Company cannot predict such factors, nor can it assess the impact, if any, of such factors on its results of operations, financial condition or cash flow. Accordingly, forward-looking statements should not be relied upon as a predictor of actual results. The Company disclaims any responsibility to update any forward-looking statement provided in this Form 10-Q.

ADDITIONAL INFORMATION

The Company is subject to the reporting and information requirements of the Exchange Act and, as a result, is obligated to file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other reports and information with the SEC, as well as amendments to those reports. The Company makes these filings available free of charge through our website at www.federalsignal.com as soon as reasonably practicable after such materials are filed with, or furnished to, the SEC. Information on our website does not constitute part of this Form 10-Q. In addition, the SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding issuers that file electronically. All materials that we file with, or furnish to, the SEC may also be read or copied at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330.

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PART I. FINANCIAL INFORMATION
Item 1. Financial Statements (Unaudited).
FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

(in millions, except per share data)	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Net sales	$224.4	$172.3	$402.2	$345.1
Cost of sales	169.7	127.3	303.9	252.7
Gross profit	54.7	45.0	98.3	92.4
Selling, engineering, general and administrative expenses	34.9	30.3	66.4	59.9
Acquisition and integration-related expenses	1.0	0.4	1.5	0.9
Restructuring	0.1	—	0.4	1.2
Operating income	18.7	14.3	30.0	30.4
Interest expense	1.3	0.4	1.9	0.8
Debt settlement charges	—	—	—	0.3
Other income, net	(0.2)	(0.3)	(0.5)	(1.0)
Income before income taxes	17.6	14.2	28.6	30.3
Income tax expense	6.1	4.8	9.9	10.5
Income from continuing operations	11.5	9.4	18.7	19.8
(Loss) gain from discontinued operations and disposal, net of income tax (benefit) expense of $(0.1), $(0.3), $0.0 and $4.1, respectively	(0.1)	(0.3)	—	2.9
Net income	$11.4	$9.1	$18.7	$22.7
Basic earnings per share:				
Earnings from continuing operations	$0.19	$0.16	$0.31	$0.32
(Loss) earnings from discontinued operations and disposal, net of tax	—	(0.01)	—	0.05
Net earnings per share	$0.19	$0.15	$0.31	$0.37
Diluted earnings per share:				
Earnings from continuing operations	$0.19	$0.15	$0.31	$0.32
(Loss) earnings from discontinued operations and disposal, net of tax	—	—	—	0.05
Net earnings per share	$0.19	$0.15	$0.31	$0.37
Weighted average common shares outstanding:				
Basic	59.7	60.1	59.7	61.1
Diluted	60.3	60.9	60.3	61.9
Cash dividends declared per common share	$0.07	$0.07	$0.14	$0.14

See notes to condensed consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
(in millions)	2017	2016	2017	2016
Net income	$11.4	$9.1	$18.7	$22.7
Other comprehensive income (loss):				
Change in foreign currency translation adjustment	5.0	(3.1)	6.2	6.0
Change in unrecognized net actuarial losses related to pension benefit plans, net of income tax expense of $0.3, $0.7, $0.5 and $1.5, respectively	(0.1)	2.0	0.1	3.8
Change in unrealized net gain on derivatives, net of income tax expense of $0.2, $0.0, $0.2 and $0.0, respectively	0.2	—	0.2	(0.1)
Total other comprehensive income (loss)	5.1	(1.1)	6.5	9.7
Comprehensive income	$16.5	$8.0	$25.2	$32.4

See notes to condensed consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

(in millions, except per share data)	June 30, 2017 (Unaudited)	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 37.0	$ 50.7
Accounts receivable, net of allowances for doubtful accounts of $1.0 and $0.8, respectively	117.5	81.3
Inventories	139.7	120.1
Prepaid expenses and other current assets	8.7	7.5
Total current assets	302.9	259.6
Properties and equipment, net of accumulated depreciation of $106.7 and $101.3, respectively	63.9	42.9
Rental equipment, net of accumulated depreciation of $15.2 and $9.7, respectively	83.8	80.8
Goodwill	372.2	236.5
Intangible assets, net of accumulated amortization of $1.3 and $0.5, respectively	162.8	10.2
Deferred tax assets	6.7	8.2
Deferred charges and other assets	4.2	3.9
Long-term assets of discontinued operations	1.1	1.1
Total assets	$ 997.6	$ 643.2
LIABILITIES AND STOCKHOLDERS’ EQUITY		
Current liabilities:		
Current portion of long-term borrowings and capital lease obligations	$ 0.3	$ 0.5
Accounts payable	66.7	35.3
Customer deposits	6.5	4.5
Accrued liabilities:		
Compensation and withholding taxes	17.6	13.8
Other current liabilities	40.8	28.7
Current liabilities of discontinued operations	0.8	2.1
Total current liabilities	132.7	84.9
Long-term borrowings and capital lease obligations	288.9	63.5
Long-term pension and other postretirement benefit liabilities	57.5	61.1
Deferred gain	9.7	10.7
Deferred tax liabilities	67.4	—
Other long-term liabilities	27.0	26.9
Long-term liabilities of discontinued operations	2.0	2.0
Total liabilities	585.2	249.1
Stockholders’ equity:		
Common stock, $1 par value per share, 90.0 shares authorized, 65.9 and 65.4 shares issued, respectively	65.9	65.4
Capital in excess of par value	204.4	200.3
Retained earnings	312.1	301.8
Treasury stock, at cost, 6.0 and 5.8 shares, respectively	(84.5)	(81.4)
Accumulated other comprehensive loss	(85.5)	(92.0)
Total stockholders’ equity	412.4	394.1
Total liabilities and stockholders’ equity	$ 997.6	$ 643.2

See notes to condensed consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

(in millions)	Six Months Ended June 30, 2017	2016
Operating activities:		
Net income	$18.7	$22.7
Adjustments to reconcile net income to net cash provided by operating activities:		
Loss (gain) from discontinued operations and disposal	—	(2.9)
Depreciation and amortization	12.3	7.2
Deferred financing costs	0.2	0.5
Deferred gain	(1.0)	(0.9)
Stock-based compensation expense	2.7	2.2
Pension expense, net of funding	(2.8)	(2.2)
Deferred income taxes	2.8	7.0
Changes in operating assets and liabilities, net of effects of acquisitions and discontinued operations	12.9	(29.7)
Net cash provided by continuing operating activities	45.8	3.9
Net cash (used for) provided by discontinued operating activities	(0.3)	1.3
Net cash provided by operating activities	45.5	5.2
Investing activities:		
Purchases of properties and equipment	(2.7)	(3.6)
Payments for acquisitions, net of cash acquired	(269.2)	(102.6)
Other, net	0.1	(0.5)
Net cash used for continuing investing activities	(271.8)	(106.7)
Net cash (used for) provided by discontinued investing activities	(1.1)	88.0
Net cash used for investing activities	(272.9)	(18.7)
Financing activities:		
Increase in revolving lines of credit, net	223.0	64.8
Payments on long-term borrowings	—	(43.4)
Payments of debt financing fees	(0.2)	(1.1)
Purchases of treasury stock	—	(33.1)
Redemptions of common stock to satisfy withholding taxes related to stock-based compensation	(2.4)	(2.6)
Cash dividends paid to stockholders	(8.4)	(8.6)
Proceeds from stock-based compensation activity	1.2	0.2
Other, net	(0.2)	(0.4)
Net cash provided by (used for) continuing financing activities	213.0	(24.2)
Net cash provided by discontinued financing activities	—	0.7
Net cash provided by (used for) financing activities	213.0	(23.5)
Effects of foreign exchange rate changes on cash and cash equivalents	0.7	(0.3)
Decrease in cash and cash equivalents	(13.7)	(37.3)
Cash and cash equivalents at beginning of year	50.7	76.0
Cash and cash equivalents at end of period	$37.0	$38.7

See notes to condensed consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Unaudited)

(in millions)	Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at January 1, 2017	$ 65.4	$ 200.3	$ 301.8	$ (81.4)	$ (92.0)	$ 394.1
Net income			18.7			18.7
Total other comprehensive income					6.5	6.5
Cash dividends declared			(8.4)			(8.4)
Stock-based payments:						
Stock-based compensation		2.1				2.1
Stock option exercises and other	0.3	2.2		(1.2)		1.3
Performance share unit transactions	0.2	(0.2)		(1.9)		(1.9)
Balance at June 30, 2017	$ 65.9	$ 204.4	$ 312.1	$ (84.5)	$ (85.5)	$ 412.4

(in millions)	Common Stock	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at January 1, 2016	$ 64.8	$ 195.6	$ 274.9	$ (40.9)	$ (88.8)	$ 405.6
Net income			22.7			22.7
Total other comprehensive income					9.7	9.7
Cash dividends declared			(8.6)			(8.6)
Stock-based payments:						
Stock-based compensation		1.7				1.7
Stock option exercises and other	0.1	0.5		(0.2)		0.4
Performance share unit transactions	0.4	(0.4)		(2.4)		(2.4)
Stock repurchase program				(33.1)		(33.1)
Balance at June 30, 2016	$ 65.3	$ 197.4	$ 289.0	$ (76.6)	$ (79.1)	$ 396.0

See notes to condensed consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization and Description of the Business

Federal Signal Corporation was founded in 1901 and was reincorporated as a Delaware corporation in 1969. References herein to the "Company," "we," "our" or "us" refer collectively to Federal Signal Corporation and its subsidiaries. Products manufactured and supplied, and services rendered by the Company are divided into two major operating segments: the Environmental Solutions Group and the Safety and Security Systems Group. The individual operating businesses are organized as such because they share certain characteristics, including technology, marketing, distribution and product application, which create long-term synergies. The Company's reportable segments are consistent with its operating segments. These segments are discussed in Note 11 – Segment Information.

Basis of Presentation and Consolidation

The accompanying unaudited condensed consolidated financial statements represent the consolidation of Federal Signal Corporation and its subsidiaries included herein and have been prepared by the Company pursuant to the rules and regulations of the United States ("U.S.") Securities and Exchange Commission (the "SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles ("GAAP") have been condensed or omitted pursuant to such rules and regulations, although the Company believes that the disclosures are adequate to ensure the information presented is not misleading. These condensed consolidated financial statements have been prepared in accordance with the Company's accounting policies described in the Company's Annual Report on Form 10-K for the year ended December 31, 2016, and should be read in conjunction with those consolidated financial statements and the notes thereto.

In addition, as discussed in Note 2 – Acquisitions, on June 2, 2017, the Company completed the acquisition of all of the outstanding shares of capital stock of GenNx/TBEI Intermediate Co., a Delaware corporation ("TBEI"). TBEI is a leading U.S. manufacturer of dump truck bodies and trailers serving maintenance and infrastructure end-markets. The Condensed Consolidated Balance Sheet as of June 30, 2017 includes preliminary fair values assigned to the assets acquired and liabilities assumed in connection with the acquisition, whereas the Condensed Consolidated Statements of Operations for the three and six months ended June 30, 2017 include the post-acquisition operating results of TBEI.

These condensed consolidated financial statements include all normal and recurring adjustments that we considered necessary to present a fair statement of our results of operations, financial condition and cash flow. Intercompany balances and transactions have been eliminated in consolidation.

The results reported in these condensed consolidated financial statements should not be regarded as necessarily indicative of results that may be expected for the entire year. While we label our quarterly information using a calendar convention whereby our first, second and third quarters are labeled as ending on March 31, June 30 and September 30, respectively, it is our longstanding practice to establish interim quarterly closing dates based on a 13-week period ending on a Saturday, with our fiscal year ending on December 31. The effects of this practice are not material and exist only within a reporting year.

Recent Accounting Pronouncements and Accounting Changes

In May 2014, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers (Topic 606), which supersedes the revenue recognition requirements in Accounting Standards Codification ("ASC") 605, Revenue Recognition. This ASU is based on the principle that revenue is recognized to depict the transfer of 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 ASU also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments, and assets recognized from costs incurred to obtain or fulfill a contract. The ASU allows either a "full retrospective" adoption, in which the standard is applied to all periods presented in the financial statements, or a "modified retrospective" adoption, in which the guidance is applied retrospectively only to the most current period presented in the financial statements, with the cumulative effect of initially applying the new standard being recognized as an adjustment to the opening balance of retained earnings at the date of initial application. As originally proposed, this guidance was effective for annual reporting periods beginning on or after December 15, 2016, including interim periods within that reporting period, and early adoption was not permitted. In August 2015, the FASB issued ASU 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which deferred the effective date of the new revenue recognition requirements to annual reporting periods beginning on or after December 15, 2017, including interim periods within that reporting period. Under ASU 2015-14, companies are permitted to adopt the guidance early, but no earlier than the original effective date outlined in ASU 2014-09. The FASB has issued a number of amendments to ASU 2014-09 that are intended to address implementation issues that were raised by stakeholders and provide additional practical expedients to reduce the cost and complexity of applying the new revenue standard. These amendments have the same effective date as ASU 2014-09.

The new revenue standard will be effective for the Company beginning January 1, 2018, and we expect to apply the “modified retrospective” method of adoption. In preparation for the adoption of the new standard, the Company has established a project management team responsible for analyzing the impact of ASU 2014-09, and the related amendments, across all revenue streams. The project management team is currently reviewing current accounting policies and practices, including a representative sample of contracts with customers, to identify potential differences that would result from applying the requirements under the new standard. In addition, the Company is in the process of designing and implementing the appropriate controls over gathering and reporting the information required to support the expanded disclosure requirements. The Company’s revenue is primarily generated from the sale of finished products to customers. Those sales predominantly contain a single delivery element and revenue is recognized at a single point in time when ownership, risks and benefits transfer. The timing of revenue recognition for these transactions is not expected to be significantly impacted by the new standard. While the Company has not yet completed its assessment of the impact of the new standard and is in the early stages of analyzing accounting policies and contracts for its recent acquisition, based on the analysis completed to date, the Company does not expect that the adoption of the revised guidance will have a material impact on its financial position, results of operations, or cash flows. We anticipate the primary impact to be the additional required disclosures around revenue recognition in the notes to the consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842), which requires organizations that are lessees in operating leases to recognize right-of-use assets and lease liabilities on the balance sheet and requires disclosure of key qualitative and quantitative information about leasing agreements by both lessors and lessees. For a lease to meet the requirements for accounting under a sale-leaseback transaction, it must meet the criteria for a sale in ASC 606, Revenue from Contracts with Customers. Entities are required to recognize and measure operating leases at the beginning of the earliest period presented using a modified retrospective approach. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Payments, which provides additional guidance on the financial statement presentation of certain activities in the statement of cash flows. The activities addressed by this guidance that may be relevant to the Company include cash payments for debt prepayment or debt extinguishment costs, contingent consideration payments made after a business combination, proceeds from the settlement of insurance claims and proceeds from the settlement of corporate-owned life insurance policies, and the application of the predominance principle. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years. The amendments in this ASU should be applied using a retrospective transition method to each period presented. If it is impracticable to apply the amendments retrospectively for some of the issues, the amendments for those issues would be applied prospectively as of the earliest date practicable. The Company currently expects to adopt this guidance effective January 1, 2018 and does not expect that its adoption will have a material impact on its historical cash flow presentation.

In October 2016, the FASB issued ASU No. 2016-16, Income Taxes (Topic 740), Intra-Entity Transfers of Assets Other Than Inventory. This guidance requires the income tax consequences of an intra-entity transfer of an asset other than inventory to be recognized when the transfer occurs, instead of when the asset is sold to an outside party. The pronouncement is effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within those annual reporting periods, with early adoption permitted. The amendments in this ASU should be applied on a modified retrospective basis, with an adjustment reflecting the cumulative effect of adoption being recorded directly to retained earnings as of the beginning of the period of adoption. The Company currently expects to adopt this guidance effective January 1, 2018 and does not expect that its adoption will have a material impact on its consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-07, Compensation – Retirement Benefits (Topic 715), Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. This guidance requires that only the service cost component is included on the same line as other compensation costs on the statements of operations. All other components of net periodic pension cost should be reported separately from the service cost component and outside a subtotal of operating income. The guidance also specifies that only the service cost component of net periodic pension cost is eligible for capitalization. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years. The amendments related to the presentation of the service cost and other components of net periodic pension cost included in this ASU should be applied retrospectively, whereas the amendments relating to the capitalization of the service cost component of net periodic pension cost should be applied prospectively. The Company currently expects to adopt this guidance effective January 1, 2018 and does not expect that its adoption will have a material impact on its consolidated financial statements.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect (i) the reported amounts of assets and liabilities, (ii) the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and (iii) the reported amounts of revenues and expenses during the reporting period. Significant estimates and assumptions are used for, but are not limited to, revenue recognition, workers' compensation and product liability reserves, asset impairment, pension and other post-retirement benefit obligations, income tax contingency accruals and valuation allowances, and litigation-related accruals. Actual results could differ from those estimates.

As described in Note 2 – Acquisitions, amounts allocated to certain assets acquired and liabilities assumed in connection with current-year acquisitions are considered preliminary as of June 30, 2017 and are subject to change during the measurement period.

Significant Accounting Policies

There have been no changes to the Company's significant accounting policies as disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

NOTE 2 – ACQUISITIONS

Acquisition of TBEI

On June 2, 2017, the Company completed the acquisition of all of the outstanding shares of capital stock of TBEI. TBEI is a leading U.S. manufacturer of dump truck bodies and trailers serving maintenance and infrastructure end markets. The Company expects that the acquisition of TBEI will enable it to strengthen its market position as a specialty vehicle manufacturer in maintenance and infrastructure markets, leverage its expertise in building chassis-based vehicles and balance the mix of revenues it generates from municipal and industrial markets. As the acquisition closed on June 2, 2017, the assets and liabilities of TBEI have been consolidated into the Condensed Consolidated Balance Sheet as of June 30, 2017, while the post-acquisition results of operations have been included in the Condensed Consolidated Statements of Operations, within the Environmental Solutions Group.

The initial cash consideration paid by the Company to acquire TBEI was approximately $271.8 million, inclusive of cash acquired and a preliminary working capital adjustment. Any additional working capital adjustment is expected to be finalized before the end of the fourth quarter of 2017.

The acquisition is being accounted for in accordance with ASC 805, Business Combinations. Accordingly, the total purchase price has been allocated on a preliminary basis to assets acquired and liabilities assumed in connection with the acquisition based on their estimated fair values as of the completion of the acquisition. A single estimate of fair value results from a complex series of judgments about future events and uncertainties and relies heavily on estimates and assumptions. The Company's judgments used to determine the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives, can materially impact the Company's results of operations. Due to the proximity of the date of acquisition to the date of issuance of the condensed consolidated financial statements, the Company's purchase price allocation as of June 30, 2017 reflects various provisional estimates that were based on the information that was available as of the acquisition date and the subsequent filing date of this Form 10-Q. The Company believes that information provides a reasonable basis for estimating the fair values of assets acquired and liabilities assumed, however the determination of those fair values is not yet finalized. Thus, the preliminary measurements of fair value set forth in the table below are subject to change during the measurement period as valuations are finalized, including those performed by a third-party valuation specialist related to certain of the acquired tangible and intangible assets. The Company expects to finalize the valuations and complete the purchase price allocation as soon as practicable.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS — (CONTINUED)
(Unaudited)

The following table summarizes the preliminary fair value of assets acquired and liabilities assumed as of the acquisition date:

(in millions)	
Purchase price, inclusive of preliminary working capital adjustment [(a)]	$271.8
Total consideration	271.8
Cash	2.6
Accounts receivable	23.4
Inventories	24.7
Prepaid expenses and other current assets	0.8
Rental equipment	0.8
Properties and equipment	23.4
Customer relationships [(b)]	90.0
Trade names [(c)]	60.0
Other intangible assets	3.0
Accounts payable	(18.7)
Accrued liabilities	(5.6)
Deferred tax liabilities	(65.4)
Net assets acquired	$139.0
Goodwill [(d)]	$132.8

(a) $243.0 million of the purchase price was funded through borrowings under the Company’s revolving credit facility, with the remainder being funded with existing cash on hand. The purchase price is subject to a final working capital adjustment that is expected to be finalized before the end of the fourth quarter of 2017.

(b) Represents the preliminary fair value assigned to customer relationships, which are considered to be definite-lived intangible assets, with a preliminary estimated useful life of approximately 10 years.

(c) Represents the preliminary fair value assigned to trade names, which are considered to be indefinite-lived intangible assets.

(d) Goodwill, which is not deductible for tax purposes, has been allocated to the Environmental Solutions Group on the basis that the synergies identified will primarily benefit this segment.

In the period between the June 2, 2017 closing date and June 30, 2017, TBEI generated approximately $18.1 million of net sales and $0.8 million of operating income. The Company has included the operating results of TBEI within the Environmental Solutions Group in its condensed consolidated financial statements since the closing date. Under ASC 805-10, acquisition-related costs (i.e., advisory, legal, valuation and other professional fees) are not included as a component of consideration transferred, but are accounted for as expenses in the periods in which the costs are incurred. Primarily due to the TBEI acquisition, the Company incurred $0.7 million and $1.0 million of acquisition-related costs in the three and six months ended June 30, 2017, which have been recorded in Acquisition and integration-related expenses on the Condensed Consolidated Statement of Operations. The Company expects to incur additional integration expenses during the remainder of 2017.

In the three and six months ended June 30, 2016, the Company incurred $0.4 million and $0.9 million of acquisition and integration-related costs in connection with acquisitions completed in the prior-year.

Unaudited pro forma financial information

The following table presents the unaudited pro forma combined results of operations of the Company and TBEI for the three and six months ended June 30, 2017 and 2016, after giving effect to certain pro forma adjustments including: (i) elimination of the costs recognized related to the step-up in fair value of TBEI's inventory that will not have a continuing impact, (ii) amortization of acquired intangible assets, (iii) the impact of certain fair value adjustments such as depreciation on the acquired property, plant and equipment, (iv) interest expense for historical long-term debt of TBEI that was repaid and interest expense on additional borrowings by the Company to fund the acquisition and (v) elimination of non-recurring acquisition and integration-related expenses. The unaudited pro forma statement of operations of the Company assuming this transaction occurred at January 1, 2016 is as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
(in millions, except per share data)	2017	2016	2017	2016
Net sales	$261.8	$232.1	$491.3	$456.3
Income from continuing operations	14.8	13.0	25.2	26.4
Diluted earnings from continuing operations (per share)	$0.25	$0.21	$0.42	$0.43

The unaudited pro forma financial information is presented for informational purposes only and is not intended to represent or be indicative of the consolidated results of operations of the Company that would have been reported had the acquisition been completed as of the beginning of the periods presented, and should not be taken as being representative of the future consolidated results of operations of the Company.

NOTE 3 – INVENTORIES

The following table summarizes the components of Inventories:

(in millions)	June 30, 2017	December 31, 2016
Finished goods	$ 82.4	$ 77.6
Raw materials	51.8	35.3
Work in process	5.5	7.2
Total inventories	$ 139.7	$ 120.1

NOTE 4 – GOODWILL AND OTHER INTANGIBLE ASSETS

The following table summarizes the carrying amount of goodwill, and the changes in the carrying amount of goodwill in the six months ended June 30, 2017, by segment:

(in millions)	Environmental Solutions	Safety & Security Systems	Total
Balance at January 1, 2017	$ 127.2	$ 109.3	$236.5
Translation adjustments	0.2	2.7	2.9
Acquisitions	132.8	—	132.8
Balance at June 30, 2017	$ 260.2	$ 112.0	$372.2

The following table summarizes the gross carrying amount and accumulated amortization of intangible assets for each major class of intangible assets:

	June 30, 2017			December 31, 2016		
(in millions)	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Gross Carrying Value	Accumulated Amortization	Net Carrying Value
Definite-lived intangible assets:						
Customer relationships [a]	$90.8	$ (0.7)	$ 90.1	$0.8	$ (0.1)	$ 0.7
Other [a]	4.1	(0.6)	3.5	1.1	(0.4)	0.7
Total definite-lived intangible assets	94.9	(1.3)	93.6	1.9	(0.5)	1.4
Indefinite-lived intangible assets:						
Trade names	69.2	—	69.2	8.8	—	8.8
Total indefinite-lived intangible assets	69.2	—	69.2	8.8	—	8.8
Total intangible assets	$164.1	$ (1.3)	$ 162.8	$10.7	$ (0.5)	$ 10.2

(a) Average useful life of customer relationships and other definite-lived intangible assets are estimated to be approximately 10 years and 5 years, respectively. The average useful life across all definite-lived intangible assets is estimated to be approximately 10 years.

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The table above includes preliminary estimates of the fair value and useful lives of certain definite and indefinite-lived intangible assets related to the TBEI acquisition completed during 2017. As further described in Note 2 – Acquisitions, the preliminary measurements of fair value included in the table above are subject to change during the measurement period as valuations are finalized.

Amortization expense for the three months ended June 30, 2017 and 2016 was $0.7 million and $0.1 million, respectively. Amortization expense for the six months ended June 30, 2017 and 2016 was $0.8 million and $0.1 million, respectively.

The Company currently estimates that aggregate amortization expense will be approximately $4.3 million for the remainder of 2017, $8.7 million in 2018, $8.7 million in 2019, $8.1 million in 2020, $7.7 million in 2021, and $56.1 million thereafter. Actual amounts of amortization may differ from estimated amounts due to additional intangible asset acquisitions, changes in foreign currency rates, measurement period adjustments for the TBEI acquisition, impairment of intangible assets and other events.

NOTE 5 – DEBT

The following table summarizes the components of Long-term borrowings and capital lease obligations:

(in millions)	June 30, 2017	December 31, 2016
2016 Credit Agreement:		
Revolving credit facility	$ 288.6	$ 63.2
Capital lease obligations	0.6	0.8
Total long-term borrowings and capital lease obligations, including current portion	289.2	64.0
Less: Current capital lease obligations	0.3	0.5
Total long-term borrowings and capital lease obligations	$ 288.9	$ 63.5

As more fully described within Note 13 – Fair Value Measurements, the Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The fair value of long-term debt is based on interest rates that we believe are currently available to us for issuance of debt with similar terms and remaining maturities (Level 2 input).

The following table summarizes the carrying amounts and estimated fair values of the Company's long-term borrowings:

	June 30, 2017		December 31, 2016	
(in millions)	Notional Amount	Fair Value	Notional Amount	Fair Value
Long-term borrowings [(a)]	$289.2	$289.2	$64.0	$64.0

(a) Long-term borrowings includes current portions of long-term debt and current portions of capital lease obligations of $0.3 million and $0.5 million as of June 30, 2017 and December 31, 2016, respectively.

On January 27, 2016, the Company entered into an Amended and Restated Credit Agreement (the "2016 Credit Agreement"), by and among the Company and certain of its foreign subsidiaries (collectively, the "Borrowers"), Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, JPMorgan Chase Bank, N.A. as syndication agent, KeyBank National Association, as documentation agent, Wells Fargo Securities, LLC and J.P. Morgan Securities LLC, as joint lead arrangers and joint bookrunners, and the other lenders and parties signatory thereto.

The 2016 Credit Agreement is a $325.0 million revolving credit facility, maturing on January 27, 2021, that provides for borrowings in the form of loans or letters of credit up to the aggregate availability under the facility, with a sub-limit of $50.0 million for letters of credit. In addition, the 2016 Credit Agreement includes an accordion feature, whereby the Company may cause the commitments to increase by up to an additional $75.0 million, subject to the approval of the applicable lenders providing such additional financing.

On June 2, 2017, the Company executed an amendment to the 2016 Credit Agreement (the “Amended 2016 Credit Agreement”), which included provisions to exercise this accordion feature, thereby increasing the borrowing capacity under the Amended 2016 Credit Agreement to $400.0 million.

The Amended 2016 Credit Agreement allows for the Borrowers to borrow in denominations of U.S. Dollars, Canadian Dollars (up to a maximum of C$100.0 million) or Euros (up to a maximum of €20.0 million). Borrowings under the Amended 2016 Credit Agreement may be used for working capital and general corporate purposes, including permitted acquisitions.

The Company's domestic subsidiaries provide guarantees for all obligations of the Borrowers under the Amended 2016 Credit Agreement, which is secured by a first priority security interest in all now or hereafter acquired domestic property and assets and the stock or other equity interests in each of the domestic subsidiaries and 65% of the outstanding voting capital stock of certain first-tier foreign subsidiaries, subject to certain exclusions.

Borrowings under the Amended 2016 Credit Agreement bear interest, at the Company's option, at a base rate or a LIBOR rate, plus, in each case, an applicable margin. The applicable margin ranges from 0.00% to 1.25% for base rate borrowings and 1.00% to 2.25% for LIBOR borrowings. The Company must also pay a commitment fee to the lenders ranging between 0.15% to 0.30% per annum on the unused portion of the $400.0 million revolving credit facility along with other standard fees. Letter of credit fees are payable on outstanding letters of credit in an amount equal to the applicable LIBOR margin plus other customary fees.

The Company is subject to certain leverage ratio and interest coverage ratio financial covenants under the Amended 2016 Credit Agreement that are to be measured at each fiscal quarter-end. The Company was in compliance with all such covenants as of June 30, 2017. The Amended 2016 Credit Agreement also includes a "covenant holiday" period, which allows for the temporary increase of the minimum leverage ratio following the completion of a permitted acquisition, or a series of permitted acquisitions, when the total consideration exceeds a specified threshold. In addition, the Amended 2016 Credit Agreement includes customary negative covenants, subject to certain exceptions, restricting or limiting the Company's and its subsidiaries' ability to, among other things: (i) make non-ordinary course dispositions of assets, (ii) make certain fundamental business changes, such as merge, consolidate or enter into any similar combination, (iii) make restricted payments, including dividends and stock repurchases, (iv) incur indebtedness, (v) make certain loans and investments, (vi) create liens, (vii) transact with affiliates, (viii) enter into sale/leaseback transactions, (ix) make negative pledges and (x) modify subordinated debt documents.

Under the Amended 2016 Credit Agreement, restricted payments, including dividends and stock repurchases, shall be permitted if (i) the Company's leverage ratio is less than or equal to 2.50, (ii) the Company is in compliance with all other financial covenants and (iii) there are no existing defaults under the Amended 2016 Credit Agreement. If its leverage ratio is more than 2.50, the Company is still permitted to fund (i) up to $30.0 million of dividend payments, (ii) stock repurchases sufficient to offset dilution created by the issuance of equity as compensation to its officer, directors, employees and consultants and (iii) an incremental $30.0 million of other cash payments.

The Amended 2016 Credit Agreement contains customary events of default. If an event of default occurs and is continuing, the Borrowers may be required immediately to repay all amounts outstanding under the Amended 2016 Credit Agreement and the commitments from the lenders may be terminated.

In connection with its debt refinancing in the six months ended June 30, 2016, the Company repaid the remaining $43.4 million of principal outstanding under the Company's March 13, 2013 Credit Agreement (the "2013 Credit Agreement") and wrote off approximately $0.3 million of unamortized deferred financing fees associated with the 2013 Credit Agreement. The Company incurred $1.1 million of debt issuance costs in connection with the execution of the 2016 Credit Agreement. Such fees have been deferred and are being amortized over the five-year term.

As of June 30, 2017, there was $288.6 million of cash drawn and $18.0 million of undrawn letters of credit under the Amended 2016 Credit Agreement, with $93.4 million of net availability for borrowings. As of December 31, 2016, there was $63.2 million cash drawn and $18.0 million of undrawn letters of credit under the 2016 Credit Agreement, with $243.8 million of net availability for borrowings.

As of June 30, 2017 and December 31, 2016, there were no borrowings against the Company's non-U.S. lines of credit which provide for borrowings of up to $0.2 million.

For the six months ended June 30, 2017, gross borrowings under the Amended 2016 Credit Agreement were $243.0 million, while there were $20.0 million of gross payments. For the six months ended June 30, 2016, gross borrowings and gross payments under the 2016 Credit Agreement were $69.8 million and $5.0 million, respectively.

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Interest Rate Swap
On June 2, 2017, the Company entered into an interest rate swap (the "Swap") with a notional amount of $150.0 million, as a means of fixing the floating interest rate component on $150.0 million of its variable-rate debt. The Swap is designated as a cash flow hedge, with a termination date of June 2, 2020. As a result of the application of hedge accounting treatment, all unrealized gains and losses related to the derivative instrument are recorded in Accumulated other comprehensive loss and are reclassified into operations in the same period in which the hedged transaction affects earnings. Hedge effectiveness is tested quarterly. We do not use derivative instruments for trading or speculative purposes.
As more fully described within Note 13 – Fair Value Measurements, the Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The fair value of the Swap is derived from a discounted cash flow analysis based on the terms of the contract and the interest rate curve (Level 2 inputs) and measured on a recurring basis in our Consolidated Balance Sheet. At June 30, 2017, the fair value of the Swap, included in Deferred charges and other assets on the Condensed Consolidated Balance Sheets, was $0.4 million and no ineffectiveness was recorded. The associated unrealized pre-tax gain of $0.4 million was recorded in Accumulated other comprehensive loss during the three and six months ended June 30, 2017.
NOTE 6 – INCOME TAXES
The Company recognized income tax expense of $6.1 million and $4.8 million for the three months ended June 30, 2017 and 2016, respectively. The increase in tax expense in the current-year quarter is largely due to higher pre-tax income levels. The effective tax rate for the three months ended June 30, 2017 was 34.7%, compared to 33.8% in the prior-year quarter.
For the six months ended June 30, 2017 and 2016, the Company recognized income tax expense of $9.9 million and $10.5 million, respectively. The decrease in tax expense in the first half of 2017 is largely due to lower pre-tax income levels. The effective tax rate was 34.6% and 34.7% for the six months ended June 30, 2017 and 2016, respectively.
NOTE 7 – PENSIONS
The following table summarizes the components of net postretirement pension expense:

	U.S. Benefit Plan				Non-U.S. Benefit Plan			
	Three Months Ended June 30,		Six Months Ended June 30,		Three Months Ended June 30,		Six Months Ended June 30,	
(in millions)	2017	2016	2017	2016	2017	2016	2017	2016
Service cost	$—	$—	$—	$—	$0.1	$0.1	$0.1	$0.1
Interest cost	1.9	1.9	3.8	3.9	0.4	0.5	0.7	1.0
Amortization of actuarial loss	0.6	1.4	1.2	2.8	0.1	0.1	0.3	0.3
Expected return on plan assets	(2.4)	(2.6)	(4.8)	(5.2)	(0.5)	(0.7)	(1.0)	(1.3)
Net postretirement pension expense	$0.1	$0.7	$0.2	$1.5	$0.1	$—	$0.1	$0.1

In the six months ended June 30, 2017 and 2016, the Company contributed $2.7 million and $3.1 million to its U.S. defined benefit plan, respectively, and $0.4 million and $0.7 million to its non-U.S. defined benefit plan, respectively. For the year ended December 31, 2017, the Company expects to contribute up to $5.0 million to the U.S. benefit plan and up to $0.9 million to the non-U.S. benefit plan.
NOTE 8 – COMMITMENTS AND CONTINGENCIES
Financial Commitments
The Company provides indemnifications and other guarantees in the ordinary course of business, the terms of which range in duration and often are not explicitly defined. Specifically, the Company is occasionally required to provide letters of credit and bid and performance bonds to various customers, principally to act as security for retention levels

related to casualty insurance policies and to guarantee the performance of subsidiaries that engage in export and domestic transactions. At June 30, 2017, the Company had outstanding performance and financial standby letters of credit, as well as outstanding bid and performance bonds, aggregating $21.7 million. If any such letters of credit or bonds are called, the Company would be obligated to reimburse the issuer of the letter of credit or bond. The Company believes the likelihood of any currently outstanding letter of credit or bond being called is remote.

Following the June 3, 2016 acquisition of substantially all of the assets and operations of Joe Johnson Equipment, Inc. and Joe Johnson Equipment (USA), Inc. (collectively, "JJE"), the Company has transactions involving the sale of equipment to certain of its customers which include (i) guarantees to repurchase the equipment for a fixed price at a future date and (ii) guarantees to repurchase the equipment from the third-party lender in the event of default by the customer. As of June 30, 2017, the single year and maximum potential cash payments the Company could be required to make to repurchase equipment under these agreements were $3.5 million and $4.1 million, respectively. The Company's risk under these repurchase arrangements would be partially mitigated by the value of the products repurchased as part of the transaction. In addition, the former owners of JJE have agreed to reimburse the Company for certain losses incurred resulting from the requirement to repurchase equipment that was sold prior to the acquisition date. Any such reimbursement would be withheld from the C$8.0 million deferred payment to be made to the former owners of JJE on the third anniversary of the acquisition date. The Company has recorded an immaterial accrual for potential losses related to the repurchase exposures, which represents the expected losses that could result from obligations to repurchase products, after giving effect to proceeds anticipated to be received from the resale of those products to alternative customers, as well as to the reimbursement of any losses incurred. The Company has recorded its estimated net liability associated with losses from these guarantee and repurchase obligations on its Consolidated Balance Sheet based on historical experience and current facts and circumstances. Historical cash requirements and losses associated with these obligations have not been significant, but could increase if customer defaults exceed current expectations.

Product Warranties

The Company issues product performance warranties to customers with the sale of its products. The specific terms and conditions of these warranties vary depending upon the product sold and country in which the Company does business, with warranty periods generally ranging from one to five years. The Company estimates the costs that may be incurred under its basic limited warranty and records a liability in the amount of such costs at the time the sale of the related product is recognized. Factors that affect the Company's warranty liability include (i) the number of units under warranty, (ii) historical and anticipated rates of warranty claims and (iii) costs per claim. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary.

The following table summarizes the changes in the Company's warranty liabilities:

(in millions)	2017	2016
Balance at January 1	$6.4	$7.4
Provisions to expense	2.3	2.8
Acquisitions	1.5	—
Payments	(2.8)	(3.0)
Balance at June 30	$7.4	$7.2

Environmental Liabilities

In May 2012, the Company sold a facility in Pearland, Texas. The facility was previously used by the Company's discontinued Pauluhn business, which manufactured marine, offshore and industrial lighting products. It is probable that the site will require remediation and as such, as of June 30, 2017 and December 31, 2016, environmental remediation reserves of $0.5 million and $0.6 million, respectively, have been included in liabilities of discontinued operations on the Condensed Consolidated Balance Sheets. The recorded reserves are based on an undiscounted estimate of the range of costs to remediate the site, depending upon the remediation approach and other factors. The Company's estimate may change in the near-term as more information becomes available; however, the costs are not expected to have a material adverse effect on the Company's results of operations, financial position or cash flow.

Legal Proceedings

The Company is subject to various claims, including pending and possible legal actions for product liability and other damages, and other matters arising in the ordinary course of the Company's business. On a quarterly basis, the Company reviews uninsured material legal claims against the Company and accrues for the costs of such claims as appropriate in the exercise of management's best judgment and experience. However, due to a lack of factual information available to the Company about a claim, or the procedural stage of a claim, it may not be possible for the Company to reasonably assess either the probability of a favorable or unfavorable outcome of the claim or to reasonably estimate the amount of loss should there be an unfavorable outcome. Therefore, for many claims, the Company cannot reasonably estimate a range of loss.

The Company believes, based on current knowledge and after consultation with counsel, that the outcome of such claims and actions will not have a material adverse effect on the Company's results of operations or financial condition. However, in the event of unexpected future developments, it is possible that the ultimate resolution of such matters, if unfavorable, could have a material adverse effect on the Company's results of operations, financial condition or cash flow.

Hearing Loss Litigation

The Company has been sued for monetary damages by firefighters who claim that exposure to the Company's sirens has impaired their hearing and that the sirens are therefore defective. There were 33 cases filed during the period of 1999 through 2004, involving a total of 2,443 plaintiffs, in the Circuit Court of Cook County, Illinois. These cases involved more than 1,800 firefighter plaintiffs from locations outside of Chicago. In 2009, six additional cases were filed in Cook County, involving 299 Pennsylvania firefighter plaintiffs. During 2013, another case was filed in Cook County involving 74 Pennsylvania firefighter plaintiffs.

The trial of the first 27 of these plaintiffs' claims occurred in 2008, whereby a Cook County jury returned a unanimous verdict in favor of the Company.

An additional 40 Chicago firefighter plaintiffs were selected for trial in 2009. Plaintiffs' counsel later moved to reduce the number of plaintiffs from 40 to nine. The trial for these nine plaintiffs concluded with a verdict against the Company and for the plaintiffs in varying amounts totaling $0.4 million. The Company appealed this verdict. On September 13, 2012, the Illinois Appellate Court rejected this appeal. The Company thereafter filed a petition for rehearing with the Illinois Appellate Court, which was denied on February 7, 2013. The Company sought further review by filing a petition for leave to appeal with the Illinois Supreme Court on March 14, 2013. On May 29, 2013, the Illinois Supreme Court issued a summary order declining to accept review of this case. On July 1, 2013, the Company satisfied the judgments entered for these plaintiffs, which has resulted in final dismissal of these cases.

A third consolidated trial involving eight Chicago firefighter plaintiffs occurred during November 2011. The jury returned a unanimous verdict in favor of the Company at the conclusion of this trial.

Following this trial, on March 12, 2012 the trial court entered an order certifying a class of the remaining Chicago Fire Department firefighter plaintiffs for trial on the sole issue of whether the Company's sirens were defective and unreasonably dangerous. The Company petitioned the Illinois Appellate Court for interlocutory appeal of this ruling. On May 17, 2012, the Illinois Appellate Court accepted the Company's petition. On June 8, 2012, plaintiffs moved to dismiss the appeal, agreeing with the Company that the trial court had erred in certifying a class action trial in this matter. Pursuant to plaintiffs' motion, the Illinois Appellate Court reversed the trial court's certification order.

Thereafter, the trial court scheduled a fourth consolidated trial involving three firefighter plaintiffs, which began in December 2012. Prior to the start of this trial, the claims of two of the three firefighter plaintiffs were dismissed. On December 17, 2012, the jury entered a complete defense verdict for the Company.

Following this defense verdict, plaintiffs again moved to certify a class of Chicago Fire Department plaintiffs for trial on the sole issue of whether the Company's sirens were defective and unreasonably dangerous. Over the Company's objection, the trial court granted plaintiffs' motion for class certification on March 11, 2013 and scheduled a class action trial to begin on June 10, 2013. The Company filed a petition for review with the Illinois Appellate Court on March 29, 2013 seeking reversal of the class certification order.

On June 25, 2014, a unanimous three-judge panel of the First District Illinois Appellate Court issued its opinion reversing the class certification order of the trial court. Specifically, the Appellate Court determined that the trial court's ruling failed to satisfy the class-action requirements that the common issues of the firefighters' claims predominate over the individual issues and that there is an adequate representative for the class. During a status hearing on October 8, 2014, plaintiffs represented to the Court that they would again seek to certify a class of firefighters on the issue of whether the Company's sirens were defective and unreasonably dangerous. On January 12, 2015, plaintiffs filed motions to amend their complaints to add class action allegations with respect to Chicago firefighter plaintiffs as well as the approximately 1,800 firefighter plaintiffs from locations outside of Chicago. On March 11, 2015, the trial court granted plaintiff's motions to amend their complaints. Plaintiffs have indicated that they will now file motions to certify classes in these cases. On April 24, 2015, the cases were transferred to Cook County chancery court, which will decide all class certification issues. The Company intends to continue its objections to any attempt at certification. The Company has also filed motions to dismiss cases involving firefighters who worked for fire departments located outside of the state of Illinois based on improper venue. On February 24, 2017, the Circuit Court of Cook County entered orders dismissing the cases of 1,770 such firefighter plaintiffs from the jurisdiction of the state of Illinois. These cases may be refiled in jurisdictions where these firefighters are located. The Company also has filed a venue motion seeking to transfer to DuPage County cases involving 10 plaintiffs who reside and work in Illinois but outside of
Cook County. The Court granted this motion on June 28, 2017.

The Company has also been sued on this issue outside of the Cook County, Illinois venue. Many of these cases have involved lawsuits filed by a single attorney in the Court of Common Pleas, Philadelphia County, Pennsylvania. During 2007 and through 2009, this attorney filed a total of 71 lawsuits involving 71 plaintiffs in this jurisdiction. Three of these cases were dismissed pursuant to pretrial motions filed by the Company. Another case was voluntarily dismissed. Prior to trial in four cases, the Company paid nominal sums to obtain dismissals.

Three trials occurred in Philadelphia involving these cases filed in 2007 through 2009. The first trial involving one of these plaintiffs occurred in 2010, when the jury returned a verdict for the plaintiff. In particular, the jury found that the Company's siren was not defectively designed, but that the Company negligently constructed the siren. The jury awarded damages in the amount of $0.1 million, which was subsequently reduced to $0.08 million. The Company appealed this verdict. Another trial, involving nine Philadelphia firefighter plaintiffs, also occurred in 2010 when the jury returned a defense verdict for the Company as to all claims and all plaintiffs involved in that trial. The third trial, also involving nine Philadelphia firefighter plaintiffs, was completed during 2010 when the jury returned a defense verdict for the Company as to all claims and all plaintiffs involved in that trial.

Following defense verdicts in the last two Philadelphia trials, the Company negotiated settlements with respect to all remaining filed cases in Philadelphia at that time, as well as other firefighter claimants represented by the attorney who filed the Philadelphia cases. On January 4, 2011, the Company entered into a Global Settlement Agreement (the "Settlement Agreement") with the law firm of the attorney representing the Philadelphia claimants, on behalf of 1,125 claimants the firm represented (the "Claimants") and who had asserted product claims against the Company (the "Claims"). Three hundred eight of the Claimants had lawsuits pending against the Company in Cook County, Illinois. The Settlement Agreement, as amended, provided that the Company pay a total amount of $3.8 million (the "Settlement Payment") to settle the Claims (including the costs, fees and other expenses of the law firm in connection with its representation of the Claimants), subject to certain terms, conditions and procedures set forth in the Settlement Agreement. In order for the Company to be required to make the Settlement Payment: (i) each Claimant who agreed to settle his or her claims had to sign a release acceptable to the Company (a "Release"), (ii) each Claimant who agreed to the settlement and who was a plaintiff in a lawsuit, had to dismiss his or her lawsuit with prejudice, (iii) by April 29, 2011, at least 93% of the Claimants identified in the Settlement Agreement must have agreed to settle their claims and provide a signed Release to the Company and (iv) the law firm had to withdraw from representing any Claimants who did not agree to the settlement, including those who filed lawsuits. If the conditions to the settlement were met, but less than 100% of the Claimants agreed to settle their Claims and sign a Release, the Settlement Payment would be reduced by the percentage of Claimants who did not agree to the settlement.

On April 22, 2011, the Company confirmed that the terms and conditions of the Settlement Agreement had been met and made a payment of $3.6 million to conclude the settlement. The amount was based upon the Company's receipt of 1,069 signed releases provided by Claimants, which was 95.02% of all Claimants identified in the Settlement Agreement.

The Company generally denies the allegations made in the claims and lawsuits by the Claimants and denies that its products caused any injuries to the Claimants. Nonetheless, the Company entered into the Settlement Agreement for the purpose of minimizing its expenses, including legal fees, and avoiding the inconvenience, uncertainty and distraction of the claims and lawsuits.

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During April through October 2012, 20 new cases were filed in the Court of Common Pleas, Philadelphia County, Pennsylvania. These cases were filed on behalf of 20 Philadelphia firefighters and involve various defendants in addition to the Company. Five of these cases were subsequently dismissed. The first trial involving these 2012 Philadelphia cases occurred during December 2014 and involved three firefighter plaintiffs. The jury returned a verdict in favor of the Company. Following this trial, all of the parties agreed to settle cases involving seven firefighter plaintiffs set for trial during January 2015 for nominal amounts per plaintiff. In January 2015, plaintiffs' attorneys filed two new complaints in the Court of Common Pleas, Philadelphia, Pennsylvania on behalf of approximately 70 additional firefighter plaintiffs. The vast majority of the firefighters identified in these complaints are located outside of Pennsylvania. One of the complaints in these cases, which involves 11 firefighter plaintiffs from the District of Columbia, was removed to federal court in the Eastern District of Pennsylvania. Plaintiffs voluntarily dismissed all claims in this case on May 31, 2016. The Company thereafter moved to recover various fees and costs in this case, asserting that plaintiffs' counsel failed to properly investigate these claims prior to filing suit. The Court granted this motion on April 25, 2017, awarding $0.1 million to the Company, Plaintiffs' counsel has appealed this Order. With respect to claims of other out-of-state firefighters involved in these two cases, the Company moved to dismiss these claims as improperly filed in Pennsylvania. The Court granted this motion and dismissed these claims on November 5, 2015. During August through December 2015, another nine new cases were filed in the Court of Common Pleas, Philadelphia County, Pennsylvania. These cases involve a total of 193 firefighters, most of whom are located outside of Pennsylvania. The Company again moved to dismiss all claims filed by out-of-state firefighters in these cases as improperly filed in Pennsylvania. On May 24, 2016, the Court granted this motion and dismissed these claims. Plaintiffs have filed a notice of appeal regarding this decision. On May 13, 2016, four new cases were filed in Philadelphia state court, involving a total of 55 Philadelphia firefighters who live in Pennsylvania. During August 2016, the Company settled a case involving four Philadelphia firefighters that had been set for trial in Philadelphia state court during September 2016. During January 2017, plaintiffs filed a motion to consolidate and bifurcate, similar to a motion filed in the Pittsburgh hearing loss cases, as described below. The Company has filed an opposition to this motion. Currently, there is one case involving one plaintiff scheduled for trial in Philadelphia that may begin in early September.

During April through July 2013, additional cases were filed in Allegheny County, Pennsylvania. These cases involve 247 plaintiff firefighters from Pittsburgh and various defendants, including the Company. During May 2016, two additional cases were filed against the Company in Allegheny County involving 19 Pittsburgh firefighters. After the Company filed pretrial motions, the Court dismissed claims of 55 Pittsburgh firefighter plaintiffs. The Court scheduled the first trials of these Pittsburgh firefighters to occur in May, September and November 2016. Each trial will involve eight firefighters. Prior to the first scheduled trial in Pittsburgh, the Court granted the Company's motion for summary judgment and dismissed all claims asserted by plaintiff firefighters involved in this trial. Plaintiffs have appealed this dismissal. The next trial involving six Pittsburgh firefighters started on November 7, 2016. Shortly after this trial began, plaintiffs' counsel moved for a mistrial because a key witness suddenly became unavailable. The Court granted this motion and rescheduled this trial for March 6, 2017. During January 2017, plaintiffs also moved to consolidate and bifurcate trials involving Pittsburgh firefighters. In particular, plaintiffs seek one trial involving liability issues which will apply to all Pittsburgh firefighters who have filed suit against the Company. The Company filed an opposition to this motion. On April 18, 2017, the trial court granted plaintiffs' motion to bifurcate the next Pittsburgh trial. Pursuant to a motion for clarification filed by the Company, the Court ruled that the bifurcation order will only apply to six plaintiffs who are part of the next trial group in Pittsburgh. The Company thereafter sought an interlocutory appeal of the Court's bifurcation order. The appellate court declined to accept the appeal at this time. A bifurcated trial involving six plaintiffs is scheduled to begin on September 27, 2017. During March 2014, an action also was brought in the Court of Common Pleas of Erie County, Pennsylvania on behalf of 61 firefighters. This case likewise involves various defendants in addition to the Company. After the Company filed pretrial motions, 33 Erie County firefighter plaintiffs voluntarily dismissed their claims.

On September 17, 2014, 20 lawsuits, involving a total of 193 Buffalo Fire Department firefighters, were filed in the Supreme Court of the State of New York, Erie County. All of the cases filed in Erie County, New York have been removed to federal court in the Western District of New York. Plaintiffs have filed a motion to consolidate and bifurcate these cases, similar to the motion filed in the Pittsburgh hearing loss cases, as described above. The Company has filed an opposition to the motion. During February 2015, a lawsuit involving one New York City firefighter plaintiff was filed in the Supreme Court of the State of New York, New York County. The plaintiff named the Company as well as several other parties as defendants. That case has been transferred to federal court in the Northern District of New York. Plaintiffs agreed to voluntarily dismiss this case during May 2016. The Company also is aware that a lawsuit involving eight New York City firefighters was filed in New York County, New York, on April 24, 2015. The Company has not yet been served in that case. During November 2015 through January 2016, 28 new cases involving a total of 227 firefighters were filed in various counties in the New York City area. During December 2016 through June 2017, three additional cases, involving a total of 13 New York firefighters, were filed in New York County state court. A total of 453 firefighters are currently involved in cases filed in the state of New York.

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During November 2015, the Company was served with a complaint filed in Union County, New Jersey state court, involving 34 New Jersey firefighters. This case has been transferred to federal court in the District of New Jersey. During the period from January through May 2016, eight additional cases were filed in various New Jersey state courts. Most of the firefighters in these cases reside in New Jersey and work or worked at New Jersey fire departments. During December 2016, a case involving one New Jersey firefighter was filed in the United States District Court of New Jersey. A total of 105 firefighters are currently involved in cases filed in New Jersey. On May 2, 2017, plaintiffs filed a motion to consolidate and bifurcate in the pending federal court case in New Jersey. This motion is similar to bifurcation motions filed by plaintiffs in Pittsburgh, Buffalo and Philadelphia. The Company has filed an opposition to this motion.

During May through October 2016, nine cases were filed in Suffolk County, Massachusetts state court, naming the Company as a defendant. These cases involve 194 firefighters who lived and worked in the Boston area.

From 2007 through 2009, firefighters also brought hearing loss claims against the Company in New Jersey, Missouri, Maryland and Kings County, New York. All of those cases, however, were dismissed prior to trial, including four cases in the Supreme Court of Kings County, New York that were dismissed upon the Company's motion in 2008. On appeal, the New York appellate court affirmed the trial court's dismissal of these cases. Plaintiffs' attorneys have threatened to file additional lawsuits. The Company intends to vigorously defend all of these lawsuits, if filed.

The Company's ongoing negotiations with its insurer, CNA, over insurance coverage on these claims have resulted in reimbursements of a portion of the Company's defense costs. These reimbursements are recorded as a reduction of corporate operating expenses. For the six months ended June 30, 2017 and 2016, the Company recorded $0.3 million and $0.1 million of reimbursements from CNA related to legal costs, respectively.

Latvian Commercial Dispute

On June 12, 2014, a Latvian trial court issued a summary ruling against the Company's former Bronto subsidiary in a lawsuit relating to a commercial dispute. The dispute involves a transaction for the 2008 sale of three Bronto units that were purchased by a financing company for lease to a Latvian fire department. The lessor and the Latvian fire department sought to rescind the contract after delivery, despite the fact that an independent third party, selected by the lessor, had certified that the vehicles satisfied the terms of the contract. The adverse judgment required Bronto to refund the purchase price and pay interest and attorneys' fees. The trial court denied the lessor's claim against Bronto for alleged damages relating to lost lease income.

Believing that the claims against Bronto were invalid and that Bronto fully satisfied the terms of the subject contract, on July 10, 2014, the Company filed an appeal with the Civil Chamber of the Supreme Court of Latvia seeking a reversal of the trial court's ruling.

At December 31, 2015, the Company had not accrued any liability within its consolidated financial statements for this lawsuit. In evaluating whether a charge to record a reserve was previously necessary, the Company analyzed all of the available information, including the legal reasoning applied by the judge of the trial court in reaching its decision. Based on the Company's analysis, and consultations with external counsel, the Company assessed the likelihood of a successful appeal to be more likely than not and therefore did not believe that a probable loss had been incurred.

In connection with the sale of Bronto to Morita Holdings Corporation ("Morita"), completed in January 2016, the Company and Morita agreed that the Company would remain in control of negotiations and proceedings relating to the appeal and fund the legal costs associated therewith. The Company also agreed to compensate Morita for 50% of any liability resulting from a final and non-appealable decision of a court of competent jurisdiction, net of any actual income tax benefit to Bronto as a result of the judgment, and less 50% of legal fees incurred by the Company, relating to the defense of this matter, subsequent to the January 29, 2016 closing date of the sale.

In April 2016, the Civil Chamber of the Supreme Court of Latvia heard the Company's appeal and upheld the trial court's ruling against Bronto. As the Company's appeal of the trial judgment was unsuccessful, a charge of $1.5 million was recorded as a component of (Loss) gain from discontinued operations and disposal, net of tax in the six months ended June 30, 2016, to reflect the Company's share of the liability. The Company decided not to further appeal the

Supreme Court’s ruling and, during the six months ended June 30, 2017, settled the liability due to Morita.

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NOTE 9 – EARNINGS PER SHARE
The Company computes earnings per share ("EPS") in accordance with ASC 260, Earnings per Share, which requires that non-vested restricted stock containing non-forfeitable dividend rights should be treated as participating securities pursuant to the two-class method. Under the two-class method, net income is reduced by the amount of dividends declared in the period for common stock and participating securities. The remaining undistributed earnings are then allocated to common stock and participating securities as if all of the net income for the period had been distributed. The amounts of distributed and undistributed earnings allocated to participating securities for the three and six months ended June 30, 2017 and 2016 were insignificant and did not materially impact the calculation of basic or diluted EPS.
Basic EPS is computed by dividing income or loss available to common stockholders by the weighted average number of shares of common stock and non-vested restricted stock awards outstanding for the period.
Diluted EPS is computed using the weighted average number of shares of common stock and non-vested restricted stock awards outstanding for the year plus the effect of dilutive potential common shares outstanding during the period. The dilutive effect of common stock equivalents is determined using the more dilutive of the two-class method or alternative methods. The Company uses the treasury stock method to determine the potentially dilutive impact of our employee stock options and restricted stock units, and the contingently issuable method for our performance-based restricted stock unit awards.
For the three and six months ended June 30, 2017, options to purchase 0.7 million and 1.2 million shares, respectively, of the Company's common stock had an anti-dilutive effect on EPS, and accordingly, are excluded from the calculation of diluted EPS. For the three and six months ended June 30, 2016, options to purchase 1.3 million shares of the Company's common stock had an anti-dilutive effect on EPS, and accordingly, are excluded from the calculation of diluted EPS.
The following table reconciles Net income to basic and diluted EPS:

	Three Months Ended June 30,		Six Months Ended June 30,	
(in millions, except per share data)	2017	2016	2017	2016
Income from continuing operations	$11.5	$9.4	$18.7	$19.8
(Loss) gain from discontinued operations and disposal, net of tax	(0.1)	(0.3)	—	2.9
Net income	$11.4	$9.1	$18.7	$22.7
Weighted average shares outstanding – Basic	59.7	60.1	59.7	61.1
Dilutive effect of common stock equivalents	0.6	0.8	0.6	0.8
Weighted average shares outstanding – Diluted	60.3	60.9	60.3	61.9
Basic earnings per share:				
Earnings from continuing operations	$0.19	$0.16	$0.31	$0.32
(Loss) earnings from discontinued operations and disposal, net of tax	—	(0.01)	—	0.05
Net earnings per share	$0.19	$0.15	$0.31	$0.37
Diluted earnings per share:				
Earnings from continuing operations	$0.19	$0.15	$0.31	$0.32
(Loss) earnings from discontinued operations and disposal, net of tax	—	—	—	0.05
Net earnings per share	$0.19	$0.15	$0.31	$0.37

NOTE 10 – STOCKHOLDERS' EQUITY
Dividends
On February 17, 2017, the Company's Board of Directors (the "Board") declared a quarterly cash dividend of $0.07 per common share. The dividend totaled $4.2 million and was distributed on March 31, 2017 to holders of record at the close of business on March 10, 2017.

On April 21, 2017, the Board declared a quarterly cash dividend of $0.07 per common share. The dividend totaled $4.2 million and was distributed on June 2, 2017 to holders of record at the close of business on May 12, 2017. During the three and six months ended June 30, 2016, dividends of $4.3 million and $8.6 million, respectively, were paid to stockholders.

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On July 25, 2017, the Board declared a quarterly cash dividend of $0.07 per common share payable on September 6, 2017 to holders of record at the close of business on August 15, 2017.

Stock Repurchase Program

In November 2014, the Board authorized a stock repurchase program (the "November 2014 program") of up to $75.0 million of the Company's common stock. The November 2014 program is intended primarily to facilitate opportunistic purchases of Company stock as a means to provide cash returns to stockholders, enhance stockholder returns and manage the Company's capital structure.

During the three and six months ended June 30, 2016, the Company repurchased 1,288,751 and 2,580,725 shares for a total of $16.8 million and $33.1 million, respectively, under the November 2014 program. No shares were repurchased in the three and six months ended June 30, 2017.

Under its stock repurchase programs, the Company is authorized to repurchase, from time to time, shares of its outstanding common stock in the open market or through privately negotiated transactions. Stock repurchases by the Company are subject to market conditions and other factors and may be commenced, suspended or discontinued at any time.

Accumulated Other Comprehensive Loss

The following tables summarize the changes in each component of Accumulated other comprehensive loss, net of tax:

(in millions) [a]	Actuarial Losses	Foreign Currency Translation	Unrealized Gain on Derivatives	Total
Balance at April 1, 2017	$ (78.8)	$ (11.8)	$ —	$ (90.6)
Other comprehensive (loss) income before reclassifications	(0.6)	5.0	0.2	4.6
Amounts reclassified from accumulated other comprehensive loss	0.5	—	—	0.5
Net current-period other comprehensive (loss) income	(0.1)	5.0	0.2	5.1
Balance at June 30, 2017	$ (78.9)	$ (6.8)	$ 0.2	$ (85.5)

(in millions) [a]	Actuarial Losses [b]	Foreign Currency Translation [c]	Unrealized Gain on Derivatives	Total
Balance at April 1, 2016	$ (73.8)	$ (4.2)	$ —	$ (78.0)
Other comprehensive income (loss) before reclassifications	1.0	(2.8)	—	(1.8)
Amounts reclassified from accumulated other comprehensive loss	1.0	(0.3)	—	0.7
Net current-period other comprehensive income (loss)	2.0	(3.1)	—	(1.1)
Balance at June 30, 2016	$ (71.8)	$ (7.3)	$ —	$ (79.1)

(in millions) [a]	Actuarial Losses	Foreign Currency Translation	Unrealized Gain on Derivatives	Total
Balance at January 1, 2017	$ (79.0)	$ (13.0)	$ —	$ (92.0)
Other comprehensive (loss) income before reclassifications	(0.9)	6.2	0.2	5.5
Amounts reclassified from accumulated other comprehensive loss	1.0	—	—	1.0
Net current-period other comprehensive income	0.1	6.2	0.2	6.5
Balance at June 30, 2017	$ (78.9)	$ (6.8)	$ 0.2	$ (85.5)

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(in millions) [a]	Actuarial Losses [b]	Foreign Currency Translation [c]	Unrealized Gain on Derivatives	Total
Balance at January 1, 2016	$ (75.6)	$ (13.3)	$ 0.1	$(88.8)
Other comprehensive income (loss) before reclassifications	1.4	(1.4)	—	—
Amounts reclassified from accumulated other comprehensive loss	2.4	7.4	(0.1)	9.7
Net current-period other comprehensive income (loss)	3.8	6.0	(0.1)	9.7
Balance at June 30, 2016	$ (71.8)	$ (7.3)	$ —	$(79.1)

(a) Amounts in parentheses indicate debits.

(b) In connection with the sale of Bronto, the Company recognized an actuarial loss of $0.4 million attributable to Bronto's defined benefit plan and included it in the calculation of the associated gain on disposal in the six months ended June 30, 2016.

(c) The Company recognized a foreign currency gain of $0.3 million and a foreign currency translation loss of $7.4 million in the three and six months ended June 30, 2016, respectively, in connection with the sale of Bronto. The recognition of the translation gain (loss), which represented the cumulative translation effects attributable to the Fire Rescue Group, was included in Gain (loss) from discontinued operations and disposal for the applicable period.

The following table summarizes the amounts reclassified from Accumulated other comprehensive loss, net of tax, in the three months ended June 30, 2017 and 2016 and the affected line item in the Condensed Consolidated Statements of Operations:

Details about Accumulated Other Comprehensive Loss Components	Amount Reclassified from Accumulated Other Comprehensive Loss		Affected Line Item in Condensed Consolidated Statements of Operations [a]
	2017	2016	
	(in millions) [b]		
Amortization of actuarial losses of defined benefit pension plans	$ (0.7)	$ (1.5)	(c)
Total before tax	(0.7)	(1.5)	
Income tax benefit	0.2	0.5	Income tax expense
Total reclassifications for the period, net of tax	$ (0.5)	$ (1.0)	

(a) Continuing operations only.

(b) Amounts in parentheses indicate debits to profit/loss.

(c) The actuarial loss components of Accumulated other comprehensive loss are included in the computation of net periodic pension cost for the three months ended June 30, 2017 and 2016, as disclosed in Note 7 – Pensions.

The following table summarizes the amounts reclassified from Accumulated other comprehensive loss, net of tax, in the six months ended June 30, 2017 and 2016 and the affected line item in the Condensed Consolidated Statements of Operations:

Details about Accumulated Other Comprehensive Loss Components	Amount Reclassified from Accumulated Other	Affected Line Item in Condensed Consolidated Statements of Operations [a]

	Comprehensive Loss		
	2017	2016	
	(in millions) [b]		
Amortization of actuarial losses of defined benefit pension plans	$ (1.5)	$ (3.1)	(c)
Recognition of deferred gain on interest rate swap	—	0.1	Other income, net
Total before tax	(1.5)	(3.0)	
Income tax benefit	0.5	1.0	Income tax expense
Total reclassifications for the period, net of tax	$ (1.0)	$ (2.0)	

(a) Continuing operations only.

(b) Amounts in parentheses indicate debits to profit/loss.

(c) The actuarial loss components of Accumulated other comprehensive loss are included in the computation of net periodic pension cost for the six months ended June 30, 2017 and 2016, as disclosed in Note 7 – Pensions.

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NOTE 11 – SEGMENT INFORMATION
The Company has two operating segments, and the Company’s reportable segments are consistent with those operating segments. Business units are organized under each segment because they share certain characteristics, such as technology, marketing, distribution and product application, which create long-term synergies. The principal activities of the Company’s operating segments are as follows:
Environmental Solutions — Our Environmental Solutions Group is a leading manufacturer and supplier of a full range of street sweeper vehicles, sewer cleaner and vacuum loader trucks, hydro-excavation trucks and high-performance waterblasting equipment. The Group manufactures vehicles and equipment in the U.S. and Canada that are sold under the Elgin®, Vactor®, Guzzler®, Westech™ and Jetstream® brand names. Products are sold to both municipal and industrial customers either through a dealer network or direct sales to service customers generally depending on the type and geographic location of the customer. The acquisition of JJE extends the Environmental Solutions Group’s existing sales channel and increases the number of service centers through which its parts, service and rental offerings can be provided to current and potential customers. The acquisition also broadens the Environmental Solutions Group’s product offerings to include other products, such as refuse and recycling collection vehicles, camera systems, ice-making equipment and snow-removal equipment.
In addition, as discussed in Note 2 – Acquisitions, on June 2, 2017, the Company completed the acquisition of TBEI. TBEI is a leading U.S. manufacturer of dump truck bodies and trailers serving maintenance and infrastructure end-markets. The Company expects that the acquisition will enable it to strengthen the Environmental Solutions Group’s market position as a specialty vehicle manufacturer in maintenance and infrastructure end-markets, leveraging its expertise in building chassis-based vehicles.
As discussed in Note 2 – Acquisitions, the assets and liabilities of TBEI have been consolidated into the Condensed Consolidated Balance Sheet as of June 30, 2017, while the post-acquisition results of operations have been included in the Condensed Consolidated Statements of Operations, within the Environmental Solutions Group, subsequent to the June 2, 2017 closing date. We are in the process of determining the impact, if any, that the TBEI acquisition may have on our reportable segments.
Safety and Security Systems — Our Safety and Security Systems Group is a leading manufacturer and supplier of comprehensive systems and products that law enforcement, fire rescue, emergency medical services, campuses, military facilities and industrial sites use to protect people and property. Offerings include systems for campus and community alerting, emergency vehicles, first responder interoperable communications and industrial communications, as well as command and municipal networked security. Specific products include vehicle lightbars and sirens, public warning sirens, general alarm systems, public address systems and public safety software. Products are sold under the Federal Signal™, Federal Signal VAMA® and Victor® brand names. The Group operates manufacturing facilities in the U.S., Europe and South Africa.
Corporate contains those items that are not included in our operating segments.
Net sales by operating segment reflect sales of products and services to external customers, as reported in the Company’s Consolidated Statements of Operations. Intersegment sales are insignificant. The Company evaluates performance based on operating income of the respective segment. Operating income includes all revenues, costs and expenses directly related to the segment involved. In determining operating segment income, neither corporate nor interest expenses are included. The accounting policies of each operating segment are the same as those described in Note 1 – Summary of Significant Accounting Policies in the Company’s Annual Report on Form 10-K for the year ended December 31, 2016. The results for the interim periods are not necessarily indicative of results for a full year.

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The following tables summarize the Company's continuing operations by segment, including Net sales, Operating income (loss), and Total assets:

(in millions)	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Net sales:				
Environmental Solutions	$174.3	$119.4	$302.1	$234.8
Safety and Security Systems	50.1	52.9	100.1	110.3
Total net sales	$224.4	$172.3	$402.2	$345.1
Operating income (loss):				
Environmental Solutions	$21.0	$14.9	$31.3	$31.4
Safety and Security Systems	5.6	6.6	12.0	11.5
Corporate and eliminations	(7.9)	(7.2)	(13.3)	(12.5)
Total operating income	18.7	14.3	30.0	30.4
Interest expense	1.3	0.4	1.9	0.8
Debt settlement charges	—	—	—	0.3
Other income, net	(0.2)	(0.3)	(0.5)	(1.0)
Income before income taxes	$17.6	$14.2	$28.6	$30.3

(in millions)	As of June 30, 2017	As of December 31, 2016
Total assets:		
Environmental Solutions	$763.4	$ 393.3
Safety and Security Systems	205.8	200.1
Corporate and eliminations	27.3	48.7
Total assets of continuing operations	996.5	642.1
Total assets of discontinued operations	1.1	1.1
Total assets	$997.6	$ 643.2

NOTE 12 – RESTRUCTURING

The Company continues to review its businesses for opportunities to reduce operating expenses and focus on executing its strategy based on core competencies and cost efficiencies.

During the three and six months ended June 30, 2017, the Company recorded expenses of $0.1 million and $0.4 million, respectively, related to the closure of a manufacturing facility within the Safety and Security Systems Group. The Company anticipates that the closure of the facility will be complete during 2017 and does not expect any related future costs to be material. During the six months ended June 30, 2016, the Company recorded expenses of $1.2 million related to severance costs incurred in connection with a cost reduction plan within the Safety and Security Systems Group.

The following table summarizes the changes in the Company's restructuring reserves, which are included within Other current liabilities on the Company's Consolidated Balance Sheets:

	2017	2016
Balance at January 1	$0.4	$—
Charge to expense	0.4	1.2
Cash payments	(0.5)	(1.0)
Balance at June 30	$0.3	$0.2

NOTE 13 – FAIR VALUE MEASUREMENTS

The Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy maximizes the use of observable inputs and minimizes the use of unobservable inputs. Observable inputs are developed based on market data obtained from independent sources, while unobservable inputs reflect the Company's assumptions about valuation based on the best information available in the circumstances. The three levels of inputs are classified as follows:

- Level 1 — quoted prices in active markets for identical assets or liabilities;
- Level 2 — observable inputs, other than quoted prices included in Level 1, such as quoted prices for markets that are not active, or other inputs that are observable or can be corroborated by observable market data; and
- Level 3 — unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, including certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

In determining fair value, the Company uses various valuation approaches within the fair value measurement framework. The valuation methodologies used for the Company's assets and liabilities measured at fair value and their classification in the valuation hierarchy are summarized below:

Cash Equivalents

Cash equivalents primarily consist of time-based deposits and interest-bearing instruments with maturities of three months or less. The Company classified cash equivalents as Level 1 due to the short-term nature of these instruments and measured the fair value based on quoted prices in active markets for identical assets.

Interest Rate Swap

As described in Note 5 – Debt, the Company entered into an interest rate swap as a means of fixing the floating interest rate component on a portion of its floating-rate debt. The Company classified the interest rate swap as Level 2 due to the use of a discounted cash flow model based on the terms of the contract and the interest rate curve (Level 2 inputs) to calculate the fair value of the swap.

Contingent Consideration

The Company has a contingent obligation to transfer cash to the former owners of JJE if specified financial results are met over future reporting periods (i.e., an earn-out). Liabilities for contingent consideration are measured at fair value each reporting period, with the acquisition-date fair value included as part of the consideration transferred. Subsequent changes in fair value are recorded as a component of Acquisition and integration-related expenses on the Condensed Consolidated Statements of Operations.

The Company uses an income approach to value the contingent consideration obligation based on future financial performance, which is determined based on the present value of expected future cash flows. Due to the lack of relevant observable market data over fair value inputs, the Company has classified the contingent consideration liability within Level 3 of the fair value hierarchy outlined in ASC 820, Fair Value Measurements. Increases in the expected payout under a contingent consideration arrangement contribute to increases in the fair value of the related liability. Conversely, decreases in the expected payout under a contingent consideration arrangement contribute to decreases in the fair value of the related liability. Changes in assumptions could have an impact on the fair value of the contingent consideration, which has a maximum payout of C$10.0 million (approximately $7.7 million).

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The following tables summarize the Company’s assets and liabilities that are measured at fair value on a recurring basis as of June 30, 2017:

	Fair Value Measurement at Reporting Date Using			
(in millions)	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$5.0	$ —	$ —	$5.0
Interest rate swap	—	0.4	—	0.4
Liabilities:				
Contingent consideration	—	—	5.7	5.7

The following table provides a roll-forward of the fair value of recurring Level 3 fair value measurements in the three months ended June 30, 2017 and 2016:

(in millions)	2017	2016
Contingent consideration liability, at April 1	$5.4	$—
Issuance of contingent consideration in connection with acquisitions	—	4.9
Settlements of contingent consideration liabilities	—	—
Foreign currency translation	—	0.1
Total losses included in earnings [(a)]	0.3	—
Contingent consideration liability, at June 30	$5.7	$5.0

(a) Changes in the fair value of contingent consideration liabilities are included as a component of Acquisition and integration-related expenses within the Condensed Consolidated Statements of Operations.

The following table provides a roll-forward of the fair value of recurring Level 3 fair value measurements in the six months ended June 30, 2017 and 2016:

(in millions)	2017	2016
Contingent consideration liability, at January 1	$5.1	$—
Issuance of contingent consideration in connection with acquisitions	—	4.9
Settlements of contingent consideration liabilities	—	—
Foreign currency translation	0.1	0.1
Total losses included in earnings [(a)]	0.5	—
Contingent consideration liability, at June 30	$5.7	$5.0

(a) Changes in the fair value of contingent consideration liabilities are included as a component of Acquisition and integration-related expenses within the Condensed Consolidated Statements of Operations.

NOTE 14 – DISCONTINUED OPERATIONS

The Company recorded a net loss from discontinued operations and disposal of $0.1 million in the three months ended June 30, 2017. In the three months ended June 30, 2016, the Company recorded a net loss from discontinued operations and disposal of $0.3 million. The losses in both periods primarily related to adjustments of estimated product liability obligations of previously discontinued businesses, resulting from updated actuarial valuations.

The Company recorded a net loss from discontinued operations and disposal of less than $0.1 million in the six months ended June 30, 2017. The Company recorded a net gain from discontinued operations and disposal of $2.9 million in the six months ended June 30, 2016, primarily driven by the $4.0 million net gain on disposal of the Fire Rescue Group, which was discontinued in 2015, partially offset by the $0.6 million net loss that the Fire Rescue Group realized in its 2016 operations up to the January 29, 2016 sale completion date. The net gain on disposal includes a $1.5 million charge to recognize a liability in connection with a Latvian commercial dispute.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS — (CONTINUED)
(Unaudited)

The following table presents the operating results of the Company’s discontinued Fire Rescue Group for the six months ended June 30, 2016:

(in millions)	Six Months Ended June 30, 2016 [a]
Net sales	$ 4.2
Cost of sales	3.9
Gross profit	0.3
Selling, engineering, general and administrative expenses	1.1
Operating loss	(0.8)
Other (income) expense, net	—
Loss before income taxes	(0.8)
Income tax benefit	(0.2)
Net loss from operations	$ (0.6)

(a) Only includes activity in the period up to the completion of the sale on January 29, 2016.

Assets and liabilities of discontinued operations

The following table presents the assets and liabilities of the Company’s discontinued operations, which include the Fire Rescue Group, as well as other operations discontinued in prior periods, as of June 30, 2017 and December 31, 2016:

	June 30, 2017			December 31, 2016		
(in millions)	Fire Rescue	Other	Total	Fire Rescue	Other	Total
Deferred tax assets	$—	$ 1.1	$ 1.1	$—	$ 1.1	$ 1.1
Long-term assets of discontinued operations	$—	$ 1.1	$ 1.1	$—	$ 1.1	$ 1.1
Accrued liabilities:						
Other current liabilities	$—	$ 0.8	$ 0.8	$ 1.3	$ 0.8	$ 2.1
Current liabilities of discontinued operations	$—	$ 0.8	$ 0.8	$ 1.3	$ 0.8	$ 2.1
Other long-term liabilities	$—	$ 2.0	$ 2.0	$—	$ 2.0	$ 2.0
Long-term liabilities of discontinued operations	$—	$ 2.0	$ 2.0	$—	$ 2.0	$ 2.0

The Company retains certain liabilities for other operations discontinued in prior periods, primarily for environmental remediation and product liability. Included in liabilities of discontinued operations at June 30, 2017 and December 31, 2016 is $0.5 million and $0.6 million, respectively, related to environmental remediation at the Pearland, Texas facility, and $1.8 million and $1.8 million, respectively, relating to estimated product liability obligations of the discontinued North American refuse truck body business.

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is designed to provide information that is supplemental to, and should be read together with, the condensed consolidated financial statements and the accompanying notes contained in this Form 10-Q, as well as the Company's Annual Report on Form 10-K for the year ended December 31, 2016. Information in MD&A is intended to assist the reader in obtaining an understanding of (i) the condensed consolidated financial statements, (ii) the Company's business segments and how the results of those segments impact the Company's results of operations and financial condition as a whole and (iii) how certain accounting principles affect the Company's condensed consolidated financial statements. The Company's results for interim periods are not necessarily indicative of annual operating results.

Executive Summary

The Company is a leading global manufacturer and supplier of (i) sewer cleaners, vacuum trucks, street sweepers and other environmental vehicles and equipment and (ii) safety, security and communication equipment. We also are a designer and supplier of technology-based products and services for the public safety market. Following the June 2016 acquisition of JJE, the Company also distributes and re-sells products manufactured by other companies, which include refuse and recycling collection vehicles, camera systems, ice resurfacing equipment and snow-removal equipment. In addition, we sell parts and provide service, repair, equipment rentals and training as part of a comprehensive offering to our customer base.

On June 2, 2017, the Company completed the acquisition of all of the outstanding shares of capital stock of TBEI, a leading U.S. manufacturer of dump truck bodies and trailers serving maintenance and infrastructure end-markets. The Company expects that the acquisition of TBEI will enable it to strengthen its market position as a specialty vehicle manufacturer in maintenance and infrastructure markets, leverage its expertise in building chassis-based vehicles and balance the mix of revenues it generates from municipal and industrial markets.

We operate 14 manufacturing facilities in five countries around the world and provide products and integrated solutions to municipal, governmental, industrial and commercial customers in all regions of the world.

As described in Note 11 – Segment Information to the accompanying condensed consolidated financial statements, the Company's business units are organized and managed in two operating segments: the Environmental Solutions Group and the Safety and Security Systems Group.

Net sales increased by $52.1 million, or 30%, in the three months ended June 30, 2017 as compared to the prior-year quarter. Our Environmental Solutions Group reported a net sales increase of $54.9 million, or 46%, largely due to $31.4 million of incremental net sales resulting from the JJE acquisition, which was completed in June 2016, the addition of $18.1 million of net sales from the TBEI acquisition, and an increase in shipments of sewer cleaners and vacuum trucks in the U.S. Within our Safety and Security Systems Group, net sales decreased by $2.8 million, or 5%, largely due to lower sales of public safety products.

For the six months ended June 30, 2017, net sales increased by $57.1 million, or 17%, largely due to an increase of $67.3 million, or 29%, in sales within our Environmental Solutions Group, largely due to $54.7 million of incremental net sales resulting from the JJE acquisition, which was completed in June 2016, the addition of $18.1 million of net sales from the TBEI acquisition and improved domestic sales of vacuum trucks, partially offset by lower shipments of street sweepers in the U.S. In our Safety and Security Systems Group, net sales decreased by $10.2 million, or 9%, primarily due to lower sales into public safety markets.

Operating income increased by $4.4 million, or 31%, to $18.7 million in the three months ended June 30, 2017 as compared to the prior-year quarter, primarily driven by a $6.1 million increase within our Environmental Solutions Group associated with increased sales volumes, a $1.0 million favorable adjustment of product liability and workers compensation reserves, a $0.8 million operating income contribution from TBEI and the effects of a full quarter of operating income from JJE, compared to only one month in the prior-year quarter following the June 3, 2016 acquisition. Partially offsetting this improvement was a $2.0 million increase in purchase accounting expense effects, a $2.5 million increase in depreciation and amortization expense, largely resulting from depreciation on rental equipment acquired in the JJE transaction and amortization of intangible assets resulting from the TBEI acquisition and a $0.2 million increase in acquisition-related expenses. Within our Safety and Security Systems Group, operating income in the three months ended June 30, 2017 decreased by $1.0 million, while corporate expenses increased by $0.7 million, primarily due to higher acquisition-related expenses and legal costs. Consolidated operating margin for the three months ended June 30, 2017, inclusive of the incremental depreciation and amortization, purchase accounting expense effects and acquisition costs, was 8.3%, unchanged from the prior-year quarter.

For the six months ended June 30, 2017, operating income was $0.4 million lower than the corresponding period of the prior

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year. Within our Environmental Solutions Group, operating income for the six months ended June 30, 2017 was relatively unchanged from the first half of last year, with increased sales volumes, a $0.8 million operating income contribution from TBEI and the effects of including six months of operating income from JJE in 2017, compared to only one month in the prior-year period being partially offset by a $5.2 million increase in depreciation and amortization expense, a $2.5 million increase in purchase accounting expense effects and a $0.4 million increase in acquisition-related costs. Within our Safety and Security Systems Group, operating income in the six months ended June 30, 2017 increased by $0.5 million, where reductions in selling, engineering, general and administrative ("SEG&A") expenses and restructuring expenses of $0.2 million and $0.8 million, respectively, more than offset a $0.5 million decrease in gross profit. Corporate expenses in the six months ended June 30, 2017 increased by $0.8 million, primarily due to higher acquisition-related expenses and increased legal costs. Consolidated operating margin for the six months ended June 30, 2017, inclusive of the incremental depreciation and amortization, purchase accounting expense effects and acquisition costs, was 7.5%, compared to 8.8% in the prior-year period.

Income before income taxes increased by $3.4 million, or 24%, to $17.6 million for the three months ended June 30, 2017 as compared to the prior-year quarter. The increase resulted from the higher operating income, partially offset by a $0.9 million increase in interest expense and a $0.1 million reduction in other income. For the six months ended June 30, 2017, income before income taxes decreased by $1.7 million as compared to the prior-year period, primarily due to a $0.4 million decrease in operating income, and a $1.1 million increase in interest expense, associated with higher average debt levels.

Net income from continuing operations for the three months ended June 30, 2017 was impacted by a $1.3 million increase in income tax expense, largely due to higher pre-tax income levels. The effective tax rate for the three months ended June 30, 2017 was 34.7%, compared to 33.8% in the prior-year quarter. For the six months ended June 30, 2017, net income from continuing operations benefited from a $0.6 million reduction in income tax expense, largely due to lower pre-tax income levels. The effective tax rate for the six months ended June 30, 2017 was 34.6%, compared to 34.7% in the prior-year period.

Total orders for the three months ended June 30, 2017 were $271.1 million, an increase of $83.8 million, or 45%, compared to the prior-year quarter. Our Environmental Solutions Group reported total orders of $214.7 million in the second quarter of 2017, an increase of $79.4 million, or 59%, compared to the prior-year quarter. The improvement was driven by the TBEI acquisition and organic order growth of approximately $22 million, or 24%, primarily represented by improved orders for sewer cleaners and vacuum trucks. Orders in the three months ended June 30, 2017 within our Safety and Security Systems Group were up $4.4 million, primarily due to higher domestic orders for public safety products and improved international orders for industrial products.

For the six months ended June 30, 2017, total orders were $485.7 million, an increase of $162.7 million, or 50%, compared to the prior-year period. Our Environmental Solutions Group reported total orders of $381.3 million in the first half of 2017, an increase of $162.8 million, or 75%, compared to the prior-year quarter. The improvement was driven by the TBEI acquisition, the effects of the inclusion of JJE orders for six months in 2017, and organic order growth of approximately $56 million, or 32%, primarily represented by improved orders for sewer cleaners and vacuum trucks. Orders in the six months ended June 30, 2017 within our Safety and Security Systems Group of $104.4 million were unchanged from the same period of the prior year.

Our consolidated backlog at June 30, 2017 was $222.7 million, up $72.9 million, compared to $149.8 million at June 30, 2016, largely as a result of the increase in orders received in the six months ended June 30, 2017 as well as the addition of the backlog of orders acquired in the TBEI acquisition.

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Results of Operations

The following table summarizes our Condensed Consolidated Statements of Operations and illustrates the key financial indicators used to assess our consolidated financial results:

	Three Months Ended June 30,			Six Months Ended June 30,		
($ in millions, except per share data)	2017	2016	Change	2017	2016	Change
Net sales	$224.4	$172.3	$52.1	$402.2	$345.1	$57.1
Cost of sales	169.7	127.3	42.4	303.9	252.7	51.2
Gross profit	54.7	45.0	9.7	98.3	92.4	5.9
Selling, engineering, general and administrative expenses	34.9	30.3	4.6	66.4	59.9	6.5
Acquisition and integration-related expenses	1.0	0.4	0.6	1.5	0.9	0.6
Restructuring	0.1	—	0.1	0.4	1.2	(0.8)
Operating income	18.7	14.3	4.4	30.0	30.4	(0.4)
Interest expense	1.3	0.4	0.9	1.9	0.8	1.1
Debt settlement charges	—	—	—	—	0.3	(0.3)
Other income, net	(0.2)	(0.3)	0.1	(0.5)	(1.0)	0.5
Income before income taxes	17.6	14.2	3.4	28.6	30.3	(1.7)
Income tax expense	6.1	4.8	1.3	9.9	10.5	(0.6)
Income from continuing operations	11.5	9.4	2.1	18.7	19.8	(1.1)
(Loss) gain from discontinued operations and disposal, net of tax	(0.1)	(0.3)	0.2	—	2.9	(2.9)
Net income	$11.4	$9.1	$2.3	$18.7	$22.7	$(4.0)
Operating data:						
Operating margin	8.3 %	8.3 %	— %	7.5 %	8.8 %	(1.3)%
Diluted earnings per share – Continuing operations	$0.19	$0.15	$0.04	$0.31	$0.32	$(0.01)
Total orders	271.1	187.3	83.8	485.7	323.0	162.7
Backlog	222.7	149.8	72.9	222.7	149.8	72.9
Depreciation and amortization	6.6	4.2	2.4	12.3	7.2	5.1

Net sales

Net sales increased by $52.1 million, or 30%, in the three months ended June 30, 2017 as compared to the prior-year quarter. The Environmental Solutions Group reported a net sales increase of $54.9 million, or 46%, largely due to $31.4 million of incremental net sales resulting from the JJE acquisition, which was completed in June 2016, the addition of $18.1 million of net sales from the TBEI acquisition, and an increase in shipments of sewer cleaners and vacuum trucks in the U.S. Within the Safety and Security Systems Group, net sales decreased by $2.8 million, or 5%, largely due to lower sales of public safety products.

For the six months ended June 30, 2017, net sales increased by $57.1 million, or 17%, largely due to an increase of $67.3 million, or 29%, in sales within the Environmental Solutions Group, largely due to $54.7 million of incremental net sales resulting from the JJE acquisition, which was completed in June 2016, the addition of $18.1 million of net sales from the TBEI acquisition and improved domestic sales of vacuum trucks, partially offset by lower shipments of street sweepers in the U.S. In the Safety and Security Systems Group, net sales decreased by $10.2 million, or 9%, primarily due to lower sales into public safety markets.

Cost of sales

Cost of sales increased by $42.4 million, or 33%, for the three months ended June 30, 2017 compared to the prior-year quarter, largely due to an increase of $45.0 million, or 48%, within the Environmental Solutions Group, primarily driven by increased sales volumes, additional cost of sales from the TBEI acquisition and the effects of three months of JJE activity in the current-year quarter compared with one month last year, recognition of approximately $2.0 million more expense associated with purchase accounting effects and a $1.9 million increase in depreciation expense, largely resulting from depreciation on rental

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equipment acquired in the JJE transaction. This increase was partially offset by a decrease in cost of sales of $2.6 million, or 8%, within the Safety and Security Systems Group, largely driven by lower sales volumes.

For the six months ended June 30, 2017, cost of sales increased by $51.2 million, or 20%, largely due to an increase of $60.9 million, or 34%, within the Environmental Solutions Group, primarily driven by increased sales volumes, additional cost of sales from the TBEI acquisition and the effects of six months of JJE activity in the current-year period compared with one month last year, recognition of approximately $2.5 million more expense associated with purchase accounting effects and a $4.5 million increase in depreciation expense. This increase was partially offset by a decrease in cost of sales of $9.7 million, or 13%, within the Safety and Security Systems Group, largely driven by lower sales volumes.

Gross profit

Gross profit increased by $9.7 million, or 22%, for the three months ended June 30, 2017, compared to the prior-year quarter, primarily due to a $9.9 million improvement within the Environmental Solutions Group, partially offset by a $0.2 million reduction within the Safety and Security Systems Group. The increase in gross profit within the Environmental Solutions Group included the impact of the aforementioned increase in depreciation and purchase accounting expense effects. Gross margin for the three months ended June 30, 2017 decreased to 24.4%, from 26.1% in the prior-year quarter, largely due to incremental depreciation expense and purchase accounting expense effects, partially offset by gross margin improvement within the Safety and Security Systems Group related to the savings associated with previously implemented material cost reduction initiatives and reductions in employee labor costs.

For the six months ended June 30, 2017, gross profit increased by $5.9 million, or 6%, primarily due to a $6.4 million improvement in the Environmental Solutions Group. Gross margin for the six months ended June 30, 2017 was 24.4%, compared to 26.8% in the prior-year period, primarily driven by the same factors referenced above in the three-month period.

Selling, engineering, general and administrative expenses

SEG&A expenses for the three months ended June 30, 2017 increased by $4.6 million, or 15%, compared to the prior-year quarter, largely due to increases of $3.6 million and $0.7 million within the Environmental Solutions Group and Safety and Security Systems Group, respectively. The increase in SEG&A expenses within the Environmental Solutions Group was largely the result of the addition of expenses of businesses acquired in the current and prior year and a $0.6 million increase in amortization expense, partially offset by a $1.0 million favorable adjustment of product liability and workers compensation reserves. The increase in SEG&A expenses within the Safety and Security Systems Group primarily related to strategic investments in support of new product development initiatives.

For the six months ended June 30, 2017, SEG&A expenses increased by $6.5 million, or 11%, primarily represented by a $6.1 million increase within the Environmental Solutions Group, largely the result of the addition of expenses of businesses acquired in the current and prior year and a $0.7 million increase in amortization expense, partially offset by a $1.0 million favorable adjustment of product liability and workers compensation reserves, and a $0.6 million increase in corporate expenses, largely associated with increased legal costs.

Operating income

Operating income increased by $4.4 million, or 31%, to $18.7 million in the three months ended June 30, 2017 as compared to the prior-year quarter, primarily driven by a $6.1 million increase within the Environmental Solutions Group associated with increased sales volumes, a $1.0 million favorable adjustment of product liability and workers compensation reserves, a $0.8 million operating income contribution from TBEI and the effects of a full quarter of operating income from JJE, compared to only one month in the prior-year quarter following the June 3, 2016 acquisition. Partially offsetting this improvement was a $2.0 million increase in purchase accounting expense effects, a $2.5 million increase in depreciation and amortization expense, largely resulting from depreciation on rental equipment acquired in the JJE transaction and amortization of intangible assets resulting from the TBEI acquisition and a $0.2 million increase in acquisition-related expenses. Within the Safety and Security Systems Group, operating income in the three months ended June 30, 2017 decreased by $1.0 million, while corporate expenses increased by $0.7 million, primarily due to higher acquisition-related expenses and legal costs. Consolidated operating margin for the three months ended June 30, 2017, inclusive of the incremental depreciation and amortization, purchase accounting expense effects and acquisition costs, was 8.3%, unchanged from the prior-year quarter.

For the six months ended June 30, 2017, operating income was $0.4 million lower than the corresponding period of the prior year. Within the Environmental Solutions Group, operating income for the six months ended June 30, 2017 was relatively unchanged from the first half of last year, with increased sales volumes, a $0.8 million operating income contribution from TBEI and the effects of including six months of operating income from JJE in 2017, compared to only one month in the prior-year period being partially offset by a $5.2 million increase in depreciation and amortization expense, a $2.5 million increase in

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purchase accounting expense effects and a $0.4 million increase in acquisition-related costs. Within the Safety and Security Systems Group, operating income in the six months ended June 30, 2017 increased by $0.5 million, where reductions in SEG&A expenses and restructuring expenses of $0.2 million and $0.8 million, respectively, more than offset a $0.5 million decrease in gross profit. Corporate expenses in the six months ended June 30, 2017 increased by $0.8 million, primarily due to higher acquisition-related expenses and increased legal costs. Consolidated operating margin for the six months ended June 30, 2017, inclusive of the incremental depreciation and amortization, purchase accounting expense effects and acquisition costs, was 7.5%, compared to 8.8% in the prior-year period.

Interest expense

Interest expense for the three and six months ended June 30, 2017 increased by $0.9 million and $1.1 million, respectively, compared to the corresponding periods of the prior year, largely due to higher average debt levels.

Other income, net

For the three and six months ended June 30, 2017, other income, net, totaled $0.2 million and $0.5 million, respectively. For the three and six months ended June 30, 2016, other income, net, totaled $0.3 million and $1.0 million, respectively. The income in each of the periods was primarily represented by realized gains from foreign currency transactions.

Income tax expense

The Company recognized income tax expense of $6.1 million and $4.8 million for the three months ended June 30, 2017 and 2016, respectively. The increase in tax expense in the current-year quarter is largely due to higher pre-tax income levels. The effective tax rate for the three months ended June 30, 2017 was 34.7%, compared to 33.8% in the prior-year quarter.

For the six months ended June 30, 2017 and 2016, the Company recognized income tax expense of $9.9 million and $10.5 million, respectively. The decrease in tax expense in the first half of 2017 is largely due to lower pre-tax income levels. The effective tax rate was 34.6% and 34.7% for the six months ended June 30, 2017 and 2016, respectively.

Income from continuing operations

Income from continuing operations for the three months ended June 30, 2017 increased by $2.1 million compared to the prior-year period, largely due to the aforementioned increase in operating income, partially offset by the increase in interest expense, the $0.1 million reduction in other income and the $1.3 million increase in income tax expense.

For the six months ended June 30, 2017, income from continuing operations decreased by $1.1 million compared to the corresponding period of the prior year, largely due to the reduction in operating income, the increase in interest expense and the $0.5 million decrease in other income, partially offset by the $0.6 million reduction in income tax expense and the absence of $0.3 million in debt settlement charges incurred in connection with the Company's debt refinancing completed in the prior-year quarter.

(Loss) gain from discontinued operations and disposal, net of tax

The Company recorded a net loss from discontinued operations and disposal of $0.1 million in the three months ended June 30, 2017. In the three months ended June 30, 2016, the Company recorded a net loss from discontinued operations and disposal of $0.3 million. The losses in both periods primarily related to adjustments of estimated product liability obligations of previously discontinued businesses, resulting from updated actuarial valuations.

The Company recorded a net loss from discontinued operations and disposal of less than $0.1 million in the six months ended June 30, 2017. The Company recorded a net gain from discontinued operations and disposal of $2.9 million in the six months ended June 30, 2016, primarily driven by the $4.0 million net gain on disposal of the Fire Rescue Group, which was discontinued in 2015, partially offset by the $0.6 million net loss that the Fire Rescue Group realized in its 2016 operations up to the January 29, 2016 sale completion date. The net gain on disposal includes a $1.5 million charge to recognize a liability in connection with a Latvian commercial dispute.

Orders

The Company's historical order information presented herein includes orders received from JJE. Subsequent to the completion of the acquisition of JJE on June 3, 2016, orders from JJE are no longer included in the Company's total orders. Instead, subsequent to the completion of the acquisition of JJE, total orders will include orders that JJE receives from end customers. These orders may include orders for products manufactured or supplied by the Company's Environmental Solutions Group, as well as for products manufactured or supplied by third-party vendors.

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During the three and six months ended June 30, 2016, orders that were received from JJE prior to the acquisition date, which were included in total orders, were $0.7 million and $3.7 million, respectively.

On the date of acquisition, JJE had a backlog of orders from its end customers of $33.4 million. These acquired orders were included in total orders reported for the three and six months ended June 30, 2016. In addition, on the acquisition date, the Company’s backlog included $6.9 million of orders from JJE. Such orders were presented as a reduction of total orders for the three and six months ended June 30, 2016.

On the date of acquisition, TBEI had a backlog of orders from its end customers of $44.8 million. These acquired orders were included in total orders reported for the three and six months ended June 30, 2017.

Three months ended June 30, 2017 vs. three months ended June 30, 2016

Total orders for the three months ended June 30, 2017 were $271.1 million, an increase of $83.8 million, or 45%, compared to the prior-year quarter. Our Environmental Solutions Group reported total orders of $214.7 million in the second quarter of 2017, an increase of $79.4 million, or 59%, compared to the prior-year quarter. The improvement was driven by the acquisition of TBEI, which contributed $57.9 million, and organic order growth of approximately $22 million, or 24%, primarily represented by improved orders for sewer cleaners and vacuum trucks. Orders in the three months ended June 30, 2017 within our Safety and Security Systems Group were up $4.4 million, primarily due to higher domestic orders for public safety products and improved international orders for industrial products.

U.S. municipal and governmental orders decreased by $3.4 million, or 4%, primarily due to a $5.8 million reduction within the Environmental Solutions Group, largely due to decreased street sweeper orders. These reductions were partially offset by a $2.4 million increase in municipal orders within the Safety and Security Systems Group, largely driven by the timing of orders received from public safety markets.

U.S. industrial orders increased by $88.8 million, or 231%, primarily due to an $87.8 million increase within the Environmental Solutions Group. The acquisition of TBEI added $57.9 million of orders in the quarter. In addition, higher demand for vacuum trucks and sewer cleaners resulted in order increases of $14.0 million and $5.0 million, respectively, and orders for acquired product lines, including rental equipment and refuse trucks, were up largely as a result of the prior-year JJE acquisition. The Safety and Security Systems Group reported a $1.0 million order increase due to improved demand for outdoor warning systems.

Non-U.S. orders decreased by $1.6 million, or 3%, primarily due to a $2.6 million decrease within the Environmental Solutions Group. This decrease was largely due to the net effect of the inclusion of the acquired JJE order backlog in the prior-year quarter, partially offset by having two additional months of JJE orders in the second quarter of 2017. Within the Safety and Security Systems Group, non-U.S. orders were up $1.0 million, primarily due to improved demand in global industrial markets.

Six months ended June 30, 2017 vs. six months ended June 30, 2016

Total orders for the six months ended June 30, 2017 were $485.7 million, an increase of $162.7 million, or 50%, compared to the prior-year period. Our Environmental Solutions Group reported total orders of $381.3 million in the first half of 2017, an increase of $162.8 million, or 75%, compared to the prior-year period. The improvement was driven by the acquisition of TBEI, which contributed $57.9 million, the effects of the inclusion of JJE orders for six months in 2017, and organic order growth of approximately $56 million, or 32%, primarily represented by improved orders for sewer cleaners and vacuum trucks. Orders in the six months ended June 30, 2017 within our Safety and Security Systems Group of $104.4 million were relatively unchanged from the corresponding period of the prior year.

U.S. municipal and governmental orders increased by $10.9 million, or 7%, primarily due to a $12.3 million improvement within the Environmental Solutions Group, largely represented by a $13.4 million increase in orders for sewer cleaners. This improvement was partially offset by a $1.4 million reduction in municipal orders within the Safety and Security Systems Group, largely driven by the timing of orders received from public safety markets.

U.S. industrial orders increased by $121.0 million, or 155%, largely driven by a $119.2 million increase within the Environmental Solutions Group, primarily related to the acquisition of TBEI which contributed $57.9 million, the effects of the inclusion of JJE orders for six months in 2017, and improved orders for vacuum trucks and sewer cleaners, which contributed $23.3 million and $18.5 million of the increase, respectively. Within the Safety and Security Systems Group, industrial orders were up $1.8 million, primarily due to improved domestic orders of industrial products.

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Non-U.S. orders increased by $30.8 million, or 33%, largely due to a $31.3 million increase within the Environmental Solutions Group, reflecting increased Canadian orders received following the acquisition of JJE in the second quarter of 2016. Partially offsetting this increase was a $0.5 million decrease within the Safety and Security Systems Group.

Backlog

Backlog was $222.7 million at June 30, 2017 compared to $149.8 million at June 30, 2016. The increase of $72.9 million, or 49%, was primarily due to an $80.8 million increase in backlog within the Environmental Solutions Group, largely due to the TBEI acquisition, whose backlog at June 30, 2017 was $39.8 million, and increased demand for vacuum trucks and sewer cleaners. These increases were partially offset by a $7.9 million reduction in backlog within the Safety and Security Systems Group, primarily due to a reduction in orders for public safety products.

Backlogs vary by group due to the nature of the Company's products and the buying patterns of its customers. TBEI's product lines typically experience average lead times ranging from one to three months. Following the acquisition of TBEI, the Environmental Solutions Group's weighted average backlog is expected to range from three to five months of shipments. The Safety and Security Systems Group typically experiences an average backlog of approximately two months of shipments. Production of the Company's June 30, 2017 backlog is expected to be substantially completed during the remainder of 2017.

Environmental Solutions

The following table summarizes the Environmental Solutions Group's operating results as of and for the three and six months ended June 30, 2017 and 2016:

	Three Months Ended June 30,			Six Months Ended June 30,		
($ in millions)	2017	2016	Change	2017	2016	Change
Net sales	$174.3	$119.4	$54.9	$302.1	$234.8	$67.3
Operating income	21.0	14.9	6.1	31.3	31.4	(0.1)
Operating data:						
Operating margin	12.0 %	12.5 %	(0.5)%	10.4 %	13.4 %	(3.0)%
Total orders	$214.7	$135.3	$79.4	$381.3	$218.5	$162.8
Backlog	197.8	117.0	80.8	197.8	117.0	80.8
Depreciation and amortization	5.6	3.1	2.5	10.2	4.9	5.3

Three months ended June 30, 2017 vs. three months ended June 30, 2016

Total orders increased by $79.4 million, or 59%, for the three months ended June 30, 2017. U.S. orders increased by $82.0 million, or 88%, primarily due to the acquisition of TBEI which contributed $57.9 million of orders, improvements in orders for vacuum trucks and sewer cleaners of $14.0 million and $5.0 million, respectively, and higher orders for acquired product lines, including rental equipment and refuse trucks, which were up largely as a result of the prior-year JJE acquisition. Partially offsetting these increases was a decrease in orders for street sweepers, due to fewer fleet orders. Non-U.S. orders decreased by $2.6 million, largely due to the net effect of the inclusion of the acquired JJE order backlog in the prior-year quarter, partially offset by having two additional months of JJE orders in the second quarter of 2017 as compared to the prior-year quarter.

Net sales increased by $54.9 million, or 46%, for the three months ended June 30, 2017. U.S. sales increased by $35.3 million, or 37%, primarily due to the acquisition of TBEI which contributed $18.1 million of sales, increases in shipments of sewer cleaners, vacuum trucks and waterblasting equipment of $4.6 million, $2.3 million and $1.9 million, respectively, as well as higher sales from having three months of JJE sales in the current-year quarter, including a $5.0 million improvement in rental income. Partially offsetting these increases was a decrease in sales of street sweepers of $4.1 million. Non-U.S. sales increased by $19.6 million, or 80%, primarily as a result of having two additional months of JJE net sales in the second quarter of 2017 as compared to the prior-year quarter.

Cost of sales increased by $45.0 million, or 48%, for the three months ended June 30, 2017, primarily attributable to increased sales volumes, additional cost of sales from the TBEI acquisition and the effects of three months of JJE activity in the current-year quarter compared with one month last year, recognition of approximately $2.0 million more expense associated with purchase accounting effects in connection with current and prior-year acquisitions and a $1.9 million increase in depreciation expense, largely resulting from depreciation on rental equipment acquired in the

JJE transaction. Gross margin decreased to 20.8% from 22.1% in the prior-year quarter, largely due to incremental depreciation expense and purchase accounting expense effects.

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SEG&A expenses increased by $3.6 million for the three months ended June 30, 2017, largely due to the addition of expenses of businesses acquired in the current and prior year and a $0.6 million increase in amortization expense, partially offset by a $1.0 million favorable adjustment of product liability and workers compensation reserves.
Operating income for the three months ended June 30, 2017 increased by $6.1 million, largely due to a $9.9 million increase in gross profit, inclusive of the aforementioned purchase accounting expense effects, partially offset by the $3.6 million increase in SEG&A expenses and a $0.2 million increase in acquisition and integration-related expenses.
Six months ended June 30, 2017 vs. six months ended June 30, 2016
Total orders increased by $162.8 million, or 75%, for the six months ended June 30, 2017. U.S. orders increased by $131.5 million, or 81%, largely due to the current-year acquisition of TBEI which contributed $57.9 million of orders. The prior-year acquisition of JJE also contributed $17.5 million of the order improvement. The organic growth in the U.S. was largely due to improvements in orders for sewer cleaners, vacuum trucks and street sweepers of $30.9 million, $19.3 million, and $5.9 million, respectively. Non-U.S. orders increased by $31.3 million, or 56%, reflecting increased Canadian orders received following the acquisition of JJE in the second quarter of 2016.
Net sales increased by $67.3 million, or 29%, for the six months ended June 30, 2017. U.S. sales increased by $38.8 million, or 21%, primarily due to the current-year acquisition of TBEI which contributed $18.1 million of sales, increases in shipments of vacuum trucks and waterblasting equipment of $4.2 million and $2.6 million, respectively, as well as higher sales from having six months of JJE activity in the current-year period, including an $8.9 million improvement in rental income. These improvements were partially offset by a $10.8 million decrease in shipments of street sweepers. Non-U.S. sales increased by $28.5 million, or 62%, primarily as a result of the net effect of the JJE acquisition.
Cost of sales increased by $60.9 million, or 34%, for the six months ended June 30, 2017, primarily attributable to higher sales volumes, additional cost of sales from the TBEI acquisition and the effects of six months of JJE activity in the current-year period compared with one month last year, recognition of approximately $2.5 million more expense associated with purchase accounting effects in connection with the TBEI and JJE acquisitions and a $4.5 million increase in depreciation expense. Gross margin decreased to 20.1% from 23.1% in the prior-year period, largely due to incremental depreciation expense, purchase accounting expense effects.
SEG&A expenses increased by $6.1 million for the six months ended June 30, 2017, largely due to the addition of expenses of businesses acquired in the current and prior year and a $0.7 million increase in amortization expense, partially offset by $1.0 million favorable adjustment of product liability and workers compensation reserves.
Operating income for the six months ended June 30, 2017 decreased by $0.1 million, largely due to the $6.1 million increase in SEG&A expenses and the inclusion of $0.4 million of acquisition and integration-related expenses, partially offset by a $6.4 million increase in gross profit, inclusive of the aforementioned purchase accounting expense effects.
Backlog was $197.8 million at June 30, 2017, up 68% compared to $117.0 million at June 30, 2016. The increase is primarily due to the contribution of $39.8 million of backlog from TBEI, as well as the effects of improved demand for sewer cleaners and vacuum trucks, partially offset by lower street sweeper orders.
Safety and Security Systems
The following table summarizes the Safety and Security Systems Group’s operating results as of and for the three and six months ended June 30, 2017 and 2016:

	Three Months Ended June 30,			Six Months Ended June 30,		
($ in millions)	2017	2016	Change	2017	2016	Change
Net sales	$50.1	$52.9	$(2.8)	$100.1	$110.3	$(10.2)
Operating income	5.6	6.6	(1.0)	12.0	11.5	0.5
Operating data:						
Operating margin	11.2 %	12.5 %	(1.3)%	12.0 %	10.4 %	1.6 %
Total orders	$56.4	$52.0	$4.4	$104.4	$104.5	$(0.1)
Backlog	24.9	32.8	(7.9)	24.9	32.8	(7.9)

Depreciation and amortization	1.0	1.1	(0.1)	2.0	2.2	(0.2)

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Three months ended June 30, 2017 vs. three months ended June 30, 2016

Total orders increased by $4.4 million or 8%, for the three months ended June 30, 2017. In the aggregate, U.S. orders increased by $3.4 million, primarily driven by improvements in orders for public safety products and industrial products of $2.4 million and $1.0 million, respectively. Non-U.S. orders increased by $1.0 million, primarily due to a $3.0 million improvement in orders for industrial products, inclusive of the receipt of large orders in the current-year quarter from customers in the Middle East. Partially offsetting these increases was a $2.0 million reduction in orders from customers in international public safety markets.

Net sales decreased by $2.8 million, or 5%, for the three months ended June 30, 2017. U.S. sales decreased by $0.8 million, or 2%, primarily due to a $1.4 million reduction in sales into domestic public safety markets, partially offset by a $0.4 million improvement in sales into domestic industrial markets and a $0.2 million improvement in sales of outdoor warning systems. Non-U.S. sales decreased by $2.0 million, or 11%, primarily due to reductions in sales into international public safety markets of $1.8 million and international outdoor warning systems of $0.5 million. Partially offsetting these decreases was a $0.3 million improvement in sales into international industrial markets.

Cost of sales decreased by $2.6 million, or 8%, for the three months ended June 30, 2017, largely due to the effects of lower sales volume, as well as the effects of previously implemented material cost reduction initiatives and reductions in employee expenses and labor costs. These actions contributed to an improved gross margin for the three months ended June 30, 2017 of 36.7%, compared to 35.2% in the prior-year quarter.

SEG&A expenses for the three months ended June 30, 2017 increased $0.7 million compared to the prior-year quarter, primarily related to strategic investments in support of new product development initiatives.

Operating income decreased by $1.0 million for the three months ended June 30, 2017, largely due to the $0.2 million reduction in gross profit, the $0.7 million increase in SEG&A expenses and a $0.1 million increase in restructuring charges.

Six months ended June 30, 2017 vs. six months ended June 30, 2016

Total orders decreased by $0.1 million for the six months ended June 30, 2017. In the aggregate, U.S. orders increased by $0.4 million, primarily driven by increased orders for industrial products. Non-U.S. orders decreased by $0.5 million, primarily due to reductions in orders for public safety products and outdoor warning systems of $3.8 million and $1.0 million, respectively. Partially offsetting these decreases was a $4.3 million improvement in orders in international industrial markets.

Net sales decreased by $10.2 million, or 9%, for the six months ended June 30, 2017. U.S. sales decreased by $4.6 million, or 7%, largely due to a reduction in sales into domestic public safety markets, largely due to the timing of sales to major municipalities in the prior-year period. Non-U.S. sales decreased by $5.6 million, or 14%, primarily due to reductions in sales into international public safety markets and industrial markets of $5.0 million and $0.9 million, respectively. Partially offsetting these decreases was a $0.3 million improvement in sales of outdoor warning systems.

Cost of sales decreased by $9.7 million, or 13%, for the six months ended June 30, 2017, largely due to the effects of lower sales volume, as well as the effects of previously implemented material cost reduction initiatives. These actions contributed to an improved gross margin for the six months ended June 30, 2017 of 37.6%, compared to 34.5% in the prior-year quarter.

SEG&A expenses for the six months ended June 30, 2017 were $0.2 million lower than the prior-year quarter, with savings realized from prior year restructuring activities being partially offset by strategic investments in support of new product development initiatives.

Operating income increased by $0.5 million for the six months ended June 30, 2017, largely due to the $0.8 million reduction in restructuring charges and $0.2 million reduction in SEG&A expenses, partially offset by a $0.5 million decrease in gross profit.

Backlog was $24.9 million at June 30, 2017 compared to $32.8 million at June 30, 2016. The decrease was driven by lower orders for public safety products.

Corporate Expenses

Corporate operating expenses for the three months ended June 30, 2017 were $7.9 million, compared to $7.2 million in the prior-year quarter. The increase was primarily driven by a $0.4 million increase in acquisition and integration-related expenses, and higher legal costs. In the prior-year quarter, the Company incurred $0.4 million in acquisition and integration-related expenses, primarily represented by professional service fees in connection with the JJE acquisition, whereas in the current-year quarter, the Company incurred $0.8 million of similar expenses in connection with the TBEI acquisition.

Corporate operating expenses for the six months ended June 30, 2017 were $13.3 million, compared to $12.5 million in the prior-year period. The increase was primarily driven by a $0.2 million increase in acquisition and integration-related expenses, as well as higher legal costs.

Seasonality of Company's Business

Certain of the Company's businesses are susceptible to the influences of seasonal factors, including buying patterns, delivery patterns and productivity influences from holiday periods and weather. In general, the Company tends to have lower sales in the first calendar quarter of each year compared to other quarters as a result of these factors.

Financial Condition, Liquidity and Capital Resources

The Company uses its cash flow from operations to fund growth and to make capital investments that sustain its operations, reduce costs, or both. Beyond these uses, remaining cash is used to pay down debt, repurchase shares, fund dividend payments and make pension contributions. The Company is also committed to pursuing additional strategic acquisitions of businesses. In the absence of significant unanticipated cash demands, we believe that the Company's existing cash balances, cash flow from operations and borrowings available under the Amended 2016 Credit Agreement, will provide funds sufficient for these purposes. The net cash flows associated with the Company's rental equipment transactions are included in cash flow from operating activities. Subsequent to the acquisition of JJE, such net cash flows may become more significant, and as such, cash flow from operating activities may not be directly comparable with amounts reported in periods prior to the acquisition.

The Company's cash and cash equivalents totaled $37.0 million and $50.7 million as of June 30, 2017 and December 31, 2016, respectively. As of June 30, 2017, $16.8 million of cash and cash equivalents was held by foreign subsidiaries. Cash and cash equivalents held by subsidiaries outside the U.S. typically are held in the currency of the country in which it is located. This cash is used to fund the operating activities of our foreign subsidiaries and for further investment in foreign operations. Generally, we consider such cash to be permanently reinvested in our foreign operations and our current plans do not demonstrate a need to repatriate such cash to fund U.S. operations. However, in the event that these funds were needed to fund U.S. operations or to satisfy U.S. obligations, they generally could be repatriated. The repatriation of these funds may then cause us to incur additional U.S. income tax expense, which would be dependent on income tax laws and other circumstances at the time any such amounts were repatriated.

Net cash of $45.8 million was generated by continuing operating activities in the six months ended June 30, 2017, compared to $3.9 million in the prior-year period. We began 2017 with a higher total primary working capital level (defined as accounts receivable and inventories, net, less accounts payable and customer deposits) than when entering the prior year, partly due to the acquisition of JJE, whose inventory levels at any point in time can fluctuate based on demand given the distribution model, as well as the advanced purchase of inventory to meet anticipated production requirements. In addition, the first half of 2017 included improved accounts receivable collections and extension of accounts payables, which were largely timing related. As a result of these factors, operating cash flow in the six months ended June 30, 2017 benefited from a reduction in primary working capital in comparison to the same period of the prior year. The operating cash flow in the prior-year period was also lower by approximately $11 million as a result of the non-cash settlement, in connection with the acquisition, of accounts receivable due from JJE.

Net cash of $271.8 million and $106.7 million was used for continuing investing activities in the six months ended June 30, 2017 and 2016, respectively. In the six months ended June 30, 2017, the Company paid an initial $269.2 million (net of cash acquired) to acquire TBEI. In the six months ended June 30, 2016, the Company paid $102.6 million to acquire Westech Vac Systems, Ltd. and JJE. Capital expenditures in the six months ended June 30, 2017 and 2016 were $2.7 million and $3.6 million, respectively. Net cash provided by discontinued investing activities totaled $88.0 million in the six months ended June 30, 2016, which represented the initial net proceeds received from the sale of Bronto.

Net cash of $213.0 million was provided by continuing financing activities in the six months ended June 30, 2017, compared with a net cash usage of $24.2 million in the prior-year period. In the six months ended June 30, 2017, in connection with the funding of the acquisition of TBEI, the Company borrowed $243.0 million against its revolving credit facility. Prior to June 30, 2017, $20.0 million of those borrowings were paid down. In addition, the Company funded cash dividends of $8.4 million and redeemed $2.4 million of stock in order to remit funds to tax authorities to satisfy employees' tax withholdings following the vesting of stock-based compensation. In the six months ended June 30, 2016, the Company borrowed $64.8 million against its revolving credit facility, funded cash dividends of $8.6 million, repurchased $33.1 million of treasury stock, and redeemed $2.6 million of stock in order to remit funds to tax authorities to satisfy employees' tax withholdings following the vesting of stock-based compensation. The Company also paid the remaining $43.4 million of term loan debt outstanding under a prior debt agreement and spent $1.1 million on fees in connection with its debt refinancing.

As described in Note 5 – Debt to the accompanying condensed consolidated financial statements, on June 2, 2017, the Company executed an amendment to the 2016 Credit Agreement which increased the borrowing capacity under the Company's credit facility to $400.0 million. The Amended 2016 Credit Agreement allows for the Borrowers to borrow in denominations of U.S. Dollars, Canadian Dollars (up to a maximum of C$100.0 million) or Euros (up to a maximum of €20.0 million).

The Company is subject to certain leverage ratio and interest coverage ratio financial covenants under the Amended 2016 Credit Agreement that are to be measured at each fiscal quarter-end. The Company was in compliance with all such covenants as of June 30, 2017.

As of June 30, 2017, there was $288.6 million of cash drawn and $18.0 million of undrawn letters of credit under the Amended 2016 Credit Agreement, with $93.4 million of net availability for borrowings. As of June 30, 2017, there were no borrowings against the Company's non-U.S. lines of credit which provide for borrowings of up to $0.2 million.

The Company anticipates that capital expenditures for 2017 will be less than $10 million.

Contractual Obligations and Off-Balance Sheet Arrangements

During the six months ended June 30, 2017, there have been no material changes in the Company's contractual obligations and off-balance sheet arrangements as described in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, of the Company's Annual Report on Form 10-K for the year ended December 31, 2016, with the exception of increased long-term debt and related estimated interest payments and purchase obligations related to the TBEI acquisition, as described below.

The Company's purchase obligations, which primarily relate to commercial chassis, vehicle bodies and other contracts in the ordinary course of business, have increased from the $71.9 million reported in the Company's Annual Report on Form 10-K as of December 31, 2016 to $116.2 million as of June 30, 2017, with $107.1 million in payments due in less than one year and $9.1 million in payments due in two to three years.

In addition, the Company's long-term debt increased from the $63.2 million reported in the Company's Annual Report on Form 10-K as of December 31, 2016 to $288.6 million as of June 30, 2017, which is payable in four to five years. The corresponding estimated contractual interest payments on long-term debt have increased from $5.0 million as of December 31, 2016 to $35.8 million as of June 30, 2017, with $10.0 million due in less than a year, $20.0 million due in two to three years, and $5.8 million due in four to five years.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect (i) the reported amounts of assets and liabilities, (ii) disclosure of contingent assets and liabilities at the date of the consolidated financial statements and (iii) the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The Company has disclosed the policies it considers to be the most critical in understanding the judgments that are involved in the preparation of the Company's consolidated financial statements and the uncertainties that could impact the Company's financial condition, results of operations or cash flow in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, of the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

As discussed in Note 2 – Acquisitions, on June 2, 2017, the Company completed the acquisition of TBEI. The Company has added a critical accounting policy related to intangible assets based on the significance of the intangible assets recognized as part of the preliminary purchase price allocation.

There were no other material changes in the Company’s critical accounting policies and estimates as described in Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations, of the Company’s Annual Report on Form 10-K for the year ended December 31, 2016.

Indefinite-lived Intangible Assets

An intangible asset determined to have an indefinite useful life is not amortized. Indefinite-lived intangible assets are tested for impairment on an annual basis at year-end, or more frequently if an event occurs or circumstances change that indicate the fair value of an indefinite-lived intangible asset could be below its carrying amount.

The impairment test consists of comparing the fair value of the indefinite-lived intangible asset with its carrying amount. An impairment loss would be recognized for the carrying amount in excess of its fair value.

Significant judgment is applied when evaluating whether an intangible asset has an indefinite useful life. In addition, for indefinite-lived intangible assets, significant judgment is applied in testing for impairment. This judgment includes developing cash flow projections, selecting appropriate discount rates, identifying relevant market comparables, and incorporating general economic and market conditions.

Although the Company believes its estimates of fair value are reasonable, actual financial results could differ from estimated financial results due to the inherent uncertainty involved in making such estimates. The use of alternative estimates and assumptions could increase or decrease the estimated fair value of the assets and potentially result in different impacts to the company's results of operations. Actual results may differ from the Company's estimates.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

See Item 7A, Quantitative and Qualitative Disclosures about Market Risk, of the Company’s Annual Report on Form 10-K for the year ended December 31, 2016. During the six months ended June 30, 2017, there have been no significant changes in our exposure to market risk, with the exception of increased market risk associated with changes in interest rates based on the increase in fair value of the Company’s debt obligations as of June 30, 2017 as compared to December 31, 2016.

Interest Rate Risk

Our debt instruments subject us to market risk associated with movements in interest rates. The fair value of the Company’s total debt obligations held at June 30, 2017 was $289.2 million. On June 2, 2017, the Company entered into an interest rate swap with a notional amount of $150.0 million, as a means of fixing the floating interest rate component on $150.0 million of its variable-rate debt. See Note 5 – Debt to the accompanying condensed consolidated financial statements for a description of our debt agreements and related derivative financial instrument. A hypothetical 100 basis point increase or decrease in variable interest rates in 2017 would increase or decrease interest expense by approximately $0.7 million in the second half of 2017, based on current debt levels.

Item 4. Controls and Procedures.

As required by Rule 13a-15 under the Exchange Act, the Company’s management, with the participation of the Company’s Chief Executive Officer and Interim Chief Financial Officer, evaluated the effectiveness of the design and operation of the Company’s disclosure controls and procedures (as defined in Rule 13a-15(e) or Rule 15d-15(e) under the Exchange Act) as of June 30, 2017. Based on that evaluation, the Company’s Chief Executive Officer and Interim Chief Financial Officer concluded that the Company’s disclosure controls and procedures were effective as of June 30, 2017.

As a matter of practice, the Company’s management continues to review and document internal control and procedures for financial reporting. From time to time, the Company may make changes aimed at enhancing the effectiveness of the controls and ensuring that the systems evolve with the business. SEC guidance permits management to omit an assessment of internal control over financial reporting for an acquired business from management’s assessment of internal control over financial reporting for a period not to exceed one year from the date of the acquisition. During the three months ended June 30, 2017, the Company completed the acquisition of TBEI. As of June 30, 2017, management has not yet fully assessed TBEI’s internal control over financial reporting. Excluding the acquisition of TBEI, there were no changes in the Company’s internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting during the three months ended June 30, 2017.

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PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

The information set forth under the heading “Legal Proceedings” in Note 8 – Commitments and Contingencies to the accompanying condensed consolidated financial statements as included in Part I of this Form 10-Q is incorporated herein by reference.

Item 1A. Risk Factors.

There have been no material changes in the Company’s risk factors as described in Item 1A, Risk Factors, of the Company’s Annual Report on Form 10-K for the year ended December 31, 2016.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Restrictions upon the Payment of Dividends

Under the terms of the Amended 2016 Credit Agreement, restricted payments, including dividends and stock repurchases, shall be permitted if (i) the Company’s leverage ratio is less than or equal to 2.50, (ii) the Company is in compliance with all other financial covenants and (iii) there are no existing defaults under the Amended 2016 Credit Agreement. If the leverage ratio is more than 2.50, the Company is still permitted to fund (i) up to $30.0 million of dividend payments, (ii) stock repurchases sufficient to offset dilution created by the issuance of equity as compensation to its officers, directors, employees and consultants and (iii) an incremental $30.0 million of other cash payments.

The Company is able to declare dividends at current levels under the restricted payment guidelines set forth above.

Purchases of Equity Securities

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs [(a)]
April 2017 (4/2/17 – 5/6/17)	—	$ —	—	$31,395,802
May 2017 (5/7/17 – 6/3/17)	—	—	—	31,395,802
June 2017 (6/4/17 – 7/1/17)	—	—	—	31,395,802

(a) On November 4, 2014, the Board authorized a stock repurchase program of up to $75.0 million of the Company’s common stock.

Item 3. Defaults upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

On August 8, 2017, the Company issued a press release announcing its financial results for the three and six months ended June 30, 2017. The full text of the second quarter financial results press release is attached hereto as Exhibit 99.1 to this Form 10-Q.

Item 6. Exhibits.

3.1	Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed April 30, 2010.
3.2	Amended and Restated By-laws of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed February 9, 2016.
10.1	Stock Purchase Agreement, dated as of May 8, 2017, by and between GenNx/TBEI Holdings, LLC and the Company. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed May 8, 2017.
10.2	First Amendment to Amended and Restated Credit Agreement, dated as of June 2, 2017, by and among the Company and certain of its foreign subsidiaries, Wells Fargo Bank, National Association, and the Lenders party thereto. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed June 2, 2017.
10.3 *	Employment Letter dated as of May 5, 2017, by and between the Company and Robert E. Fines.
10.4*	Form of Nonqualified Stock Option Award Agreement.
10.5*	Form of Performance Share Unit Award Agreement – Non-U.S.
10.6*	Form of Performance Share Unit Award Agreement – U.S.
10.7*	Form of Restricted Stock Award Agreement – U.S.
10.8*	Form of Restricted Stock Unit Award Agreement – Non-U.S.
10.9*	Performance Share Unit Award Agreement dated as of July 25, 2017, by and between the Company and Robert E. Fines.
10.10*	First Amendment to the Federal Signal Corporation 2005 Executive Incentive Compensation Plan (2010 Restatement), dated as of March 26, 2015.
10.11*	Second Amendment to the Federal Signal Corporation 2005 Executive Incentive Compensation Plan (2010 Restatement), dated as of July 24, 2017.
10.12*	First Amendment to the Federal Signal Corporation Executive Incentive Performance Plan, as amended and restated, dated as of July 24, 2017.
10.13*	First Amendment to the Federal Signal Corporation 2015 Executive Incentive Compensation Plan dated as of July 24, 2017.
31.1	CEO Certification under Section 302 of the Sarbanes-Oxley Act.
31.2	CFO Certification under Section 302 of the Sarbanes-Oxley Act.
32.1	CEO Certification of Periodic Report under Section 906 of the Sarbanes-Oxley Act.
32.2	CFO Certification of Periodic Report under Section 906 of the Sarbanes-Oxley Act.

99.1	Second Quarter Financial Results Press Release, Dated August 8, 2017.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Label Linkbase Document.
101.PRE	XBRL Taxonomy Presentation Linkbase Document.

* Management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 15(a)(3) of Form 10-K.

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SIGNATURE

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.

Federal Signal Corporation

Date: August 8, 2017 /s/ Ian A. Hudson

Ian A. Hudson

Vice President and Interim Chief Financial Officer

(Principal Financial Officer)