FEDERAL SIGNAL CORP /DE/
Form 10-K
March 05, 2014
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K
(Mark One)
þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2013
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
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $1.00 per share	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No þ
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No þ
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 shorter period that the registrant was required to submit and post such files). Yes þ No ¨
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant’s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨

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

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

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

As of June 28, 2013, the aggregate market value of voting stock held by non-affiliates was $540,780,048. For purposes of the foregoing calculation only, executive officers and directors of the registrant have been deemed to be affiliates.

As of February 28, 2014, the number of shares outstanding of the registrant’s common stock was 62,783,382.

Documents Incorporated By Reference

Portions of the registrant's definitive proxy statement for the 2014 Annual Meeting of Shareholders to be held on April 22, 2014 are incorporated by reference in Part III.

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K ("Form 10-K") is being filed by Federal Signal Corporation and its subsidiaries (referred to collectively as the "Company" herein, unless the context otherwise indicates) with the 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" or similar terminology, or the 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 cyclical nature of the Company's industrial, municipal, governmental and commercial markets; domestic and foreign governmental policy changes; restrictive debt covenants; availability of credit and third-party financing for customers; our ability to anticipate and meet customer demands for new products and product enhancements and the resulting products generating sufficient revenues to justify research and development expenses; our incurrence of restructuring and impairment charges as we continue to evaluate opportunities to restructure our business; highly competitive markets; increased product liability, warranty, recall claims, client service interruptions, and other lawsuits and claims; technological advances by competitors; disruptions in the supply of parts and components from suppliers and subcontractors; attraction and retention of key personnel; disruptions within our dealer network; work stoppages and other labor relations matters; increased pension funding requirements and expenses beyond our control; costs of compliance with environmental and safety regulations; our ability to use net operating loss ("NOL") carryovers to reduce future tax payments; charges related to goodwill; our ability to expand our business through successful future acquisitions; and unknown or unexpected contingencies or in businesses acquired by us. These risks and uncertainties include, but are not limited to, the risk factors described under Item 1A, Risk Factors as set forth in Part I, as well as those discussed else where in this report. 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 financial position or results of operations. 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-K.

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-K. 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

Item 1. Business.

Federal Signal Corporation, founded in 1901, was reincorporated as a Delaware corporation in 1969. The Company designs and manufactures a suite of products and integrated solutions for municipal, governmental, industrial, and commercial customers. The Company's portfolio of products includes sewer cleaners, vacuum trucks, street sweepers, waterblasters, safety and security systems, including technology-based products and solutions for the public safety market, and vehicle-mounted aerial platforms. In addition, we sell parts and tooling and provide service, repair, equipment rentals, and training as part of a comprehensive offering to our customer base. Federal Signal Corporation and its subsidiaries operate 11 manufacturing facilities in six countries around the world serving customers in approximately 100 countries in all regions of the world.

Narrative Description of Business

Products manufactured and services rendered by the Company are divided into three major operating segments: Environmental Solutions, Safety and Security Systems and Fire Rescue. 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.

Financial information (net sales, operating income, depreciation and amortization, capital expenditures, and total assets) concerning the Company's three operating segments for each of the three years in the period ended December 31, 2013, is included in Note 14 – Segment Information to the accompanying consolidated financial statements and is incorporated herein by reference. Information regarding the Company's discontinued operations is included in Note 11 – Discontinued Operations to the accompanying consolidated financial statements and is incorporated herein by reference.

Environmental Solutions Group

Our Environmental Solutions Group is a leading manufacturer and supplier of a full range of street sweeper and vacuum trucks and high-performance waterblasting equipment for municipal and industrial customers. We also manufacture products for the newer markets of hydro-excavation, glycol recovery and surface cleaning for utility and industrial customers. Products are sold under the Elgin®, Vactor®, Guzzler®, and Jetstream™ brand names. The Group primarily manufactures its vehicles and equipment in the United States.

Under the Elgin brand name, the Company sells a leading U.S. brand of street sweepers primarily designed for large-scale cleaning of curbed streets, parking lots and other paved surfaces utilizing mechanical sweeping, vacuum, and recirculating air technology. Vactor is a leading manufacturer of municipal combination catch basin/sewer cleaning vacuum trucks. Guzzler is a leader in industrial vacuum loaders used to manage industrial waste or recover and recycle valuable raw materials. Jetstream manufactures high pressure waterblast equipment and accessories for commercial and industrial cleaning and maintenance operations.

In addition to equipment sales, the Group is increasingly engaged in the sale of parts and tooling, service and repair, equipment rentals, and training as part of a complete offering to its customer base.

Safety and Security Systems Group

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, industrial communications, and command and municipal networked security. Specific products include vehicle lightbars and sirens, public warning sirens and public safety software. Products are sold under the Federal Signal™, Federal Signal VAMA™, Target Tech®, and Victor™ brand names. The Group operates manufacturing facilities in North America, Europe and South Africa.

Fire Rescue Group

Our Fire Rescue Group is a leading manufacturer and supplier of sophisticated, vehicle-mounted, aerial platforms for fire fighting, rescue, electric utility and industrial uses. End customers include fire departments, industrial fire services, electric utilities and maintenance rental companies for applications such as fire fighting and rescue,

transmission line maintenance, and installation and maintenance of wind turbines. The Group's telescopic/articulated aerial platforms are designed in accordance with various regulatory codes and standards, such as European Norms ("EN"), National Fire Protection Association ("NFPA")

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and American National Standards Institute (“ANSI”). In addition to equipment sales, the Group sells parts, service and training as part of a complete offering to its customer base. The Group manufactures in Finland and sells globally under the Bronto Skylift® brand name.

Marketing and Distribution

The Environmental Solutions and Fire Rescue Groups use dealer networks and direct sales to service customers generally depending on the type and location of the customer. The Environmental Solutions Group’s direct sales channel concentrates on the industrial, utility and construction market segments, while the dealer networks focus primarily on the municipal markets. The Company believes its national and global dealer networks for vehicles distinguish it from its competitors. Dealer representatives demonstrate the vehicles’ functionalities and capabilities to customers and service the vehicles on a timely basis.

The Safety and Security Systems Group sells to industrial customers through approximately 2,000 wholesalers/distributors who are supported by Company sales personnel and/or independent manufacturers’ representatives. Products are also sold to municipal and governmental customers through more than 1,900 active independent distributors as well as through original equipment manufacturers and direct sales. International sales are made through the Group’s independent foreign distributors or on a direct basis. The Company also sells comprehensive integrated warning and interoperable communications through a combination of a direct sales force and distributors.

Customers and Backlog

Approximately 36%, 28%, and 36% of the Company’s total 2013 orders were to U.S. municipal and governmental customers, U.S. commercial and industrial customers, and non-U.S. customers, respectively. No single customer accounted for 10% or more of the Company’s business.

During 2013, the Company’s U.S. municipal and governmental orders increased 2% from 2012, compared to an 8% increase in these orders in 2012 as compared to 2011, as the U.S. and global markets continued their recovery from the economic recession. The U.S. commercial and industrial orders in 2013 increased 9% from 2012, compared to a decrease of 7% in these orders in 2012 compared to 2011.

During 2013, the Company’s non-U.S. orders decreased 4% from 2012, compared to a decrease of 3% in 2012 as compared to 2011. The non-U.S. municipal and governmental market segment is similar to the U.S. municipal and governmental market segment in that it is largely dependent on tax revenues to support spending and orders may be subject to public-entity bid procedures. Of the Company's non-U.S. orders for 2013, approximately 34% were derived from Europe, 23% from Canada, 13% from the Middle East and Africa, 10% from China, and less than 10% from any other particular region.

The Company’s backlog totaled $305.8 million at December 31, 2013 compared to $318.4 million at December 31, 2012. Backlogs vary by Group due to the nature of the Company’s products and buying patterns of its customers. Environmental Solutions maintains an average backlog of three to four months of shipments, Safety and Security Systems typically experiences an average backlog of two months of shipments, and Fire Rescue normally maintains an average backlog of five months of shipments, excluding service and maintenance contracts that generally cover a period of more than one year. Production of the Company’s December 31, 2013 backlog is expected to be substantially completed during 2014.

Suppliers

The Company purchases a wide variety of raw materials from around the world for use in the manufacture of its products, although the majority of current purchases are from North American sources. To minimize risks relating to availability, price, and quality of key products and components, the Company is party to numerous strategic supplier arrangements. Although certain materials are obtained from either a single-source supplier or a limited number of suppliers, the Company has identified alternative sources to minimize the interruption of its business in the event of supply problems.

Components critical to the production of the Company’s vehicles, such as engines and hydraulic systems, are purchased from a select number of suppliers. The Company also purchases raw and fabricated steel as well as commercial chassis with certain specifications from multiple sources.

The Company believes it has adequate supplies or sources of availability of the raw materials and components necessary to meet its needs. However, there are risks and uncertainties with respect to the supply of certain raw materials that could impact their price, quality, and availability in sufficient quantities.

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Competition

Within the Environmental Solutions Group, Elgin is recognized as a market leader among several domestic sweeper competitors and differentiates itself primarily on product performance. Vactor and Guzzler both maintain a leading domestic position in their respective marketplaces by enhancing product performance with leading technology and application flexibility. Jetstream is a market leader in the in-plant cleaning segment of the U.S. waterblast industry, competing on product performance and rapid delivery.

Within specific product categories and domestic markets, the Safety and Security Systems Group companies are among the leaders with between one and four significant competitors and several additional ancillary market participants. The Group's international market position varies from leader to ancillary participant depending on the geographic region and product line. Generally, competition is intense within all of the Group's product lines, and purchase decisions are made based on competitive bidding, price, reputation, performance, and service.

Within the Fire Rescue Group, Bronto Skylift is established as a global leader for aerial platforms used in fire fighting, rescue, and industrial markets. Products for these markets typically must be certified to specific qualifications and requirements. Competitor offerings can include trailer-mounted articulated aerials and traditional fire trucks with ladders. Bronto competes on product performance, where it holds technological advantages for its certified products in its designs, materials, and production processes.

Research and Development

The Company invests in research to support development of new products and the enhancement of existing products and services. The Company believes this investment is important to maintain and/or enhance its leadership position in key markets. Expenditures for research and development by the Company were $11.0 million in 2013, $10.0 million in 2012, and $12.1 million in 2011, and were reported within selling, engineering, general and administrative ("SEG&A") expenses.

Patents and Trademarks

The Company owns a number of patents and possesses rights under others to which it attaches importance, but does not believe that its business as a whole is materially dependent upon any such patents or rights. The Company also owns a number of trademarks, which are listed within the "Narrative Description of Business" section above. We believe these trademarks are important in connection with the identification of our products and associated goodwill with customers, but no material part of the Company's business is dependent on such trademarks.

Employees

The Company employed 2,550 people in its businesses at the close of 2013. At December 31, 2013, the Company's U.S. hourly workers accounted for approximately 41% of its total workforce. Approximately 26% of the Company's U.S. hourly workers were represented by unions at December 31, 2013. We believe that our labor relations with our employees are good.

Governmental Regulation of the Environment

The Company believes it substantially complies with federal, state and local provisions that have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment. Capital expenditures in 2013 attributable to compliance with such laws were not material. The Company believes that the overall impact of compliance with environmental regulations will not have a material adverse effect on its future operations.

The Company retained an environmental consultant to conduct an environmental risk assessment at the Pearland, Texas facility. The facility, which was previously used by the Company's discontinued Pauluhn business, manufactured marine, offshore and industrial lighting products. The Company sold the facility in May 2012. While the Company has not finalized its plans, it is probable that the site will require remediation. As of December 31, 2013 and 2012, $1.4 million and $1.8 million, respectively, of reserves related to the environmental remediation of the Pearland facility are included in liabilities of discontinued operations on the consolidated balance sheet. 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 liquidity.

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Seasonality

Certain of the Company businesses are susceptible to the influences of seasonal buying or delivery patterns. The Company tends to have lower sales in the first calendar quarter compared to other quarters as a result of these influences.

Executive Officers of the Registrant

The following is a list of the Company’s executive officers, their ages, business experience and positions and offices as of February 1, 2014:

Dennis J. Martin, age 63, was appointed President and Chief Executive Officer in October 2010 and was appointed to the Board of Directors in March 2008. Mr. Martin had been an independent business consultant from 2005 to October 2010 and was the Chairman, President and Chief Executive Officer of General Binding Corporation from 2001 to 2005.

Bryan L. Boettger, age 61, was appointed President of Public Safety Systems in May 2011. Mr. Boettger was Vice President of Operations for the Safety and Security Systems Group from 2010 to 2011 and Interim Vice President/General Manager Public Safety Systems and President of Emergency Products Division from 2006 to 2009.

Julie A. Cook, age 52, was appointed Vice President, Human Resources in September 2012. Ms. Cook served as Johnson Controls, Inc.’s Director of Human Resources, Building Efficiency Programs and then Vice President of Human Resources, Global Manufacturing, Supply Chain and Communications, during 2010 through 2012. Ms. Cook previously served as the Company’s Environmental Solutions Group Vice President of Human Resources with responsibility for Corporate Human Resources from 2008 through 2010. Ms. Cook was Group Vice President of Human Resources for the Environmental Solutions Group from 2001 to 2007.

Brian S. Cooper, age 57, was appointed Senior Vice President and Chief Financial Officer in May 2013. Prior to joining the Company, Mr. Cooper served as Chief Financial Officer of Westell Technologies, Inc. from 2009 to 2013. Prior to Westell, Mr. Cooper served as Chief Financial Officer of Fellowes, Inc. from 2007 to 2009 and as Senior Vice President and Treasurer of United Stationers Inc. from 2001 to 2007. Prior to joining United Stationers, Mr. Cooper served as Treasurer of Burns International Services Corporation, and held various financial positions during his 12 year tenure with Amoco Corporation.

Ian A. Hudson, age 37, was appointed Vice President and Corporate Controller in August 2013. Prior to joining the Company, Mr. Hudson most recently served as Director of Accounting – Latin America and Asia Pacific at Groupon, Inc. from June 2012 to August 2013. Prior to that role, Mr. Hudson worked at Ernst & Young, LLP from 1998 to 2012, most recently as Senior Audit Manager.

Esa Peltola, age 62, was appointed President of Bronto Skylift Oy Ab in July 2007. Mr. Peltola was Managing Director of Bronto Skylift from 1998 to 2007.

Jennifer L. Sherman, age 49, was appointed Chief Administrative Officer, Senior Vice President, General Counsel and Secretary in October 2010. Ms. Sherman was Senior Vice President, Human Resources, General Counsel and Secretary from April 2008 to July 2010. Ms. Sherman was Vice President, General Counsel and Secretary from 2004 to March 2008 and was Deputy General Counsel and Assistant Secretary from 1998 to 2004.

These officers hold office until the next annual meeting of the Board of Directors following their election and until their successors have been elected and qualified.

There are no family relationships among any of the foregoing executive officers.

Item 1A. Risk Factors.

We may occasionally make forward-looking statements and estimates such as forecasts and projections of our future performance or statements of our plans and objectives. These forward-looking statements may be contained in, but are not limited to, filings with the SEC, including this Form 10-K, press releases made by us, and oral statements made by our officers. Actual results could differ materially from those contained in such forward-looking statements. Important factors that could cause our actual results to differ from those contained in such forward-looking statements include, but are not limited to, the risks described below.

Our financial results are subject to U.S. economic uncertainty.

In 2013, we generated approximately 65% of our net sales in the U.S. Our ability to be profitable depends heavily on varying conditions in the U.S. governmental and municipal markets and the overall U.S. economy. The industrial markets in which we compete are subject to considerable cyclicality, and move in response to cycles in the overall business environment. Many of

our customers are municipal government agencies, and as a result, we are dependent on municipal government spending. Spending by our municipal customers can be affected by local political circumstances, budgetary constraints and other factors. The U.S. government and municipalities depend heavily on tax revenues as a source of their spending and accordingly, there is a historical correlation of a one or two year lag between the overall strength of the U.S. economy and our sales to the U.S. government and municipalities. Therefore, downturns in the U.S. economy are likely to result in decreases in demand for our products. During previous economic downturns, we experienced decreases in sales and profitability, and we expect our business to remain subject to similar economic fluctuations in the future.

We have international operations that are subject to foreign economic and political uncertainties and foreign currency rate fluctuations.

Our business is subject to fluctuations in demand and changing international economic and political conditions that are beyond our control. In 2013, 35% of our net sales were generated outside the U.S. and we expect a significant portion of our revenues to come from international sales for the foreseeable future. Operating in the international marketplace exposes us to a number of risks, including abrupt changes in foreign government policies and regulations, restrictive domestic and international trade regulations, U.S. laws applicable to foreign operations, such as the Foreign Corrupt Practices Act (the “FCPA”) and the U.K. Bribery Act, political and economic instability, local labor market conditions, the imposition of foreign tariffs and other trade barriers and, in some cases, international hostilities. To the extent that our international operations are affected by unexpected and adverse foreign economic and political conditions, we may experience project disruptions and losses which could significantly reduce our revenues and profits. In addition, penalties for any such non-compliance with laws applicable to international business and trade, such as the FCPA, could negatively impact our business.

Some of our contracts are denominated in foreign currencies, which results in additional risk of fluctuating currency values and exchange rates, hard currency shortages and controls on currency exchange. Changes in the value of foreign currencies over the longer term could increase our U.S. dollar costs for, or reduce our U.S. dollar revenues from, our foreign operations. Any increased costs or reduced revenues as a result of foreign currency fluctuations could adversely affect our profits.

We are subject to a number of restrictive debt covenants.

In March 2013, we entered into a credit facility for a period of five years ending March 2018. The proceeds from this credit facility were used to refinance the majority of the Company’s then existing indebtedness, including the Company’s secured credit facility and term loan. The new credit facility contains certain restrictive debt covenants and other customary events of default. Our ability to comply with these restrictive covenants may be affected by the other factors described in this “Risk Factors” section and other factors outside of our control. Failure to comply with one or more of these restrictive covenants may result in an event of default. Upon an event of default, if not cured by us or waived by our lenders, our lenders may declare all amounts outstanding as due and payable. If our current lenders thereby accelerate the maturity of our indebtedness, we may not have sufficient capital available at that time to pay the amounts due to our lenders on a timely basis. In addition, these restrictive covenants may prevent us from engaging in transactions that benefit us, including responding to changing business and economic conditions and taking advantage of attractive business opportunities.

The execution of our growth strategy is dependent upon the continued availability of credit and third-party financing arrangements for our customers.

Economic downturns result in tighter credit markets, which could adversely affect our customers’ ability to secure financing or to secure financing at favorable terms or interest rates necessary to proceed or continue with purchases of our products and services. Our customers’ or potential customers’ inability to secure financing for projects could result in the delay, cancellation or downsizing of new purchases or the suspension of purchases already under contract, which could cause a decline in the demand for our products and services and negatively impact our revenues and earnings.

Our efforts to develop new products and services or enhance existing products and services involve substantial research, development and marketing expenses, and the resulting new or enhanced products or services may not generate sufficient revenues to justify the expense.

We place a high priority on developing new products and services, as well as enhancing our existing products and services. As a result of these efforts, we may be required to expend substantial research, development and marketing resources, and the time and expense required to develop a new product or service or enhance an existing product or service are difficult to predict. We may not succeed in developing, introducing or marketing new products or services or product or service enhancements. In addition, we cannot be certain that any new or enhanced product or service will generate sufficient revenue to justify the expense and resources devoted to this product diversification effort.

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We could incur restructuring and impairment charges as we continue to evaluate opportunities to restructure our business and rationalize our manufacturing operations in an effort to optimize our cost structure.

We continue to evaluate opportunities to restructure our business and rationalize our manufacturing operations in an effort to optimize our cost structure. These actions could result in significant charges which could adversely affect our financial condition and results of operations. Future actions could result in restructuring and related charges, including but not limited to impairments, employee termination costs and charges for pension and other postretirement contractual benefits and pension curtailments that could be significant. We have a substantial amount of goodwill, which is subject to periodic impairment analysis and review. Identifying and assessing whether impairment indicators exist, or if events or changes in circumstances have occurred, including market conditions, operating results, competition and general economic conditions, requires significant judgment. Any of the above future actions could result in charges that could have an adverse effect on our financial condition and results of operations.

We operate in highly competitive markets.

The markets in which we operate are highly competitive. Many of our competitors have significantly greater financial resources than we do. The intensity of this competition, which is expected to continue, can result in price discounting and margin pressures throughout the industry and may adversely affect our ability to increase or maintain prices for our products. In addition, certain of our competitors may have lower overall labor or material costs. In addition, our contracts with municipal and other governmental customers are in some cases awarded and renewed through competitive bidding. We may not be successful in obtaining or renewing these contracts, which could be harmful to our business and financial performance.

We may incur material losses and costs as a result of product liability, warranty, recall claims, client service interruption or other lawsuits or claims that may be brought against us.

We are exposed to product liability and warranty claims in the normal course of business in the event that our products actually or allegedly fail to perform as expected, or the use of our products results or is alleged to result in bodily injury and/or property damage. For example, we have been sued by firefighters seeking damages claiming that exposure to our sirens has impaired their hearing and that the sirens are, therefore, defective. In addition, we are subject to other claims and litigation from time to time as further described in the notes to our consolidated financial statements. We could experience material warranty or product liability costs in the future and incur significant costs to defend ourselves against these claims. We carry insurance and maintain reserves for product liability claims. However, we cannot assure that our insurance coverage will be adequate if such claims do arise, and any defense costs and liability not covered by insurance could have a material adverse impact on our financial position and results of operations. A future claim could involve the imposition of punitive damages, the award of which, pursuant to state laws, may not be covered by insurance. In addition, warranty and certain other claims are not typically covered by insurance. Any product liability or warranty issues may adversely impact our reputation as a manufacturer of high quality, safe products and may have a material adverse effect on our business.

Failure to keep pace with technological developments may adversely affect our operations.

We are engaged in an industry which will be affected by future technological developments. The introduction of products or processes utilizing new technologies could render our existing products or processes obsolete or unmarketable. Our success will depend upon our ability to develop and introduce on a timely and cost-effective basis new products, applications and processes that keep pace with technological developments and address increasingly sophisticated customer requirements. We may not be successful in identifying, developing and marketing new products, applications and processes and product or process enhancements. We may experience difficulties that could delay or prevent the successful development, introduction and marketing of product or process enhancements or new products, applications or processes. Our products, applications or processes may not adequately meet the requirements of the marketplace and achieve market acceptance. Our business, financial condition and results of operations could be materially and adversely affected if we were to incur delays in developing new products, applications or processes or product or process enhancements, or if our products do not gain market acceptance.

The inability to obtain raw materials, component parts, and/or finished goods in a timely and cost-effective manner from suppliers would adversely affect our ability to manufacture and market our products.

We purchase from suppliers raw materials and component parts to be used in the manufacturing of our products. In addition, we purchase certain finished goods from suppliers. Changes in our relationships with suppliers, shortages, production delays, regulatory restrictions or work stoppages by the employees of such suppliers could have a material adverse effect on our ability to timely manufacture and market products. In addition, increases in the costs of purchased raw materials, component parts or finished goods could result in manufacturing interruptions, delays, inefficiencies or our inability to market products. In addition, our profit margins would decrease if prices of purchased raw materials, component parts or finished goods increase and we are unable to pass on those increases to our customers.

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Our ability to operate effectively could be impaired if we fail to attract and retain key personnel.

Our ability to operate our businesses and implement our strategies depends in part on the efforts of our executive officers and other key employees. In addition, our future success will depend on, among other factors, our ability to attract and retain qualified personnel, including finance personnel, research professionals, technical sales professionals and engineers. The loss of the services of any key employee or the failure to attract or retain other qualified personnel could have a material adverse effect on our business or business prospects.

Disruptions within our dealer network could adversely affect our business.

We rely on a national and global dealer network to market certain of our products and services. A disruption in our dealer network within a specific local market could have an adverse impact on our business within the affected market. In addition, the loss or termination of a significant number of dealers could cause difficulties in marketing and distributing our products and have an adverse effect on our business, financial condition or results of operations.

Our business may be adversely impacted by work stoppages and other labor relations matters.

We are subject to risk of work stoppages and other labor relations matters because a portion of our workforce is unionized. As of December 31, 2013, approximately 26% of our U.S. hourly workers were represented by labor unions and were covered by collective bargaining agreements. Many of these agreements include provisions that limit our ability to realize cost savings. Any strikes, threats of strikes, or other resistance in connection with the negotiation of new labor agreements or otherwise could materially adversely affect our business as well as impair our ability to implement further measures to reduce structural costs and improve production efficiencies.

Our pension funding requirements and expenses are affected by certain factors outside of our control, including the performance of plan assets, the discount rate used to value liabilities, actuarial assumptions and experience and legal and regulatory changes.

Our funding obligations and pension expense for our defined benefit pension plans are driven by the performance of assets set aside in trusts for these plans, the discount rate used to value the plans' liabilities, actuarial assumptions and experience and legal and regulatory funding requirements. Changes in these factors could have an adverse impact on our results of operations, liquidity or shareholders' equity. In addition, a portion of our pension plan assets are invested in equity securities, which can experience significant declines if financial markets weaken. The level of the funding of our defined benefit pension plan liabilities was approximately 88% as of December 31, 2013. Our future pension expenses and funding requirements could increase significantly due to the effect of adverse changes in the discount rate, asset values, or the estimated expected return on plan assets. In addition, the Company could be legally required to make increased contributions to the pension plans, and these contributions could be material and negatively affect our cash flow.

The costs associated with complying with environmental and safety regulations could lower our margins.

We, like other manufacturers, continue to face heavy governmental regulation of our products, especially in the areas of the environment and employee health and safety. Complying with environmental and safety requirements has added and will continue to add to the cost of our products, and could increase the capital required to support our business. While we believe that we are in compliance in all material respects with these laws and regulations, we may be adversely impacted by costs, liabilities or claims with respect to our operations under existing laws or those that may be adopted. These requirements are complex, change frequently and have tended to become more stringent over time. Therefore, we could incur substantial costs, including cleanup costs, fines and civil or criminal sanctions as a result of violation of, or liabilities under, environmental laws and safety regulations.

Our ability to use NOL carryovers to reduce future tax payments could be negatively impacted if there is a change in our ownership or a failure to generate sufficient taxable income.

Presently, the only U.S. federal NOLs we have remaining are from previously acquired companies and hence are limited to specific annual amounts as required by Section 382 of the Internal Revenue Code of 1986, as amended ("Section 382"). Additionally, if an ownership change, as defined in Section 382, occurs with respect to our capital stock, our ability to use these NOLs would be additionally limited to more restrictive specific annual amounts. Generally, an ownership change occurs if certain persons or groups increase their aggregate ownership by more than

50% of our total capital stock in a three-year period. If an ownership change occurs, our ability to use domestic NOLs to reduce taxable income is generally limited to an annual amount based on the fair market value of our stock immediately prior to the ownership change multiplied by the long-term tax-exempt interest rate. NOLs that exceed the Section 382 limitation in any year continue to be allowed as carryforwards for the remainder of the 20-year carryforward period and can be used to offset taxable income for years within the carryover period

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subject to the limitation in each year. Our use of new NOLs arising after the date of an ownership change would not be affected. If more than a 50% ownership change were to occur, use of our NOLs to reduce payments of federal taxable income may be deferred to later years within the 20-year carryover period; however, if the carryover period for any loss year expires, the use of the remaining NOLs for the loss year will be prohibited. If we should fail to generate a sufficient level of taxable income prior to the expiration of the NOL carryforward periods, then we will lose the ability to apply the NOLs as offsets to future taxable income.

An impairment in the carrying value of goodwill could negatively affect our consolidated financial position and results of operations.

Goodwill is recorded at fair value at the time of acquisition and is not amortized, but is reviewed for impairment at least annually or more frequently if impairment indicators arise. In evaluating the potential for impairment of goodwill, we make assumptions regarding future operating performance, business trends, and market and economic conditions. Such analyses further require us to make certain assumptions about our sales, operating margins, growth rates, and discount rates. There are inherent uncertainties related to these factors and in applying these factors to the assessment of goodwill recoverability. Goodwill reviews are prepared using estimates of the fair value of reporting units, which incorporate estimates of the present value of future discounted cash flows. We could be required to evaluate the recoverability of goodwill prior to the annual assessment if we experience disruptions to the business, unexpected significant declines in operating results, a divestiture of a significant component of our business, or market capitalization declines.

If the future operating performance of our reporting units is not consistent with our assumptions, we could be required to record non-cash impairment charges. Impairment charges could substantially affect our reported earnings in the periods such charges are recorded. As of December 31, 2013, total consolidated goodwill was approximately 42% of total consolidated assets.

We may be unsuccessful in our future acquisitions, if any, which may have an adverse effect on our business.

Our long-term strategy includes expanding into adjacent markets through selective acquisitions of companies, or of complementary products and services, that could enhance our global market position and broaden our product offerings. This strategy may involve the acquisition of companies that, among other things, enable us to build on our existing strength in a market or that give us access to proprietary products and services that are strategically valuable or allow us to leverage our distribution channels. In connection with this strategy, we could face certain risks and uncertainties in addition to those we face in the day-to-day operations of our business. We also may be unable to identify suitable targets for acquisition or make acquisitions at favorable prices. If we identify a suitable acquisition candidate, our ability to successfully implement the acquisition would depend on a variety of factors, including our ability to obtain financing on acceptable terms. In addition, our acquisition activities could be disrupted by overtures from competitors for the targeted companies, governmental regulation, and rapid developments in our industry that decrease the value of a target's products or services.

Acquisitions involve risks, including those associated with the following:

- integrating the operations, financial reporting, disparate systems and processes and personnel of acquired companies;
- managing geographically dispersed operations;
- diverting management's attention from other business concerns;
- entering markets or lines of business in which we have either limited or no direct experience; and
- potentially losing key employees, customers and strategic partners of acquired companies.

We also may not achieve anticipated revenue and cost benefits. Acquisitions may not be accretive to our earnings and may negatively impact our results of operations as a result of, among other things, the incurrence of debt, write-offs of goodwill and amortization expenses of other intangible assets. In addition, future acquisitions could result in dilutive issuances of equity securities.

Businesses acquired by us may have liabilities which are not known to us.

We may assume liabilities in connection with the acquisition of businesses. There may be liabilities that we fail or are unable to discover in the course of performing due diligence investigations on the acquired businesses. In these

circumstances, we cannot assure that our rights to indemnification from sellers of the acquired businesses to us will be sufficient in amount, scope or duration to fully offset the possible liabilities associated with the businesses or property acquired. Any such liabilities, individually or in the aggregate, could have a material adverse effect on our business.

Item 1B. Unresolved Staff Comments.

None.

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Item 2. Properties.

As of December 31, 2013, the Company utilized five principal manufacturing plants located throughout North America, as well as five in Europe, and one in South Africa. In total, the Company devoted approximately 1.0 million square feet to manufacturing and 0.5 million square feet to service, warehousing, and office space as of December 31, 2013. Of the total square footage, approximately 44% is devoted to the Safety and Security Systems Group, 14% to the Fire Rescue Group, and 42% to the Environmental Solutions Group. Approximately 22% of the total square footage is owned by the Company with the remaining 78% being leased.

All of the Company's properties, as well as the related machinery and equipment, are considered to be well-maintained, suitable, and adequate for their intended purposes. In the aggregate, these facilities are of sufficient capacity for the Company's current business needs.

Item 3. Legal Proceedings.

The information concerning the Company's legal proceedings included in Note 13 – Legal Proceedings to the accompanying consolidated financial statements is incorporated herein by reference.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

(a) Market Information

The Company's common stock is listed and traded on the New York Stock Exchange ("NYSE") under the symbol FSS. The following table presents a summary of the high and low market price per share of our common stock for each quarter of 2013 and 2012:

Year Ended December 31, 2013	High	Low	Year Ended December 31, 2012	High	Low
1st Quarter	$8.63	$7.30	1st Quarter	$5.94	$3.73
2nd Quarter	9.19	7.25	2nd Quarter	6.00	4.47
3rd Quarter	13.05	8.80	3rd Quarter	6.69	4.85
4th Quarter	15.89	12.53	4th Quarter	7.63	5.08

(b) Holders

As of February 28, 2014, there were 1,969 holders of record of the Company's common stock.

(c) Dividends

The Company did not declare any dividends during 2013 or 2012, and accordingly, no dividends were paid in 2013. The payment of future dividends is at the discretion of the Company's Board of Directors and will depend, among other things, upon future earnings and cash flows, capital requirements, the Company's general financial condition, general business conditions and other factors.

Under the Company's $225.0 million senior secured credit facility dated March 13, 2013 (the "Senior Secured Credit Facility"), dividends are permitted only if the following conditions are met:

- No default or event of default shall exist or shall result from such dividend payment;
- The leverage ratio (consolidated total indebtedness to consolidated EBITDA, as defined therein) of the Company and its subsidiaries shall be, for the trailing 12-month period ending on the date of distribution, less than 3.25; and
- The Company is in compliance with the quarterly consolidated total leverage ratio and consolidated fixed charge coverage ratio, as defined therein.

A complete list of the terms and conditions can be found in the Senior Secured Credit Facility, which has been filed with the SEC and is incorporated by reference as an exhibit to this Form 10-K.

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(d) Securities Authorized for Issuance under Equity Compensation

Information concerning the Company's equity compensation plans is included under Item 12 of Part III of this Form 10-K.

(e) Performance Graph

The following graph compares the cumulative five-year total return to stockholders on Federal Signal Corporation's common stock relative to the cumulative total returns of the Russell 2000 index, the S&P Midcap 400 index, and the S&P Industrials index. The graph assumes that the value of the investment in the Company's common stock, and in each index, was $100 on December 31, 2008 and assumes reinvestment of all dividends through December 31, 2013.

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	As of December 31,					
	2008	2009	2010	2011	2012	2013
Federal Signal Corporation	$100.00	$76.40	$90.19	$54.56	$100.05	$192.60
Russell 2000	100.00	127.17	161.32	154.59	179.86	249.69
S&P Midcap 400	100.00	137.38	173.98	170.96	201.53	269.04
S&P Industrials	100.00	120.93	153.26	152.35	175.73	247.22

The stock price performance included in this graph is not necessarily indicative of future stock price performance. Notwithstanding anything set forth in any of our previous filings under the Securities Act or the Exchange Act, which might be incorporated into future filings in whole or part, including this Form 10-K, the preceding performance graph shall not be deemed incorporated by reference into any such findings.

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Item 6. Selected Financial Data.

The following table summarizes selected financial information of the Company as of and for each of the five years in the period ended December 31, 2013:

($ in millions, except per share data)	2013	2012	2011	2010	2009
Results of Operations:					
Net sales	$851.3	$803.2	$688.7	$633.1	$685.4
Operating income (b) (c) (d) (e)	70.6	51.5	33.2	12.4	29.9
Income (loss) from continuing operations (b) (c) (d) (e)	160.2	22.0	13.1	(74.1)	16.2
Income (loss) from discontinued operations and disposal, net of tax	(0.2)	(49.5)	(27.3)	(101.6)	6.9
Net income (loss) (b) (c) (d) (e)	160.0	(27.5)	(14.2)	(175.7)	23.1
Financial Position:					
Capital expenditures	$17.0	$13.0	$13.5	$11.3	$14.6
Depreciation and amortization	14.2	13.2	13.0	11.4	11.1
Total assets	644.8	613.2	706.7	764.5	744.5
Total debt (a)	92.1	157.8	222.2	262.0	201.7
Common Stock Data:					
Diluted earnings (loss) per share — Continuing operations	$2.53	$0.35	$0.21	$(1.29)	$0.33
Cash dividends per share	—	—	—	0.24	0.24
Weighted average shares outstanding — Diluted (in millions)	63.2	62.7	62.2	57.6	48.6
Performance Measures:					
Operating margin	8.3 %	6.4 %	4.8 %	2.0 %	4.4 %
Debt to adjusted EBITDA ratio (f)	1.1	2.4	4.8	11.0	4.9
Other Data:					
Orders	$836.8	$826.3	$831.4	$645.1	$578.0
Backlog	305.8	318.4	295.2	158.1	155.6

(a) Includes short-term borrowings, current portion of long-term borrowings, and capital lease obligations of $7.4 million, $5.0 million, $9.1 million, $77.7 million, and $41.9 million, respectively.

(b) 2013 operating income includes restructuring charges of $0.7 million. 2013 income from continuing operations includes the effects of the restructuring charges, as well as $8.7 million of debt settlement charges and $116.2 million of valuation allowance release. The Company's determination to release the valuation allowance on domestic deferred tax assets was based on a qualitative and quantitative analysis of current and expected domestic earnings, industry and market trends, tax planning strategies, and general business risks, that resulted in a more likely than not conclusion of being able to realize a significant portion of our U.S. deferred tax assets. In the fourth quarter of 2013, the Company also executed a tax planning strategy that resulted in the release of an additional $6.7 million of valuation allowance that was previously recorded against the Company’s foreign tax credits, which would have begun to expire in 2015.

(c) 2012 operating income includes restructuring charges of $1.4 million. 2012 income from continuing operations includes the effects of the restructuring charges, as well as $3.5 million of debt settlement charges.

(d) 2010 operating income includes $3.9 million in acquisition and integration related costs associated with the Federal Signal Technologies (“FSTech”) Group, which was subsequently discontinued in 2012 and $10.0 million of net costs associated with the firefighter hearing loss litigation. 2010 income from continuing operations includes the effects of the acquisition and integration related costs, hearing loss litigation costs and $4.4 million of restructuring costs. In addition, the Company recorded a $76.0 million valuation allowance on domestic deferred tax assets.

(e) 2009 operating income includes $4.7 million of net costs associated with the firefighter hearing loss litigation.

(f) The ratio of debt to adjusted EBITDA represents total debt divided by the trailing 12-month total of income from continuing operations before interest expense, debt settlement charges, other expense, income tax provision, and

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depreciation and amortization expense. The Company uses the ratio of total debt to adjusted EBITDA as one measure of its long-term financial stability. The Company uses the ratio to calibrate the magnitude of its debt and its debt capacity against adjusted EBITDA, which is used as an operating performance measure. We believe that investors use a version of this ratio in a similar manner. In addition, financial institutions (including the Company’s lenders) use the ratio in connection with debt agreements to set pricing and covenant limitations. For these reasons, the Company believes that the ratio is a meaningful metric to investors in evaluating the Company’s long term financial performance and stability. Other companies may use different methods to calculate total debt to EBITDA. The following table summarizes the Company’s ratio of total debt to adjusted EBITDA, and reconciles income from continuing operations to adjusted EBITDA as of and for each of the five years in the period ended December 31, 2013:

	For the Years Ended December 31,				
($ in millions)	2013	2012	2011	2010	2009
Total debt	$92.1	$157.8	$222.2	$262.0	$201.7
Income from continuing operations	$160.2	$22.0	$13.1	$(74.1)	$16.2
Add:					
Interest expense	8.8	21.4	16.4	10.2	11.5
Debt settlement charges	8.7	3.5	—	—	—
Other expense (income), net	0.1	0.7	0.2	1.2	(1.2)
Income tax (benefit) expense	(107.2)	3.9	3.5	75.1	3.4
Depreciation and amortization	14.2	13.2	13.0	11.4	11.1
Adjusted EBITDA	$84.8	$64.7	$46.2	$23.8	$41.0
Total debt to adjusted EBITDA ratio	1.1	2.4	4.8	11.0	4.9

The selected financial data set forth above should be read in conjunction with the Company’s consolidated financial statements, including the notes thereto, and management's discussion and analysis of financial condition and results of operations, included under Item 8 of Part II of this Form 10-K and Item 7 of Part II of this Form 10-K, respectively.

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Item 7. 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 shall be read together with, the consolidated financial statements and the accompanying notes contained in this Form 10-K. Information in MD&A is intended to assist the reader in obtaining an understanding of the consolidated financial statements, information about 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 how certain accounting principles affect the Company's consolidated financial statements.

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, (ii) safety, security, and communication equipment, and (iii) vehicle-mounted, aerial platforms for fire fighting, rescue, electric utility, and industrial uses. We also are a designer and supplier of technology-based products and services for the public safety market. In addition, we sell parts and tooling and provide service, repair, equipment rentals, and training as part of a comprehensive offering to our customer base. We operate 11 manufacturing facilities in six countries around the world and provide our products and integrated solutions to municipal, governmental, industrial, and commercial customers in approximately 100 countries in all regions of the world.

As described in Item 1 of Part I of this Form 10-K, the Company's business units are organized and managed in three operating segments: Environmental Solutions Group, Safety and Security Systems Group, and Fire Rescue Group.

In 2013, the Company continued to focus on executing against its business strategy, which resulted in strong improvement in operating earnings. Despite global economic challenges, the Company looked to achieve the following objectives in 2013:

- Refinance the Company's balance sheet;
- Profitably grow the business organically;
- Diversify our customer base;
- Stabilize and improve profitability in our municipal-based businesses;
- Improve manufacturing efficiencies; and
- Drive talent development and succession management.

The Company assesses achievement against these objectives in 2013 as follows:

Refinance the Company's Balance Sheet

- We completed our refinancing in March 2013, and our businesses now stand on the firm foundation of a healthy balance sheet.
- We continue to generate cash from our improved performance — cash flow provided by continuing operations for the year ended December 31, 2013 was $80.3 million, or a $31.1 million increase over 2012.
- The cash generated from operations has helped to significantly reduce our debt balances — total debt at December 31, 2013 was $92.1 million, and was down 42% from $157.8 million at December 31, 2012.
- Our interest expense is down significantly — interest expense for the year ended December 31, 2013 was $8.8 million, and was down 59% from $21.4 million in the prior year.
- Our interest rate on long-term borrowings is under 3%, as compared to an interest rate of 12% at the end of 2012.
- Our debt leverage is 1.1 times adjusted EBITDA, compared with 2.4 times adjusted EBITDA in 2012.
- With our new capital structure, we have the liquidity and flexibility that we need to support our businesses and invest for profitable growth. At December 31, 2013, we had $103.6 million of net availability for borrowings under our domestic revolving credit facility, which was up significantly from $25.7 million at December 31, 2012.
- Our progress also provides flexibility to consider funding dividends.

Profitably Grow the Business Organically

- We increased net sales by $48.1 million, or 6%, to $851.3 million, from $803.2 million in 2012
- We improved operating income by $19.1 million, or 37%, to $70.6 million from $51.5 million in 2012.
-

We made a number of targeted investments and organizational changes, including creating the new position of Vice President, Business Development and Innovation. This position will work closely with our marketing and engineering teams to assist with innovation initiatives and new product development processes.

- We are in the process of implementing further capacity expansion within our Environmental Solutions Group businesses to meet customer demand and support growth. This includes the addition of new production lines,

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primarily within existing facilities. We have also leased a modest additional facility to supplement capacity, efficiency, and product development at one of our businesses with high growth opportunities. These investments are targeted to our businesses with the best opportunities to drive our organic growth.

Diversify Customer Base

- Historically, 60% or more of our domestic net sales were derived from municipal markets. While municipalities will continue to be important customers, our organic and acquisition growth initiatives generally will focus on expanding our industrial customer base. Industrial markets offer more promise to further improve our operating margins while reducing earnings volatility over the longer term.
- In 2013, U.S. industrial orders grew at a faster rate than U.S. municipal orders, with industrial orders increasing by 8.6% compared with prior year levels. Orders from our U.S. municipal customer base were up 1.7% from 2012.

Stabilize and Improve Profitability in Municipal Based Businesses and Improve Manufacturing Efficiencies

- Operating margin improved from 6.4% in 2012 to 8.3% in 2013.
- We reduced primary working capital (defined as accounts receivable and inventories, net, less accounts payable and customer deposits) by $7.5 million, or 5%, during 2013.
- We also continue to focus on reducing the break-even levels and product costs in our municipal based businesses and to improve manufacturing efficiencies within all of our businesses. We started our 80/20 initiatives three years ago, and they have been a critical part of the margin improvement in our businesses.
- Steps taken during 2013 include moving product lines and welding of small components between Environmental Solutions Group facilities to maximize capacity, significant reorganization at a large manufacturing facility within our Fire Rescue Group, targeted capital investments in laser-cutting machinery and paint systems in our plants, and the completion of the last implementation of our Enterprise Resource Planning (“ERP”) system at our Safety and Security Systems Group, providing for an integrated North American platform. As we continue to eliminate low-value activities and products, and become more efficient with others, we can reassign resources to further focus on our growth initiatives.
- Our 80/20 initiatives also focus on selective improvement in pricing of our products and services to better capture the value-add that we create.

Drive Talent Development and Succession Management

- We continue to focus on the development of our people; in 2013, we continued to refine our collaborative, comprehensive talent development assessment process which resulted in specific development actions for all employees reviewed.
- We made key additions to the management team, including positions within our financial departments at Corporate and our Fire Rescue Group, and in support of our innovation and engineering efforts.
- We have made some important internal reassignments in engineering, marketing, and other disciplines to put key talent where it can best help us succeed. These changes will continue, emerging from both our business strategies and the talent development and succession management processes that we have implemented this year.

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Results of Operations

The following table summarizes our consolidated statements of operations and illustrates the key financial indicators used to assess our consolidated financial results:

($ in millions, except per share data)	For the Years Ended December 31, 2013	2012	2011	Change 2013 vs. 2012	2012 vs. 2011
Net sales	$851.3	$803.2	$688.7	$48.1	$114.5
Cost of sales	646.2	613.4	533.3	32.8	80.1
Gross profit	205.1	189.8	155.4	15.3	34.4
Selling, engineering, general and administrative expenses	133.8	136.9	122.2	(3.1)	14.7
Restructuring charges	0.7	1.4	—	(0.7)	1.4
Operating income	70.6	51.5	33.2	19.1	18.3
Interest expense	8.8	21.4	16.4	(12.6)	5.0
Debt settlement charges	8.7	3.5	—	5.2	3.5
Other expense, net	0.1	0.7	0.2	(0.6)	0.5
Income before income taxes	53.0	25.9	16.6	27.1	9.3
Income tax benefit (expense)	107.2	(3.9)	(3.5)	111.1	(0.4)
Income from continuing operations	160.2	22.0	13.1	138.2	8.9
Loss from discontinued operations and disposal, net of tax	(0.2)	(49.5)	(27.3)	49.3	(22.2)
Net income (loss)	$160.0	$(27.5)	$(14.2)	$187.5	$(13.3)
Other data:					
Operating margin	8.3%	6.4%	4.8%	1.9%	1.6%
Diluted earnings per share — Continuing operations	$2.53	$0.35	$0.21	$2.18	$0.14
Total orders	836.8	826.3	831.4	10.5	(5.1)
Backlog	305.8	318.4	295.2	(12.6)	23.2
Depreciation and amortization	14.2	13.2	13.0	1.0	0.2

Year ended December 31, 2013 vs. year ended December 31, 2012

Net sales

Net sales increased by $48.1 million for the year ended December 31, 2013. In our Environmental Solutions Group, higher vacuum truck and sewer cleaner shipments of $5.9 million and $30.4 million, respectively, contributed to a $46.2 million net sales increase. The net sales improvement also included the effects of higher shipments of other product lines and improved pricing. Our vacuum truck and municipal sewer cleaner sales continue to exceed prior-year levels largely due to increased production capacity. Net sales in our Fire Rescue Group improved by $3.3 million, or 2%, benefiting from the effects of favorable foreign currency impacts and favorable product mix, offset by a reduction in unit volumes. Net sales within our Safety and Security Systems Group were down $1.4 million compared to the prior year.

Cost of sales

Cost of sales increased by $32.8 million for the year ended December 31, 2013. The increase was predominantly attributable to Environmental Solutions Group, where cost of sales increased by $28.6 million, largely due to increased unit volumes of $31.1 million, and $0.8 million of additional warranty expense, partially offset by improved pricing and favorable product mix impacts of $3.4 million. Cost of sales in our Safety and Security Systems Group increased by $1.6 million, despite slightly lower sales, primarily due to costs associated with implementation of new ERP software within the U.S. operations, including inefficiencies experienced during the implementation. In our Fire Rescue Group, cost of sales were up $2.6 million, primarily due to unfavorable foreign currency impacts of $3.5 million and product mix of $0.4 million, offset by a $1.3 million reduction in cost of sales due to lower unit volumes.

Gross profit

Gross profit increased by $15.3 million, or 8%, for the year ended December 31, 2013 and was positively impacted by increased volumes and improved pricing within our Environmental Solutions Group. The increase in gross profit was partially

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offset by higher information technology costs, as well as lower fixed overhead absorption, at our Safety and Security Systems Group. Gross profit margin in 2013 increased by 0.5% to 24.1% largely due to the factors noted above.

Selling, engineering, general and administrative expenses

Selling, engineering, general and administrative ("SEG&A") expenses decreased by $3.1 million for the year ended December 31, 2013. The overall decrease is primarily due to a $3.7 million reduction in Corporate expenses, largely due to reduced employee incentive compensation expense and lower medical expenses, and a $1.3 million decline in SEG&A expenses in our Safety and Security Systems Group, offset by increases of $1.3 million and $0.6 million at our Environmental Solutions Group and Fire Rescue Group, respectively.

Restructuring Charges

In 2013, the Company recorded expenses of $1.2 million and $0.3 million related to severance costs in the Safety and Security Systems Group and Corporate, respectively.

In 2012, the Company recorded expenses of $0.9 million and $0.6 million related to severance costs in the Safety and Security Systems Group and Corporate, respectively. Based upon further developments in 2013, it was determined that the $0.6 million of Corporate restructuring costs were not required and this charge was reversed in the year ended December 31, 2013.

Operating income

Operating income increased by $19.1 million, or 37%, for the year ended December 31, 2013. The increase was largely a result of improved gross profit within our Environmental Solutions Group driven by improved product pricing and increased volumes, partially offset by unfavorable gross profit impacts at our Safety and Security Systems Group discussed above, including the effects of an ERP system implementation in the second quarter of 2013.

Interest expense

Interest expense decreased by $12.6 million, or 59%, for the year ended December 31, 2013. The decrease was primarily due to a significant reduction in total debt, coupled with a reduction in interest rates resulting from the Company's March 2013 debt refinancing. For further discussion, see Note 5 – Debt to the accompanying consolidated financial statements.

Debt settlement charges

In the first quarter of 2013, the Company recorded $8.7 million of charges related to the termination of our prior debt facilities. The expenses included the write-off of deferred financing fees of $4.5 million and a prepayment penalty of $4.2 million.

In the first quarter of 2012, the Company recorded $1.6 million of charges related to the termination of its prior debt agreements. The expenses included $1.0 million of make-whole interest payments and a write-off of deferred financing fees of $0.6 million. In the third quarter of 2012, the Company expensed an additional $1.9 million of deferred financing fees relating to the $75.0 million reduction of our then existing debt facilities.

Other expense, net

Other expense, net totaled $0.1 million for the year ended December 31, 2013 as compared to $0.7 million in the prior year, and includes realized losses from foreign currency transactions and derivative contracts.

Income tax benefit (expense)

The Company recognized an income tax benefit of $107.2 million and expense of $3.9 million for the years ended December 31, 2013 and 2012, respectively. The Company's effective tax rate was (202.3)% and 15.1% for the years ended December 31, 2013 and 2012, respectively.

In the second quarter of 2013, it was determined that $102.4 million of our valuation allowance on U.S. deferred tax assets could be released. This evaluation was based on a qualitative and quantitative analysis of current and expected domestic earnings, industry and market trends, tax planning strategies, and general business risks, that resulted in a more likely than not conclusion of being able to realize a significant portion of our U.S. deferred tax assets.

Upon releasing the significant portion of our valuation allowance on U.S. deferred tax assets in the second quarter, a valuation allowance of $10.4 million was maintained in accordance with the guidance provided in Accounting Standards Codification ("ASC") 740-270-25-4 and was released through the effective tax rate as domestic income was

recognized throughout the

course of the year. An additional $3.4 million reduction in deferred tax valuation allowances was recorded as a discrete item in the year ended December 31, 2013.

In the fourth quarter of 2013, the Company also executed a tax planning strategy that resulted in the release of $6.7 million of valuation allowance that was previously recorded against the Company's foreign tax credits, which would have begun to expire in 2015.

The Company also recorded a tax benefit of $0.8 million associated with a reduction in the tax rate in Finland that was enacted during the fourth quarter of 2013.

Offsetting the benefits associated with the aforementioned releases of the valuation allowance and the tax rate change in Finland during the year ended December 31, 2013 was tax expense on non-U.S earnings as well as $0.8 million of tax expense associated with a change in the tax rate in the United Kingdom that was enacted during the third quarter of 2013.

For further discussion, see Note 6 – Income Taxes to the accompanying consolidated financial statements.

Income from continuing operations

Income from continuing operations was $160.2 million for the year ended December 31, 2013 as compared to $22.0 million in the prior year. As indicated above, our results included the release of a significant portion of the valuation allowance on our U.S. deferred tax assets. Income before taxes was positively impacted by improvements in net sales, gross profit, and operating efficiencies, as well as a $12.6 million reduction in interest expense. These improvements were partially offset by higher debt settlement charges of $5.2 million in connection with our March 2013 refinancing.

Loss from discontinued operations and disposal, net of tax

For the year ended December 31, 2013, a loss from discontinued operations and disposals, net of tax of $0.2 million was recorded. The loss includes a charge related to special termination benefits provided to certain employees of the legacy FSTech Group businesses that were retained by the Company in order to assist with transitional operations through the end of the third quarter of 2013 as well as certain adjustments relating to assets of other previously discontinued operations.

For the year ended December 31, 2012, the loss from discontinued operations and disposals, net of tax largely reflected the operating losses, as well as the loss on disposal, of the FSTech Group. For further discussion of the loss from discontinued operations and disposals, see Note 11 – Discontinued Operations to the accompanying consolidated financial statements.

Year ended December 31, 2012 vs. year ended December 31, 2011

Net sales

Net sales increased by $114.5 million, or 17%, for the year ended December 31, 2012 with increases across all segments.

Cost of sales

Cost of sales increased by $80.1 million, or 15%, for the year ended December 31, 2012 primarily as a result of increased sales volume, offset by favorable product mix and currency impacts.

Gross profit

Gross profit margin was 23.6% for the year ended December 31, 2012 compared to 22.6% in the prior year primarily as a result of increased sales volume and an overall favorable change in product mix.

Operating income

Operating income increased by $18.3 million, or 55%, for the year ended December 31, 2012 primarily due to higher sales volume and favorable product mix, partially offset by restructuring charges of $1.4 million that were recorded in 2012.

Interest expense

Interest expense increased by $5.0 million for the year ended December 31, 2012 primarily due to an increase in interest rates on the Company's debt financing agreements entered into in February 2012. For further discussion, see Note 5 – Debt to the accompanying consolidated financial statements.

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Debt settlement charges

In the first quarter of 2012, the Company recorded $1.6 million of charges related to the termination of its prior debt agreements. On September 4, 2012, the Company expensed $1.9 million of deferred debt issuance costs related to the $75.0 million prepayment of the outstanding principal for the Company's $215 million term loan and $100 million secured credit facility. The debt settlement charges for 2012 totaled $3.5 million and included $1.0 million of make-whole interest payments and a write-off of deferred financing costs of $2.5 million.

Other expense, net

Other expense totaled $0.7 million for the year ended December 31, 2012 as compared to $0.2 million in the prior year, and primarily included realized losses from foreign currency transactions and derivative contracts.

Income tax benefit (expense)

The 2012 effective tax rate on income from continuing operations decreased by 6.0% to 15.1% for the year ended December 31, 2012. The Company's 2012 and 2011 effective tax rates reflect no recorded tax benefits for domestic operating losses or domestic loss carryforwards. However, an income tax provision is recorded for foreign operations and other jurisdictions that are not in a cumulative loss position.

Income from continuing operations

Income from continuing operations was $22.0 million for the year ended December 31, 2012 as compared to $13.1 million in the prior year. The increase of $8.9 million was primarily due to improved operating income as described above, partially offset by increased interest expense and debt settlement charges recorded in 2012.

Loss from discontinued operations and disposal, net of tax

Loss from discontinued operations and disposal, net of tax was $49.5 million for the year ended December 31, 2012 and primarily resulted from the sale of the FSTech Group, as compared to $27.3 million in prior year primarily from the operations of the FSTech Group, including goodwill and intangibles impairment charges. For further discussion of the loss from discontinued operations and disposals, see Note 11 – Discontinued Operations to the accompanying consolidated financial statements.

Orders & Backlog

($ in millions)	2013		2012		2011	
Total orders	$836.8		$826.3		$831.4	
Change in orders year-over-year	1.3	%	(0.6	)%	28.9	%
Change in U.S. municipal and government orders year-over-year	1.7	%	7.7	%	22.0	%
Change in U.S. industrial and commercial orders year-over-year	8.6	%	(7.2	)%	36.5	%
Change in non-U.S. orders year-over-year	(4.0	)%	(3.0	)%	30.0	%
Backlog	$305.8		$318.4		$295.2	
Change in backlog year-over-year	(4.0	)%	7.8	%	86.7	%

For the year ended December 31, 2013, total orders of $836.8 million increased by 1% compared to the prior year largely due to improved orders for municipal street sweepers and industrial vacuum trucks within our Environmental Solutions Group.

U.S. municipal and governmental orders increased by 2% primarily resulting from increases in municipal street sweeper orders of $12.6 million, which were positively impacted by a shift in product mix with increased orders of higher-priced units and the effects of an improved pricing strategy, as well as a $4.9 million increase in orders within the police market related to new vehicle registrations and increased market share. Partially offsetting these increases was a $9.2 million decrease in municipal sewer cleaner orders. As a result of capacity constraints, in 2012 the Company experienced accelerated placement of orders for sewer cleaners by customers seeking to assure availability of these products, which resulted in an inflated backlog. As the Company has expanded capacity at the locations most affected by these advanced placement of orders, a return to more normal ordering patterns has been noted, which has resulted in a reduced backlog. Orders for outdoor warning systems in our Safety and Security Systems Group were

also down $4.0 million due to a decrease in military-market orders.
U.S. industrial orders increased by 9% primarily as a result of improved orders of $7.3 million for vacuum trucks, $5.1 million for waterblasters, and $4.7 million for used equipment.

Non-U.S. orders decreased by 4% primarily due to lower demand in the Asia Pacific region for our fire-lift products and decreased orders for international mining product orders due to slowing demand from our coal-mining markets.
For the year ended December 31, 2012, total orders of $826.3 million decreased by 1% compared to the prior year as slower demand for industrial vacuum trucks more than offset strong municipal demand for sewer cleaners and market share gains in police and fire markets.
U.S. municipal and government orders increased 8% driven by a $14.4 million increase in orders for sewer cleaners and a $10.4 million increase in police and fire markets and outdoor warning systems.
U.S. industrial and commercial orders decreased by 7% primarily due to decreases in industrial vacuum truck orders of $35.1 million, partially offset by increased industrial safety and security product orders of $5.4 million due to higher market demand and increased waterblaster orders of $8.6 million.
Non-U.S. orders decreased by 3% with decreases across most segments, partially offset by a $2.6 million increase in U.S. export orders to Canada and Asia.
Backlog was $305.8 million at December 31, 2013 as compared to $318.4 million at December 31, 2012. The decrease is primarily due to (i) increased production levels of our municipal sewer cleaners, which facilitated reductions in backlog that had become inflated by long-advance orders, (ii) the timing of large orders within our integrated systems and outdoor warning systems businesses, and (iii) reduced orders of our fire-lift products as we completed and delivered units from a strong order cycle in the Asia Pacific region in the prior year. This was partially offset by increased orders for our street sweepers in the third and fourth quarters of 2013.
Environmental Solutions
The following table summarizes the Environmental Solutions Group’s operating results as of and for the years ended December 31, 2013, 2012, and 2011:

	For the Years Ended December 31,			Change	
($ in millions)	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Net sales	$474.0	$427.8	$357.8	$46.2	$70.0
Operating income	58.2	42.0	24.5	16.2	17.5
Other data:					
Operating margin	12.3 %	9.8 %	6.8 %	2.5 %	3.0 %
Total orders	$469.7	$447.9	$458.5	$21.8	$(10.6)
Backlog	199.3	203.6	183.4	(4.3)	20.2
Depreciation and amortization	6.1	5.4	5.2	0.7	0.2

Year ended December 31, 2013 vs. year ended December 31, 2012
Total orders increased by $21.8 million for the year ended December 31, 2013. U.S. orders increased $23.2 million largely due to an increase in street sweeper orders of $13.7 million. Street sweeper orders were positively impacted by a shift in product mix with increased orders of higher-priced units, as well as the effects of an improved pricing strategy. U.S. orders further benefited from increased orders of vacuum trucks of $7.3 million, waterblasters of $5.1 million and used equipment of $4.7 million. Partially offsetting these increases were decreased sewer cleaner orders of $9.2 million. As discussed above, the Company has experienced a return to more normal ordering patterns as production capacity for sewer cleaners and vacuum trucks has increased. Non-U.S. orders decreased by $1.4 million compared to the prior year, which benefited from a significant order for vacuum trucks from a customer in the Asia Pacific region. Improved export orders for our street sweepers from customers in Canada, South America, and the Middle East partially offset the decrease.
Net sales increased by $46.2 million, or 11%, for the year ended December 31, 2013. The increases in sales were experienced across all product lines. U.S. sales increased $42.2 million, or 12%, most notably due to a $33.1 million increase in sewer cleaner and vacuum truck shipments, a $3.5 million increase in sales of street sweepers as well as higher sales of other product lines. Our vacuum truck and sewer cleaner sales continue to exceed prior-year levels largely due to increased production capacity. Non-U.S. sales increased $4.0 million primarily due to increased vacuum

truck, sewer cleaner, and street sweeper shipments to Canada and the Middle East, partially offset by reduced sales of vacuum trucks in the Asia Pacific region compared with the prior year. In addition to the impacts associated with increased unit volumes of $39.1 million, net sales further benefited from improved pricing.

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Cost of sales increased by $28.6 million for the year ended December 31, 2013. The increase is associated with increased unit volumes of $31.1 million, and $0.8 million of additional warranty expense, partially offset by favorable pricing and product mix impacts of $3.4 million. Cost increases were partially offset with margin improvement initiatives to control variable and fixed cost structures. Gross profit for the year ended December 31, 2013 improved to 20.3% from 18.4% in the prior year largely due to the aforementioned improvements in pricing and favorable product mix impacts.

SEG&A expenses increased by $1.3 million in the year ended December 31, 2013. The increase in SEG&A expenses primarily represented $0.7 million of increased salaries, driven by higher sales commissions and annual merit benefits, and $0.5 million in increased training and travel-related expenses.

Operating income increased by $16.2 million, or 39%, for the year ended December 31, 2013. The increase in operating income was a result of higher gross profit of $17.6 million, primarily related to pricing improvements and favorable volumes, partially offset by increased SEG&A expenses.

Backlog was $199.3 million at December 31, 2013 compared to $203.6 million at December 31, 2012. The decrease is primarily due to increased production levels of our municipal sewer cleaners and vacuum trucks, which facilitated reductions in backlog that had become inflated by long-advance orders. This was partially offset by increased orders for our street sweepers in the third and fourth quarters of 2013.

Year ended December 31, 2012 vs. year ended December 31, 2011

Total orders decreased by $10.6 million for the year ended December 31, 2012. U.S. orders decreased $13.2 million primarily due to decreases in vacuum trucks of $35.1 million and street sweepers of $2.7 million, partially offset by increases in sewer cleaners of $14.4 million and waterblasters of $8.6 million. Non-U.S. orders increased $2.6 million compared to the prior year, with increases in U.S. export orders to Canada and Asia.

Net sales increased by $70.0 million, or 20%, for the year ended December 31, 2012. U.S. sales increased $56.7 million with increases in all product lines as a result of strong opening backlog and solid orders during the year. Non-U.S. sales were up $13.3 million, resulting from an increase in shipments to Canada and Asia, partially offset by declines in shipments to the Middle East.

Cost of sales increased by $51.1 million, or 17%, for the year ended December 31, 2012. Increases in cost of sales were primarily associated with volume increases of $56.2 million, partially offset by favorable product mix of $5.1 million between domestic and international markets.

Operating income increased by $17.5 million, or 71%, for the year ended December 31, 2012. The increase was primarily a result of higher gross margins of $18.9 million, partially offset by increased SEG&A expenses of $1.4 million. The increase in expense was related to additional commission expense associated with increased sales and increases in salary and benefit programs.

Safety and Security Systems

The following table summarizes the Safety and Security Systems Group’s operating results as of and for the years ended December 31, 2013, 2012, and 2011:

	For the Years Ended December 31,			Change	
($ in millions)	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Net sales	$238.9	$240.3	$221.4	$(1.4)	$18.9
Operating income	26.1	27.9	21.5	(1.8)	6.4
Other data:					
Operating margin	10.9 %	11.6 %	9.7 %	(0.7)%	1.9 %
Total orders	$236.3	$241.9	$235.3	$(5.6)	$6.6
Backlog	27.2	31.2	31.7	(4.0)	(0.5)
Depreciation and amortization	4.2	4.3	4.4	(0.1)	(0.1)

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Year ended December 31, 2013 vs. year ended December 31, 2012

Total orders decreased $5.6 million for the year ended December 31, 2013. Total U.S. orders decreased by $1.2 million, represented by a $4.0 million reduction in orders for outdoor warning systems resulting from large military-market orders received in the prior year, partially offset by increases in our police market, related to new vehicle registrations and increased market share. Non-U.S. orders decreased by $4.4 million, primarily due to decreases of $2.7 million for international mining product orders due to slowing demand from our coal-mining markets and $1.2 million of decreased orders in our European public safety markets. There was also weakness in our other international markets, including our integrated systems business, that was adversely impacted by the timing of large orders.

Net sales decreased by $1.4 million in the year ended December 31, 2013. U.S. sales improved by $2.7 million, largely due to improvements in our police market, where sales increased by $6.6 million due to improved demand and increasing market share. Partially offsetting this improvement was a $3.4 million decrease in sales of outdoor warning systems, which was impacted by the completion of significant orders during 2012. Non-U.S. sales decreased $4.1 million, primarily due to continuing weakness in the coal-mining markets, with sales decreasing by $4.2 million, a $2.8 million decrease in sales to our international public safety markets, and a $1.0 million decrease in integrated system sales. These decreases were partially offset by a $1.4 million increase in sales relating to non-U.S. outdoor warning systems, primarily due to the timing of orders and shipments, and a $1.3 million increase in sales of industrial products.

Cost of sales increased by $1.6 million for the year ended December 31, 2013. The increase was primarily related to the implementation of new ERP software within our U.S. operations during the second quarter of 2013, including inefficiencies experienced during the implementation, higher spending on engineering and implementation costs in our systems businesses, and product and customer sales mix. In addition, cost of sales increased due to lower absorption of fixed overhead costs resulting from a change in sales mix amongst our businesses and product lines. These increases were partially offset by the impacts of lower sales volumes. Gross profit for the year ended December 31, 2013 declined to 33.4% from 34.4% in the prior year largely due to the costs and inefficiencies associated with the ERP implementation.

SEG&A expenses decreased by $1.3 million in the year ended December 31, 2013. The decrease was driven by lower legal fees and decreased incentive compensation. Offsetting this decrease was a $0.5 million increase in the allowance for doubtful accounts associated with a specific international customer.

Operating income decreased $1.8 million largely due to a $3.0 million reduction in gross profit, partially offset by the $1.3 million decrease in SEG&A expenses noted above. In addition, there was a $0.1 million increase in restructuring charges.

Backlog was $27.2 million at December 31, 2013, compared to $31.2 million at December 31, 2012. The $4.0 million decrease is primarily due to timing of large orders within our integrated systems and outdoor warning systems businesses, as well as decreased backlog within our European public safety markets.

Year ended December 31, 2012 vs. year ended December 31, 2011

Total orders increased by $6.6 million for the year ended December 31, 2012 due to market share gains and modest market growth in most segments. U.S. orders increased $15.7 million, or 13%, including increases of $5.7 million in outdoor warning systems due to improved municipal spending, $5.5 million in public safety markets, and $4.5 million in industrial markets. Non-U.S. orders decreased $9.1 million, or 8%, primarily due to decreases in non-U.S. public safety orders of $16.5 million, partially offset by increases in industrial product exports of $5.5 million.

Net sales increased by $18.9 million, or 9%, for the year ended December 31, 2012. Excluding foreign currency effects, sales increased by $22.5 million and were offset by $3.6 million of unfavorable exchange rates. U.S. sales grew by $23.4 million, or 20%, including $14.4 million in outdoor warning systems, $4.3 million in public safety markets due to market share gains, $2.1 million in industrial products, and price increases of approximately 1% of sales. Non-U.S. sales decreased $4.5 million from the prior year, primarily due to decreases of $11.8 million in the European and export markets for public safety products, partially offset by higher industrial product export sales of

$8.0 million, primarily in the oil and gas markets, as well as some higher sales of mining products in international markets.

Cost of sales increased by $8.4 million for the year ended December 31, 2012. The increase in cost of sales was at a lower rate than the increase in sales due to higher absorption of fixed overhead costs, higher growth rates in higher margin industrial divisions and product lines, and material cost reductions on certain electrical components, as well as a 2% favorable exchange rate impact. In addition, cost of sales was unfavorably impacted by $2.2 million higher charges for inventory write downs.

Operating income increased by $6.4 million, or 30%, for the year ended December 31, 2012 primarily due to higher sales and gross margins. These increases were offset by increased selling costs of $2.6 million, higher variable sales commissions of $0.9 million, and higher incentive compensation expenses of $1.2 million, which were offset by a $0.6 million decrease in legal

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expenses. The Safety and Security Systems Group incurred restructuring costs of $0.9 million in 2012, while there were no restructuring costs recorded in the prior year.

Fire Rescue

The following table summarizes the Fire Rescue Group’s operating results as of and for the years ended December 31, 2013, 2012, and 2011:

	For the Years Ended December 31,			Change	
($ in millions)	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Net sales	$138.4	$135.1	$109.5	$3.3	$25.6
Operating income	9.0	8.9	6.6	0.1	2.3
Other data:					
Operating margin	6.5 %	6.6 %	6.0 %	(0.1)%	0.6 %
Total orders	$130.8	$136.5	$137.6	$(5.7)	$(1.1)
Backlog	79.3	83.6	80.1	(4.3)	3.5
Depreciation and amortization	3.2	2.6	2.5	0.6	0.1

Year ended December 31, 2013 vs. year ended December 31, 2012

Total orders decreased by $5.7 million for the year ended December 31, 2013 primarily due to lower demand in the Asia Pacific region in comparison to a strong order cycle in the prior year. Industrial orders in the U.S. were largely flat as compared to the prior year.

Net sales increased by $3.3 million for the year ended December 31, 2013 primarily driven by increased industrial sales in the U.S., as well as improved sales in the Middle East, partially offset by lower sales in the Asia Pacific and Europe. In the aggregate, the increase in sales was primarily attributable to favorable currency impacts of $4.4 million and favorable product mix impacts of $0.6 million, largely due to increased sales of higher-content chassis, partially offset by $1.7 million representing the effects of decreased unit volumes.

Cost of sales increased by $2.6 million for the year ended December 31, 2013 largely due to unfavorable currency impacts of $3.5 million and product mix of $0.4 million, partially offset by $1.3 million representing the impact from lower unit volumes. Gross profit in 2013 remained consistent with the prior year at 21.0%.

SEG&A expenses increased by $0.6 million in the year ended December 31, 2013, partly due to increased marketing efforts and engineering expenses associated with product development.

Operating income was largely flat, increasing by $0.1 million for the year ended December 31, 2013. Favorable product mix and improved production efficiencies of $0.8 million and favorable currency impacts of $0.3 million, were partially offset by increased SEG&A expenses of $0.6 million and lower volumes of $0.3 million.

Backlog was $79.3 million at December 31, 2013, compared to $83.6 million at December 31, 2012. The decrease was primarily due to reduced orders of our fire-lift products as we completed and delivered units from a strong order cycle in the Asia Pacific region in the prior year.

Year ended December 31, 2012 vs. year ended December 31, 2011

Total orders were largely flat, decreasing by $1.1 million for the year ended December 31, 2012.

Net sales increased by $25.6 million, or 23%, for the year ended December 31, 2012 primarily due to increased sales volume of $28.8 million, pricing increases of $2.5 million, and favorable product mix of $4.8 million, partially offset by unfavorable currency impacts of $10.5 million.

Cost of sales increased by $20.7 million, or 24%, for the year ended December 31, 2012 due to increased sales volume impacts of $22.3 million and product mix of $6.7 million, partially offset by favorable currency impacts of $8.3 million.

Operating income increased by $2.3 million, or 35%, for the year ended December 31, 2012 primarily due to higher sales volumes impacts of $6.5 million, partially offset by higher SEG&A expenses of $1.5 million, unfavorable product mix of $2.0 million, and unfavorable currency impacts of $0.7 million.

Corporate Expense

Corporate operating expenses were $22.7 million, $27.3 million, and $19.4 million for the years ended December 31, 2013, 2012, and 2011, respectively.

For the year ended December 31, 2013, corporate operating expenses decreased by $4.6 million, or 17%. The decrease primarily related to reductions in SEG&A expenses of $3.7 million, including reduced employee incentive compensation expense, and lower medical expense, as well as a $0.9 million favorable year-over-year impact from corporate restructuring activities.

For the year ended December 31, 2012, corporate operating expenses increased by $7.9 million, or 41%. The increase is primarily due to higher incentive compensation expense of $4.2 million, restructuring charges of $0.6 million recorded in 2012, and a $1.3 million reduction in an insurance reserve associated with carrier-paid claims recorded in 2011.

The hearing loss litigation has historically been managed by the Company's legal staff resident at the corporate office and not by management at any reporting segment. In accordance with ASC Topic 280, Segment Reporting, which provides that segment reporting should follow the management of the item and that certain expenses may be corporate expenses, these legal expenses (which are unusual and not part of the normal operating activities of any of our operating segments), are reported and managed as corporate expenses.

Financial Condition, Liquidity and Capital Resources

During each of the three years in the period ended December 31, 2013, the Company used its cash flows from operations to fund growth and to make capital investments that sustain its operations, reduce costs, or both. Beyond these uses, remaining cash was used to pay down debt and make pension contributions. The Company also used cash flows to fund cash dividends paid to shareholders during 2011.

The Company's cash and cash equivalents totaled $23.8 million, $29.7 million, and $9.5 million as of December 31, 2013, 2012, and 2011, respectively. As of December 31, 2013, $19.2 million of cash and cash equivalents was held by foreign subsidiaries. Cash and cash equivalents held by subsidiaries outside the United States is held primarily 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. The Company's ability to refinance its debt in March 2013 further supports that it does not need to repatriate cash from its foreign subsidiaries 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 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 provided by continuing operating activities totaled $80.3 million, $49.2 million, and $14.1 million in 2013, 2012, and 2011, respectively. In 2013, the increase was primarily the result of higher earnings, combined with reductions in working capital. In 2012, the increase was primarily due to higher earnings from continuing operations and increased collections on accounts receivable balances. The decrease in 2011 was primarily due to an increase in cash used to support net working capital.

Net cash used in continuing investing activities totaled $15.9 million and $11.6 million and in 2013 and 2011, respectively. In 2012, $69.9 million of net cash was provided by investing activities, principally due to the receipt of $82.1 million from the sale of the FSTech Group. In each of the years presented, cash was used to the purchase of properties and equipment, with $17.0 million, $13.0 million, and $13.5 million of capital expenditures in 2013, 2012, and 2011, respectively. The increase in capital expenditures in 2013 is primarily the result of continued investment in existing businesses, including those with the best opportunities to drive organic growth. Proceeds from the sale of properties and equipment amounted to $0.1 million, $1.8 million, and $1.9 million in 2013, 2012, and 2011, respectively.

Net cash used for continuing financing activities totaled $65.6 million, $71.8 million, and $44.9 million in 2013, 2012, and 2011, respectively. In 2013, the Company used $61.4 million to pay down debt, and $6.1 million to pay an early termination penalty and debt issuance costs in connection with its March 2013 debt refinancing. The Company also received $2.6 million from stock compensation activity in 2013. In 2012, the Company used $67.3 million to pay down debt, and $6.9 million of debt issuance costs in connection with its 2012 debt refinancing. In 2011, the Company used $40.2 million to pay down debt, $2.3

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million to pay costs in connection with amending a prior debt agreement and $3.7 million to pay cash dividends to shareholders.

The Company uses the ratio of total debt to adjusted EBITDA as one measure of its long-term financial stability. The ratio of debt to adjusted EBITDA represents total debt divided by the trailing 12-month total of income from continuing operations before interest expense, debt settlement charges, other expense, income tax provision, and depreciation and amortization expense. The Company uses the ratio to calibrate the magnitude of its debt and its debt capacity against adjusted EBITDA, which is used as an operating performance measure. We believe that investors use a version of this ratio in a similar manner. In addition, financial institutions (including the Company's lenders) use the ratio in connection with debt agreements to set pricing and covenant limitations. For these reasons, the Company believes that the ratio is a meaningful metric to investors in evaluating the Company's long-term financial performance and stability. Other companies may use different methods to calculate total debt to EBITDA. The following table summarizes the Company's ratio of total debt to adjusted EBITDA, and reconciles income from continuing operations to adjusted EBITDA as of and for each of the three years in the period ended December 31, 2013:

($ in millions)	2013	2012	2011
Total debt	$92.1	$157.8	$222.2
Income from continuing operations	$160.2	$22.0	$13.1
Add:			
Interest expense	8.8	21.4	16.4
Debt settlement charges	8.7	3.5	—
Other expense, net	0.1	0.7	0.2
Income tax (benefit) provision	(107.2)	3.9	3.5
Depreciation and amortization	14.2	13.2	13.0
Adjusted EBITDA	$84.8	$64.7	$46.2
Total debt to adjusted EBITDA ratio	1.1	2.4	4.8

On February 22, 2012, the Company entered into a Credit Agreement by and among the Company, as borrower, General Electric Capital Corporation, as a co-collateral agent, and Wells Fargo Capital Finance, LLC, as administrative agent and co-collateral agent, providing the Company with a $100.0 million secured credit facility (the "ABL Facility"). On February 22, 2012, the Company also entered into a Financing Agreement by and among the Company, as borrower, certain subsidiaries of the Company, as guarantors, the lenders party thereto (the "Term Lenders") and TPG Specialty Lending, Inc., as administrative agent, collateral agent and sole lead arranger, pursuant to which the Term Lenders agreed to provide the Company with a $215.0 million term loan (the "2012 Term Loan").

On March 13, 2013, the Company entered into a new Credit Agreement by and among the Company, as borrower, the lenders referred to therein, as lenders, Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, General Electric Capital Corporation, as syndication agent, and Wells Fargo Securities, LLC and GE Capital Markets, Inc., as joint lead arrangers and joint book managers, providing the Company with a new $225.0 million senior secured credit facility (the "Senior Secured Credit Facility") comprised of a five-year fully funded term loan of $75.0 million and a five-year $150.0 million revolving credit facility under which borrowings may be made from time to time during the term of the Senior Secured Credit Facility.

The Company used the proceeds from the Senior Secured Credit Facility to (i) repay outstanding balances of the ABL Facility; (ii) repay outstanding balances under the 2012 Term Loan; (iii) finance the ongoing general corporate needs of the Company and its subsidiaries; and (iv) pay fees and expenses associated with repayment of amounts due under the ABL Facility and 2012 Term Loan, including the payment of approximately $4.2 million in resulting breakage fees and premiums under the 2012 Term Loan, and pay fees and expenses associated with the Senior Secured Credit Facility.

The Senior Secured Credit Facility is a five-year senior secured credit facility 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 certain of the first-tier foreign subsidiaries, subject to certain exclusions. The Senior Secured Credit Facility requires equal quarterly installment payments against the $75.0 million term loan that began on June 30, 2013 based on an amortization schedule. Year 1 of the Senior Secured Credit Facility amortization schedule requires 7.5% of the original term loan amount to be repaid, years 2 and 3 require 10.0% of the original term loan to be repaid, years 4 and 5 require 12.5% of the original term loan to be repaid, with the remaining balance to be repaid on the maturity date of March 13, 2018.

The Senior Secured Credit Facility provides for loans and letters of credit in an amount up to an aggregate availability under the revolving credit facility of $150.0 million, with a sub-limit of $50.0 million for letters of credit. Borrowings under the entire Senior Secured Credit Facility 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 1.00% to 2.00% for base rate borrowings and 2.00% to 3.00% for LIBOR borrowings. The Company must also pay a commitment fee to the lenders equal to a range of 0.25% to 0.45% per annum on the unused portion of the $150.0 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 allowed to prepay in whole or in part advances under the revolving credit facility portion without penalty or premium other than customary "breakage" costs with respect to LIBOR loans.

The Senior Secured Credit Facility requires the Company to comply with financial covenants related to the maintenance of a minimum fixed charge coverage ratio and maximum leverage ratio. The financial covenants are measured at each fiscal quarter-end. Restricted payments, including dividends, shall be permitted only if the pro-forma leverage ratio after giving effect to such payment is less than 3.25x, pro-forma compliance after giving effect to such payment is maintained for all other financial covenants and there are no existing defaults under the Senior Secured Credit Facility. The Company was in compliance with all of its debt covenants as of December 31, 2013.

In the first quarter of 2013, upon execution of the Company's new debt agreements, the Company recorded $8.7 million of costs related to the termination of its prior debt agreements. The costs included a $4.2 million early termination penalty payment which was equal to 2.75% of the outstanding balance of the 2012 Term Loan and a $4.5 million write-off of the remaining unamortized deferred financing costs related to the ABL Facility and 2012 Term Loan.

The Company incurred $1.9 million of debt issuance costs associated with the execution of the Senior Secured Credit Facility. Financing costs incurred in connection with the Senior Secured Credit Facility are deferred and amortized over the remaining life of the new debt.

As of December 31, 2013, there was $20.0 million of cash drawn and $26.4 million of undrawn letters of credit under the $150.0 million revolving credit facility portion of the Senior Secured Credit Facility, with $103.6 million of net availability for borrowings. As of December 31, 2013, no amounts were drawn against the Company's non-U.S. lines of credit which provide for borrowings up to $15.3 million.

On March 13, 2013, the Company entered into an interest rate swap (the "Swap") as a means of fixing the floating interest rate component on $75.0 million of its variable-rate debt under the Senior Secured Credit Facility. The Swap is designated as a cash flow hedge, with a termination date of March 13, 2018. At December 31, 2013, the fair value of the Swap, included in deferred charges and other long-term assets on the consolidated balance sheet, was $0.4 million. The associated unrealized pre-tax gain of $0.4 million was recorded in accumulated other comprehensive income during the year ended December 31, 2013.

Aggregate maturities of total borrowings amount to approximately $7.4 million in 2014, $7.9 million in 2015, $9.3 million in 2016, $9.5 million in 2017, and $58.0 million in 2018 and thereafter.

Included in current maturities are $7.0 million of term loan debt and $0.4 million of capital lease obligations. The fair values of borrowings aggregated to $92.1 million and $208.5 million at December 31, 2013 and 2012, respectively.

The Company paid interest of $9.4 million in 2013, $20.6 million in 2012, and $16.1 million in 2011. The weighted average interest rate on long-term borrowings, including the effects of the interest rate swap, was 2.75% at December 31, 2013.

Cash dividends paid to stockholders in 2011 were $3.7 million for a dividend declared in 2010. The Company did not declare any dividends in 2013, 2012, or 2011, and accordingly, no dividends were paid in 2013 or 2012.

Total debt net of cash and cash equivalents included in continuing operations was $68.3 million representing 16% of total capitalization at December 31, 2013 versus $128.1 million or 47% at December 31, 2012. The decrease in the percentage of total debt net of cash and cash equivalents to total capitalization in 2013 was due to a $65.7 million

reduction of total debt, combined with a significant increase in retained earnings during 2013 resulting from the generation of $160.0 million of net income for the year ended December 31, 2013.

The Company anticipates that capital expenditures for 2014 will be in the range of $15 million to $20 million. The Company believes that its financial resources and major sources of liquidity, including cash flow from operations and borrowing capacity, will be adequate to meet its operating and capital needs in addition to its financial commitments.

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Contractual Obligations and Commercial Commitments

The following table summarizes the Company's contractual obligations and payments due by period as of December 31, 2013:

	Payments Due by Period				
(in millions)	Total	Less than 1 Year	2-3 Years	4-5 Years	More than 5 Years
Long-term debt	$90.8	$7.0	$16.4	$67.4	$—
Operating lease obligations	51.8	7.5	12.5	10.8	21.0
Capital lease obligations	1.3	0.4	0.8	0.1	—
Pension contributions [(1)]	10.1	10.1	—	—	—
Interest payments on long term debt [(2)]	7.5	1.9	3.3	2.3	—
Total contractual obligations [(3)]	$161.5	$26.9	$33.0	$80.6	$21.0

(1) The Company expects to contribute up to $8.8 million to the U.S. benefit plans and up to $1.3 million to the non-U.S. benefit plans in 2014, which represents the minimum required contribution. Future contributions to the plans will be based on such factors as annual service cost, the financial return on plan assets, interest rate movements that affect discount rates applied to plan liabilities, and the value of benefit payments made. Due to the high degree of uncertainty regarding the potential future cash outflows associated with these plans, the Company is unable to provide a reasonably reliable estimate of the amounts and periods in which any additional liabilities might be paid.

(2) Excludes the effects of interest rate swap.

(3) As of December 31, 2013, the Company has a liability of approximately $4.8 million for unrecognized tax benefits (refer to Note 6 – Income Taxes to the accompanying consolidated financial statements). Due to the uncertainties related to these tax matters, the Company generally cannot make a reasonably reliable estimate of the period of cash settlement for this liability. As such, the potential future cash outflows are not included in the table above. Our unrecognized tax benefits may decrease by $2.3 million over the next 12 months due to potential expiration of the statute of limitations and settlements with tax authorities.

The following table summarizes the Company's commercial commitments and the notional amount by expiration period as of December 31, 2013:

	Notional Amount by Expiration Period		
(in millions)	Total	Less than 1 Year	2-3 Years
Financial standby letters of credit [(1)]	$24.2	$24.2	$—
Performance standby letters of credit [(1)]	4.6	3.9	0.7
Purchase obligations [(2)]	34.5	33.7	0.8
Performance and bid bonds [(3)]	17.4	14.2	3.2
Total commercial commitments	$80.7	$76.0	$4.7

(1) Financial standby letters of credit largely relate to casualty insurance policies for the Company's workers' compensation, automobile, general liability, and product liability policies. Performance standby letters of credit primarily represent guarantees of performance of certain subsidiaries that engage in transactions with foreign customers.

(2) Purchase obligations relate to commercial chassis.

(3) Performance and bid bonds primarily relate to guarantees of performance of certain subsidiaries that engage in transactions with domestic and foreign customers.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the

reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The Company considers the following policies to be the most critical in understanding the judgments that are involved in the preparation of the Company's

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consolidated financial statements and the uncertainties that could impact the Company’s financial condition, results of operations, and cash flows.

Revenue Recognition

Net sales consist primarily of revenue from the sale of equipment, environmental vehicles, vehicle-mounted aerial platforms, parts, service, and maintenance contracts.

The Company recognizes revenue for products when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, and collection is reasonably assured. A product is considered delivered to the customer once it has been shipped and title and risk of loss have been transferred. For most of the Company’s product sales, these criteria are met at the time the product is shipped; however, occasionally title passes later or earlier than shipment due to customer contracts or letter of credit terms. If, at the outset of an arrangement, the Company determines the arrangement fee is not, or is presumed not to be, fixed or determinable, revenue is deferred and subsequently recognized as amounts become due and payable and all other criteria for revenue recognition have been met.

The Company enters into sales arrangements that may provide for multiple deliverables to a customer. These arrangements may include software and non-software components that function together to deliver the products' essential functionality. The Company identifies all goods and/or services that are to be delivered separately under the sales arrangement and allocates revenue to each deliverable based on relative fair values. Fair values are generally established using reliable third-party objective evidence, or management's best estimate of selling price, including prices charged when sold separately by the Company. In general, revenues are separated between hardware, integration, and installation services. The allocated revenue for each deliverable is then recognized using appropriate revenue recognition methods.

Workers’ Compensation and Product Liability Reserves

Due to the nature of the products manufactured, the Company is subject to product liability claims in the ordinary course of business. The Company is partially self-funded for workers’ compensation and product liability claims with various retention and excess coverage thresholds. After a claim is filed, an initial liability is estimated, if any is expected, to resolve the claim. This liability is periodically updated as more claim facts become known. The establishment and update of liabilities for unpaid claims, including claims incurred but not reported, is based on the assessment by the Company’s claim administrator of each claim, an independent actuarial valuation of the nature and severity of total claims, and management’s estimate. The Company utilizes a third-party claims administrator to pay claims, track and evaluate actual claims experience, and ensure consistency in the data used in the actuarial valuation. Management believes that the reserve established at December 31, 2013 appropriately reflects the Company’s risk exposure. The Company has not established a reserve for potential losses resulting from firefighter hearing loss litigation (see Note 13 – Legal Proceedings to the accompanying consolidated financial statements). If the Company is not successful in its defense after exhausting all appellate options, it will record a charge for such claims, to the extent they exceed insurance recoveries, at the appropriate time.

Goodwill

Goodwill represents the excess of the cost of an acquired business over the amounts assigned to its net assets. Goodwill is not amortized but is tested for impairment at a reporting unit level on an annual basis or when an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company performed its annual goodwill impairment test as of October 31, 2013.

In 2012, the Company adopted an amendment to ASC Topic 350, Intangibles - Goodwill and Other. The Company determined through its qualitative assessment during 2013 that it is not “more likely than not” that the fair values of certain of its reporting units were less than their carrying values. As a result, the Company was not required to perform the two-step impairment test described below for these reporting units.

For the remaining reporting unit in 2013 and for all reporting units in 2012 and 2011, goodwill was tested for impairment based on a two-step test. The first step, used to identify potential impairment, compares the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying

amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is unnecessary. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss, if any. The second step compares the implied fair value of reporting unit goodwill with the carrying amount of that goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess.

The Company generally determines the fair value of its reporting units using two valuation methods: the “Income Approach — Discounted Cash Flow Analysis” method, and the “Market Approach — Guideline Public Company Method.”

Under the “Income Approach — Discounted Cash Flow Analysis” method the key assumptions consider projected sales, cost of sales and operating expenses. These assumptions were determined by management utilizing our internal operating plan, growth rates for revenues and operating expenses, and margin assumptions. An additional key assumption under this approach is the discount rate, which is determined by looking at current risk-free rates of capital, current market interest rates, and the evaluation of risk premium relevant to the business segment. If our assumptions relative to growth rates were to change, our fair value calculation may change, which could result in impairment.

Under the “Market Approach — Guideline Public Company Method” the Company identified several publicly traded companies, including Federal Signal, which we believe have sufficiently relevant similarities. For these companies, the Company calculated the mean ratio of invested capital to revenues and invested capital to EBITDA. Similar to the income approach discussed above, sales, cost of sales, operating expenses, and their respective growth rates are key assumptions utilized. The market prices of the Company’s common stock and other guideline companies are additional key assumptions. If these market prices increase, the estimated market value would increase. If the market prices decrease, the estimated market value would decrease.

The results of these two methods are weighted based upon management’s evaluation of the relevance of the two approaches. In the 2013 evaluation, management used a combination of the income and market approaches to determine the reporting unit’s fair value.

The Company had no goodwill impairments for its continuing operations in 2013, 2012, and 2011. In addition, as of October 31, 2013, none of our reporting units were considered to be at risk of failing the first step of the goodwill impairment test. Adverse changes to the Company’s business environment and future cash flows could cause us to record impairment charges in future periods, which could be material. See Note 4 – Goodwill and Note 11 – Discontinued Operations to the accompanying consolidated financial statements for a summary of the Company’s goodwill and a discussion of impairment charges recorded in prior years for the discontinued FSTech Group, respectively.

Pensions

The Company sponsors domestic and foreign defined benefit pension plans. Major assumptions used in the accounting for these employee benefit plans include the discount rate, expected return on plan assets, and rate of increase in employee compensation levels. A change in any of these assumptions would have an effect on net periodic pension costs.

The following table summarizes the impact that a change in these assumptions would have on the Company’s operating income:

	Assumption Change:	
(in millions)	25 Basis Point Increase	25 Basis Point Decrease
Discount rate	$0.4	$(0.4)
Return on assets	0.4	(0.4)
Employee compensation levels	—	—

The weighted-average discount rate used to measure pension liabilities and costs is selected using a hypothetical portfolio of high quality bonds that would provide the necessary cash flows to match the projected benefit payments of the plans. The discount rate represents the rate at which our benefit obligations could effectively be settled as of the year-end measurement date. The weighted-average discount rate used to measure pension liabilities increased from 2012 to 2013. See Note 7 – Pensions to the accompanying consolidated financial statements for further discussion.

An incremental component is added for the expected return from active management based on the plan’s experience and on historical information obtained from the plan’s investment consultants. These forecasted gross returns are reduced by estimated management fees and expenses, yielding a long-term rate of return of 7.9% per annum for 2013. The expected asset return assumption is based upon a long-term view; therefore, we do not expect to see significant changes from year to year based on positive or negative actual performance in a single year.

Income Taxes

Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying values of existing assets and liabilities and their respective tax bases. Deferred tax assets are also recorded with respect to net operating losses and other tax attribute carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the years in which temporary differences are expected to be recovered or settled. Valuation allowances are established when it is more likely than not that deferred tax assets will not be realized. The effect on

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deferred tax assets and liabilities of a change in tax rates is recognized in the income of the period that includes the enactment date.

The guidance on accounting for income taxes provides important factors in determining whether a deferred tax asset will be realized, including whether there has been sufficient taxable income in recent years and whether sufficient income can reasonably be expected in future years in order to utilize the deferred tax asset. A high degree of judgment is required to determine if, and the extent that, valuation allowances should be recorded against deferred tax assets. A valuation allowance is required to be established or maintained when, based on currently available information and other factors, it is more likely than not that all or a portion of a deferred tax asset will not be realized.

We continue to evaluate the need to maintain a valuation allowance for deferred tax assets based on our assessment of whether it is more likely than not that deferred tax benefits will be realized through the generation of future taxable income. Appropriate consideration is given to all available evidence, both positive and negative, in assessing the need for a valuation allowance.

In the second quarter of 2013, this evaluation resulted in the determination that a significant portion of our valuation allowance on U.S. deferred tax assets could be released. The qualitative and quantitative analysis of current and expected domestic earnings, industry and market trends, tax planning strategies, and general business risks resulted in a more likely than not conclusion of being able to realize a significant portion of our U.S. deferred tax assets. We have been able to sustain positive earnings despite low demand for products and services that has occurred in many of our markets during the current and previous three years. Our earnings have become positive on a cumulative basis through this period. Market demand and our performance in many of our markets have improved during the current year, and demand and earnings performance are expected to continue into the foreseeable future. In addition, in 2012, we exited a business segment that had produced losses. We believe that our approach to the associated estimates and judgments applied to our tax positions as described herein is reasonable; however, actual results could differ and we may be exposed to increases or decreases in income taxes that could be material.

We continue to maintain a valuation allowance on certain state and foreign (principally Spain) deferred tax assets that we believe, on a more likely than not basis, will not be realized.

Accounting for uncertainty in income taxes addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. We recognize the tax benefit from an uncertain tax position if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement.

The guidance on accounting for uncertainty in income taxes also provides guidance on de-recognition and classification, and requires companies to elect and disclose their method of reporting interest and penalties on income taxes. We recognize interest and penalties related to uncertain tax positions as part of income tax expense.

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

The Company is subject to market risk associated with changes in interest rates and foreign exchange rates. To mitigate this risk, the Company utilizes interest rate swaps and foreign currency forward contracts. The Company does not hold or issue derivative financial instruments for trading or speculative purposes and is not party to leveraged derivatives contracts.

Interest Rate Risk

The Company manages its exposure to interest rate movements by targeting a proportionate relationship between fixed-rate debt to total debt generally within percentages between 40% and 60%. The Company uses funded fixed-rate borrowings as well as interest rate swap agreements to balance its overall fixed/floating interest rate mix. On March 13, 2013, a five-year floating to fixed rate amortizing interest rate swap with a total notional amount of $75 million was implemented fixing the entire term loan portion of the Senior Secured Credit Facility, which was closed and funded on the same date. The debt borrowed under the revolving credit portion of the Senior Secured Credit Facility remained with floating rates of interest. Throughout the year, excess cash used to repay the revolving credit

borrowings reduced the amount of floating-rate debt thereby increasing total fixed-rate debt balances outside of the 40% to 60% targets. The Company maintained a fixed-rate debt to floating-rate debt mix outside of the targets due to the low overall costs of the swap. This fixed/floating interest rate debt mix is reviewed periodically.

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The following table summarizes the principal cash flows and weighted average interest rates by year of maturity for the Company's total debt obligations, excluding the effects of the interest rate swap, held at December 31, 2013:

	Expected Maturity Date						Fair
($ in millions)	2014	2015	2016	2017	Thereafter	Total	Value
Variable rate debt	$7.4	$7.9	$9.3	$9.5	$58.0	$92.1	$92.1
Average interest rate	2.2 %	2.2 %	2.2 %	2.2 %	2.2 %	2.2 %	—

See Note 5 – Debt to the accompanying consolidated financial statements for a description of these agreements. A 100 basis point increase or decrease in variable interest rates in 2013 would have increased or decreased interest expense by approximately $0.6 million.

Foreign Exchange Rate Risk

Although the majority of sales, expenses, and cash flows are transacted in U.S. dollars, the Company has exposure to changes in foreign exchange rates, primarily the Euro and the British pound. If average annual foreign exchange rates had collectively weakened against the U.S. dollar by 10%, pre-tax earnings in 2013 would have decreased by $1.2 million from foreign currency translation.

The Company has foreign currency exposures related to buying and selling in currencies other than the local currency in which it operates. The Company from time to time also enters into foreign currency forward contracts to protect against the variability in exchange rates that may affect certain cash flows and intercompany transactions with its foreign subsidiaries. As of December 31, 2013, there are less than $0.1 million of unrealized gains on the Company's foreign exchange contracts. Changes after that date in exchange rates between the U.S. dollar, Euro, and British pound will impact the final settlement of any of these contracts.

Forward exchange contracts are recorded as a natural hedge when the hedged item is a recorded asset or liability that is revalued each accounting period, in accordance with ASC Topic 830, Foreign Currency Matters. For derivatives designated as natural hedges, changes in fair values are reported in the "Other expense, net" line of the consolidated statements of operations.

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FEDERAL SIGNAL CORPORATION
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Report of Independent Registered Public Accounting Firm
To the Board of Directors and Shareholders of Federal Signal Corporation
Oak Brook, Illinois
We have audited the accompanying consolidated balance sheet of Federal Signal Corporation and subsidiaries (the “Company”) as of December 31, 2013, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity, and cash flows for the year ended December 31, 2013. Our audit also included the financial statement schedule as of December 31, 2013 listed in the Index at Item 15. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audit.
We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
In our opinion, such 2013 consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2013, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material aspects, the information set forth therein.
We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2013, based on the criteria established in Internal Control — Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 5, 2014 expressed an unqualified opinion on the Company's internal control over financial reporting.
/s/ Deloitte & Touche LLP
Chicago, Illinois
March 5, 2014

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of Federal Signal Corporation

We have audited the accompanying consolidated balance sheet of Federal Signal Corporation and subsidiaries as of December 31, 2012, and the related consolidated statements of operations, comprehensive income (loss), shareholders' equity, and cash flows for each of the two years in the period ended December 31, 2012. Our audits also included the financial statement schedule listed in the Index at Item 15(2) for the fiscal years ended December 31, 2012 and 2011. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Federal Signal Corporation and subsidiaries at December 31, 2012, and the consolidated results of their operations and their cash flows for each of the two years in the period ended December 31, 2012, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule for the fiscal years ended December 31, 2012 and 2011, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ Ernst & Young LLP

Chicago, Illinois

March 15, 2013

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Report of Independent Registered Public Accounting Firm
To the Board of Directors and Shareholders of Federal Signal Corporation
Oak Brook, Illinois

We have audited the internal control over financial reporting of Federal Signal Corporation and subsidiaries (the "Company") as of December 31, 2013, based on criteria established in Internal Control — Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on the criteria established in Internal Control — Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2013 of the Company and our report dated March 5, 2014 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ Deloitte & Touche LLP
Chicago, Illinois
March 5, 2014

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years Ended December 31,		
(in millions, except per share data)	2013	2012	2011
Net sales	$851.3	$803.2	$688.7
Cost of sales	646.2	613.4	533.3
Gross profit	205.1	189.8	155.4
Selling, engineering, general and administrative expenses	133.8	136.9	122.2
Restructuring charges	0.7	1.4	—
Operating income	70.6	51.5	33.2
Interest expense	8.8	21.4	16.4
Debt settlement charges	8.7	3.5	—
Other expense, net	0.1	0.7	0.2
Income before income taxes	53.0	25.9	16.6
Income tax benefit (expense)	107.2	(3.9)	(3.5)
Income from continuing operations	160.2	22.0	13.1
Loss from discontinued operations and disposal, net of tax benefit of $0.8, $3.6, and $2.0, respectively	(0.2)	(49.5)	(27.3)
Net income (loss)	$160.0	$(27.5)	$(14.2)
Basic earnings (loss) per share:			
Earnings from continuing operations	$2.56	$0.35	$0.21
Loss from discontinued operations and disposal, net of tax	—	(0.79)	(0.44)
Net earnings (loss) per share	$2.56	$(0.44)	$(0.23)
Diluted earnings (loss) per share:			
Earnings from continuing operations	$2.53	$0.35	$0.21
Loss from discontinued operations and disposal, net of tax	—	(0.79)	(0.44)
Net earnings (loss) per share	$2.53	$(0.44)	$(0.23)
Weighted average shares outstanding:			
Basic	62.6	62.3	62.2
Diluted	63.2	62.7	62.2

See notes to consolidated financial statements.

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

	For the Years Ended December 31,		
(in millions)	2013	2012	2011
Net income (loss)	$160.0	$(27.5)	$(14.2)
Other comprehensive income (loss):			
Change in foreign currency translation adjustment	5.2	11.1	(4.3)
Change in unrecognized gains (losses) related to pension benefit plans, net of tax expense of $15.8, $0.3 and $1.6, respectively	32.9	(15.5)	(29.8)
Unrealized net gain (loss) on derivatives, net of tax expense of $0.2, $0.2 and $0.1, respectively	0.1	0.7	(0.7)
Total other comprehensive income (loss)	38.2	(3.7)	(34.8)
Comprehensive income (loss)	$198.2	$(31.2)	$(49.0)

See notes to consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(in millions, except per share data)	As of December 31, 2013	2012
ASSETS		
Current assets:		
Cash and cash equivalents	$23.8	$29.7
Restricted cash	—	1.0
Accounts receivable, net of allowances for doubtful accounts of $2.3 and $2.4, respectively	95.6	96.9
Inventories	109.8	119.9
Prepaid expenses	12.6	13.8
Other current assets	21.8	5.1
Current assets of discontinued operations	1.9	0.8
Total current assets	265.5	267.2
Properties and equipment, net	63.8	59.3
Goodwill	273.8	272.3
Deferred tax assets	33.1	—
Deferred charges and other assets	5.1	13.2
Long-term assets of discontinued operations	3.5	1.2
Total assets	$644.8	$613.2
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings	$—	$0.3
Current portion of long-term borrowings and capital lease obligations	7.4	4.7
Accounts payable	50.5	52.5
Customer deposits	11.2	13.1
Deferred tax liabilities	—	10.6
Accrued liabilities:		
Compensation and withholding taxes	25.7	25.8
Other current liabilities	35.4	36.2
Current liabilities of discontinued operations	2.4	6.4
Total current liabilities	132.6	149.6
Long-term borrowings and capital lease obligations	84.7	152.8
Long-term pension and other post-retirement benefit liabilities	36.9	84.1
Deferred gain	16.5	18.4
Deferred tax liabilities	—	35.8
Other long-term liabilities	17.0	17.0
Long-term liabilities of discontinued operations	6.1	8.6
Total liabilities	293.8	466.3
Shareholders' equity:		
Common stock, $1 par value per share, 90.0 shares authorized, 63.8 and 63.4 shares issued, respectively	63.8	63.4
Capital in excess of par value	177.0	171.1
Retained earnings	168.9	8.9
Treasury stock, at cost, 1.0 million and 0.9 million shares, respectively	(16.8)	(16.4)
Accumulated other comprehensive loss	(41.9)	(80.1)
Total shareholders' equity	351.0	146.9

Total liabilities and shareholders' equity	$644.8	$613.2

See notes to consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(in millions)	Common Stock Par Value	Capital in Excess of Par Value	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Loss	Total
Balance at December 31, 2010	$63.0	$164.7	$50.6	$(15.8)	$(41.6)	$220.9
Net loss			(14.2)			(14.2)
Total other comprehensive loss					(34.8)	(34.8)
Stock-based payments:						
Stock-based compensation		2.0				2.0
Stock awards	0.1	0.9				1.0
Shares received in connection with vesting of awards				(0.3)		(0.3)
Common stock canceled		0.1				0.1
Balance at December 31, 2011	63.1	167.7	36.4	(16.1)	(76.4)	174.7
Net loss			(27.5)			(27.5)
Total other comprehensive loss					(3.7)	(3.7)
Stock-based payments:						
Stock-based compensation		3.1				3.1
Stock awards	0.3	0.3		(0.3)		0.3
Balance at December 31, 2012	63.4	171.1	8.9	(16.4)	(80.1)	146.9
Net income			160.0			160.0
Total other comprehensive income					38.2	38.2
Stock-based payments:						
Stock-based compensation		3.6				3.6
Stock option exercises and other	0.4	2.0		(0.4)		2.0
Common stock canceled		0.3				0.3
Balance at December 31, 2013	$63.8	$177.0	$168.9	$(16.8)	$(41.9)	$351.0

See notes to consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)	For the Years Ended December 31, 2013	2012	2011
Operating activities:			
Net income (loss)	$160.0	$(27.5)	$(14.2)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Loss on discontinued operations and disposal	0.2	49.5	27.3
Depreciation and amortization	14.2	13.2	13.0
Deferred financing costs	5.0	4.4	2.0
Deferred gain	(1.9)	(1.9)	(1.9)
Stock-based compensation expense	4.0	2.6	1.8
Pension expense, net of funding	(1.3)	(5.7)	1.5
Provision for doubtful accounts	—	0.6	0.4
Deferred income taxes, including change in valuation allowance	(112.0)	(4.8)	1.8
Changes in operating assets and liabilities, net of effects from dispositions of companies:			
Accounts receivable	2.6	8.7	(27.3)
Inventories	10.5	(14.5)	3.4
Other current assets	3.8	(1.4)	(4.3)
Accounts payable	(2.5)	2.6	3.7
Customer deposits	(2.1)	(1.5)	4.6
Accrued liabilities	(0.9)	17.3	(1.5)
Income taxes	(0.6)	8.6	2.7
Other	1.3	(1.0)	1.1
Net cash provided by continuing operating activities	80.3	49.2	14.1
Net cash used for discontinued operating activities	(5.5)	(26.0)	(10.3)
Net cash provided by operating activities	74.8	23.2	3.8
Investing activities:			
Purchases of properties and equipment	(17.0)	(13.0)	(13.5)
Proceeds from sales of properties and equipment	0.1	1.8	1.9
Proceeds from sale of FSTech Group	—	82.1	—
Decrease (increase) in restricted cash	1.0	(1.0)	—
Net cash provided by (used for) continuing investing activities	(15.9)	69.9	(11.6)
Financing activities:			
Increase (decrease) in revolving lines of credit, net	17.5	(173.3)	(34.6)
Increase (decrease) in short-term borrowings, net	(0.3)	(9.5)	7.6
Proceeds from issuance of long-term borrowings	75.0	215.0	—
Payments on long-term borrowings	(153.6)	(99.5)	(13.2)
Payments of debt financing fees	(6.1)	(6.9)	(2.3)
Cash dividends paid to shareholders	—	—	(3.7)
Proceeds from stock compensation activity	2.6	—	—
Other, net	(0.7)	2.4	1.3
Net cash used for continuing financing activities	(65.6)	(71.8)	(44.9)
Net cash used for discontinued financing activities	—	(0.9)	(0.6)

Net cash used for financing activities	(65.6)	(72.7)	(45.5)
Effects of foreign exchange rate changes on cash and cash equivalents	0.8	(0.2)	0.7
Increase (decrease) in cash and cash equivalents	(5.9)	20.2	(52.6)
Cash and cash equivalents at beginning of year	29.7	9.5	62.1
Cash and cash equivalents at end of year	$23.8	$29.7	$9.5

See notes to consolidated financial statements.

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FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 — 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 services rendered by the Company are divided into three major operating segments: Environmental Solutions, Safety and Security Systems and Fire Rescue. 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 14, Segment Information.

Our fiscal year ends on December 31. All references to 2013, 2012, and 2011 relate to the fiscal year unless otherwise indicated.

Basis of Presentation and Consolidation

The accompanying 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 Securities and Exchange Commission ("SEC") and in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Intercompany balances and transactions have been eliminated in consolidation. The operating results of businesses divested in prior years have been excluded since the date of sale, and have been reported as discontinued operations prior to sale. See Note 11, Discontinued Operations, for further details.

Certain prior year amounts have been reclassified to conform to the current year presentation.

Non-U.S. Operations

Assets and liabilities of non-U.S. subsidiaries, other than those whose functional currency is the U.S. dollar, are translated at current exchange rates with the related translation adjustments reported in shareholders' equity as a component of accumulated other comprehensive loss. Statements of operations accounts are translated at the average exchange rate during the period. Non-monetary assets and liabilities are translated at historical exchange rates. Relating to transactions that are denominated in a currency other than the functional currency, the Company incurs foreign currency transaction gains (losses), which are recognized within earnings as incurred. For the years ended December 31, 2013, 2012, and 2011, the Company incurred foreign currency transaction losses, included in other expense, net in the consolidated statements of operations, of $0.3 million, $0.6 million, and $0.3 million, respectively.

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.

Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less, when purchased, to be cash equivalents. The carrying amounts of cash and cash equivalents and restricted cash approximate fair value because of the short-term maturity and highly liquid nature of these instruments.

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Restricted Cash
Restricted cash of $1.0 million at December 31, 2012 consisted of cash deposited with various financial institutions that was pledged as collateral for the Company's cash-collateralized letters of credit related to equipment and service performance guarantees.
Accounts Receivable
The Company carries its accounts receivable at their face amounts less an allowance for doubtful accounts for estimated losses as a result of a customer's inability to make required payments. Management evaluates the aging of the accounts receivable balances, the financial condition of its customers, historical trends and the time outstanding of specific balances to estimate the amount of accounts receivables that may not be collected in the future and records the appropriate provision.
Inventories
The Company's inventories are valued at the lower of cost or market. Cost is determined using the first-in, first-out ("FIFO") method. Included in the cost of inventories are raw materials, direct wages, and associated production costs.
Properties and Equipment
Properties and equipment are stated at cost. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets. Useful lives range from eight to 40 years for buildings and three to 15 years for machinery and equipment. Leasehold improvements are depreciated over the shorter of the remaining life of the lease or the useful life of the improvement. Depreciation expense was $14.0 million, $12.1 million, and $11.7 million in the years ended December 31, 2013, 2012, and 2011, respectively.
Property and equipment is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.
Goodwill
Goodwill represents the excess of the cost of an acquired business over the amounts assigned to its net assets. Goodwill is not amortized but is tested for impairment at a reporting unit level on an annual basis or when an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company performs its annual goodwill impairment test as of October 31.
In 2012, the Company adopted an amendment to Accounting Standards Codification ("ASC") 350, Intangibles — Goodwill and Other. The Company determined through its qualitative assessment during 2013 that it is not "more likely than not" that the fair values of certain of its reporting units were less than their carrying values. As a result, the Company was not required to perform the two-step impairment test described below for these reporting units.
For the remaining reporting unit in 2013, and for all reporting units in 2012 and 2011, goodwill was tested for impairment based on a two-step test. The first step, used to identify potential impairment, compares the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is not impaired and the second step of the impairment test is unnecessary. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss, if any. The second step compares the implied fair value of reporting unit goodwill with the carrying amount of that goodwill. If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess.
The Company generally determines the fair value of its reporting units using two valuation methods: the "Income Approach — Discounted Cash Flow Analysis" method, and the "Market Approach — Guideline Public Company Method."
Under the "Income Approach — Discounted Cash Flow Analysis" method, the key assumptions consider projected sales, cost of sales and operating expenses. These assumptions were determined by management utilizing our internal operating plan, growth rates for revenues and operating expenses, and margin assumptions. An additional key assumption under this approach is the discount rate, which is determined by looking at current risk-free rates of capital, current market interest rates, and the evaluation of risk premium relevant to the business segment. If our assumptions relative to growth rates were to change, our fair value calculation may change, which could result in impairment.

Under the "Market Approach — Guideline Public Company Method," the Company identified several publicly traded companies, including Federal Signal, which we believe have sufficiently relevant similarities. For these companies, the Company calculated the mean ratio of invested capital to revenues and invested capital to EBITDA. Similar to the income

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approach discussed above, sales, cost of sales, operating expenses, and their respective growth rates are key assumptions utilized. The market prices of the Company's common stock and other guideline companies are additional key assumptions. If these market prices increase, the estimated market value would increase. Conversely, if market prices decrease, the estimated market value would decrease.

The results of these two methods are weighted based upon management's evaluation of the relevance of the two approaches. In the 2013 evaluation, management used a combination of the income and market approaches to determine the reporting unit's fair value.

The Company had no goodwill impairments for its continuing operations in 2013, 2012, or 2011. Adverse changes to the Company's business environment and future cash flows could cause us to record impairment charges in future periods, which could be material. See Note 4, Goodwill, for for a summary of the Company's goodwill by segment and Note 11, Discontinued Operations, for a discussion of impairment charges recorded for the discontinued Federal Signal Technologies ("FSTech") Group in 2011.

Pensions

The Company sponsors domestic and foreign defined benefit pension plans. Major assumptions used in the accounting for these employee benefit plans include the discount rate, expected return on plan assets, and rate of increase in employee compensation levels. A change in any of these assumptions would have an effect on net periodic pension costs.

The weighted-average discount rate used to measure pension liabilities and costs is selected using a hypothetical portfolio of high quality bonds that would provide the necessary cash flows to match the projected benefit payments of the plans. The discount rate represents the rate at which our benefit obligations could effectively be settled as of the year-end measurement date. The weighted-average discount rate used to measure pension liabilities increased from 2012 to 2013. See Note 7, Pensions, for further discussion.

Stock-based Compensation Plans

The Company has various stock-based compensation plans, described more fully in Note 8, Stock-Based Compensation. The fair value of stock options is determined using a Black-Scholes option pricing model.

Use of Estimates

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

Warranty

Sales of many of the Company's products carry express warranties based on terms that are generally accepted in the Company's marketplaces. The Company records provisions for estimated warranty, which were included within cost of sales, at the time of sale based on historical experience. The Company periodically adjusts these provisions to reflect actual experience. Infrequently, a material warranty issue can arise which is beyond the scope of the Company's historical experience. The Company records costs related to these issues as they become probable and estimable.

The Company also sells optional extended warranty contracts that extend coverage beyond the initial term of the express warranty period. At the time of sale, revenue related to the extended warranty contract is deferred and recognized as income over the life of the contract. Costs under extended warranty contracts are expensed as incurred.

Product Liability and Workers' Compensation Liability

Due to the nature of the Company's products, the Company is subject to claims for product liability and workers' compensation in the normal course of business. The Company is self-funded for a portion of these claims. The Company establishes a reserve using a third-party actuary for any known outstanding matters, including a reserve for claims incurred but not yet reported.

The Company has not established a reserve for potential losses resulting from the firefighter hearing loss litigation (see Note 13, Legal Proceedings). If the Company is not successful in its defense after exhausting all appellate options, it will record a charge for such claims, to the extent they exceed insurance recoveries, at the appropriate time.

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Revenue Recognition

Net sales consist primarily of revenue from the sale of equipment, environmental vehicles, vehicle-mounted aerial platforms, parts, service, and maintenance contracts.

The Company recognizes revenue for products when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the sales price is fixed or determinable, and (iv) collection is reasonably assured. A product is considered delivered to the customer once it has been shipped, and title and risk of loss have been transferred. For most of the Company’s product sales, these criteria are met at the time the product is shipped; however, occasionally title passes later or earlier than shipment due to customer contracts or letter of credit terms. If at the outset of an arrangement the Company determines the arrangement fee is not, or is presumed not to be, fixed or determinable, revenue is deferred and subsequently recognized as amounts become due and payable and all other criteria for revenue recognition have been met.

The Company enters into sales arrangements that may provide for multiple deliverables to a customer. These arrangements may include software and non-software components that function together to deliver the products' essential functionality. The Company identifies all goods and/or services that are to be delivered separately under the sales arrangement and allocates revenue to each deliverable based on relative fair values. Fair values are generally established using reliable third-party objective evidence, or management's best estimate of selling price, including prices charged when sold separately by the Company. In general, revenues are separated between hardware, integration, and installation services. The allocated revenue for each deliverable is then recognized using appropriate revenue recognition methods.

Net sales are presented net of returns and allowances. Returns and allowances are calculated and recorded as a percentage of revenue based upon historical returns. Net sales include sales of products and billed freight related to product sales. Freight has not historically comprised a material component of net sales.

Product Shipping Costs

Product shipping costs are expensed as incurred and were included within cost of sales.

Research and Development

The Company invests in research to support development of new products and the enhancement of existing products and services. Expenditures for research and development by the Company were $11.0 million in 2013, $10.0 million in 2012, and $12.1 million in 2011, and were included within selling, engineering, general and administrative (“SEG&A”) expenses.

Income Taxes

We file a consolidated U.S. federal income tax return for Federal Signal Corporation and its eligible domestic subsidiaries. Our non-U.S. subsidiaries file income tax returns in their respective local jurisdictions. We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax benefit carryforwards. Deferred tax assets and liabilities at the end of each period are determined using enacted tax rates expected to apply to taxable income in the period in which the deferred tax liability or asset is expected to be settled or realized. A valuation allowance is established or maintained when, based on currently available information and other factors, it is more likely than not that all or a portion of a deferred tax asset will not be realized.

Accounting standards on accounting for uncertainty in income taxes address the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under the guidance on accounting for uncertainty in income taxes, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The guidance on accounting for uncertainty in income taxes also provides guidance on de-recognition, classification, interest and penalties on income taxes, and accounting in interim periods.

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Litigation Contingencies

The Company is subject to various claims, other pending and possible legal actions for product liability and other damages, and other matters arising out of the conduct of the Company's business. The Company believes, based on current knowledge and after consultation with counsel, that the outcome of such claims and actions will not have an adverse effect on the Company's consolidated financial position or results of operations. 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. Professional legal fees are expensed when incurred. We accrue for contingent losses when such losses are probable and reasonably estimable. In the event that estimates or assumptions of contingent losses are different from actual results, adjustments are made in subsequent periods to reflect more current information.

NOTE 2 — INVENTORIES

The following table summarizes the components of inventories:

(in millions)	2013	2012
Raw materials	$46.1	$56.8
Work in process	24.3	26.8
Finished goods	39.4	36.3
Total inventories	$109.8	$119.9

NOTE 3 — PROPERTIES AND EQUIPMENT, NET

The following table summarizes the components of properties and equipment, net:

(in millions)	2013	2012
Land	$0.3	$0.3
Buildings and improvements	27.0	23.7
Machinery and equipment	158.2	148.4
Total property and equipment, at cost	185.5	172.4
Less: Accumulated depreciation	(121.7)	(113.1)
Properties and equipment, net	$63.8	$59.3

In July 2008, the Company entered into sale-leaseback transactions for its Elgin and University Park, Illinois plant locations. Net proceeds received were $35.8 million, resulting in a deferred gain of $29.0 million. The deferred gain is being amortized over the 15-year life of the respective leases. The balance was $16.5 million and $18.4 million at December 31, 2013 and 2012, respectively.

The Company leases certain facilities and equipment under operating leases, some of which contain options to renew. Total rental expense on all operating leases was $8.5 million in 2013, $8.9 million in 2012 and $8.8 million in 2011. Sublease income and contingent rentals relating to operating leases were insignificant. At December 31, 2013, minimum future rental commitments under operating leases having non-cancelable lease terms in excess of one year aggregated $51.8 million payable as follows: $7.5 million in 2014, $6.2 million in 2015, $6.3 million in 2016, $6.0 million in 2017, $4.8 million in 2018 and $21.0 million thereafter.

NOTE 4 — GOODWILL

The following table summarizes the carrying amount of goodwill by segment:

(in millions)	Environmental Solutions	Fire Rescue	Safety & Security Systems	Total
December 31, 2011	$120.4	$33.2	$117.0	$270.6
Translation adjustments	—	0.6	1.1	1.7
December 31, 2012	120.4	33.8	118.1	272.3
Translation adjustments	—	—	1.5	1.5
December 31, 2013	$120.4	$33.8	$119.6	$273.8

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NOTE 5 — DEBT

The following table summarizes the components of long-term debt and capital lease obligations, net:

(in millions)	2013	2012
Senior Secured Credit Facility:		
Revolving Credit Facility	$20.0	$—
Term Loan	70.8	—
February 2012 Financing:		
ABL Facility	—	6.7
Term Loan	—	149.1
Capital lease obligations	1.3	1.7
Total long-term borrowings and capital lease obligations, including current portion	92.1	157.5
Less: Current maturities	(7.0)	(4.2)
Less: Current capital lease obligations	(0.4)	(0.5)
Total long-term borrowings and capital lease obligations, net	$84.7	$152.8

As more fully described within Note 1, Significant Accounting Policies, the Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The carrying value of short-term debt approximates fair value due to its short maturity (Level 2 input). 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 fair values of the Company’s financial instruments:

	2013		2012	
(in millions)	Notional Amount	Fair Value	Notional Amount	Fair Value
Short-term debt	$—	$—	$0.3	$0.3
Long-term debt [1]	92.1	92.1	157.5	208.2

(1) Long-term debt includes current portions of long-term debt and current portions of capital lease obligations of $7.4 million and $4.7 million as of December 31, 2013 and 2012, respectively.

On February 22, 2012, the Company entered into a Credit Agreement by and among the Company, as borrower, General Electric Capital Corporation, as a co-collateral agent, and Wells Fargo Capital Finance, LLC, as administrative agent and co-collateral agent, providing the Company with a $100.0 million secured credit facility (the “ABL Facility”). On February 22, 2012, the Company also entered into a Financing Agreement by and among the Company, as borrower, certain subsidiaries of the Company, as guarantors, the lenders party thereto (the “Term Lenders”) and TPG Specialty Lending, Inc., as administrative agent, collateral agent and sole lead arranger, pursuant to which the Term Lenders agreed to provide the Company with a $215.0 million term loan (the “2012 Term Loan”).

On March 13, 2013, the Company entered into a new Credit Agreement by and among the Company, as borrower, the lenders referred to therein, as lenders, Wells Fargo Bank, National Association, as administrative agent, swingline lender and issuing lender, General Electric Capital Corporation, as syndication agent, and Wells Fargo Securities, LLC and GE Capital Markets, Inc., as joint lead arrangers and joint book managers, providing the Company with a new $225.0 million senior secured credit facility (the “Senior Secured Credit Facility”) comprised of a five-year fully funded term loan of $75.0 million and a five-year $150.0 million revolving credit facility under which borrowings may be made from time to time during the term of the Senior Secured Credit Facility.

The Company used the proceeds from the Senior Secured Credit Facility to (i) repay outstanding balances of the ABL Facility; (ii) repay outstanding balances under the 2012 Term Loan; (iii) finance the ongoing general corporate needs of the Company and its subsidiaries; and (iv) pay fees and expenses associated with repayment of amounts due under the ABL Facility and 2012 Term Loan, including the payment of approximately $4.2 million in resulting breakage fees and premiums under the 2012 Term Loan, and pay fees and expenses associated with the Senior Secured Credit Facility.

The Senior Secured Credit Facility is a five-year senior secured credit facility 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

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subsidiaries and certain of the first-tier foreign subsidiaries, subject to certain exclusions. The Senior Secured Credit Facility requires equal quarterly installment payments against the $75.0 million term loan that began on June 30, 2013 based on an amortization schedule. Year 1 of the Senior Secured Credit Facility amortization schedule requires 7.5% of the original term loan amount to be repaid, years 2 and 3 require 10.0% of the original term loan to be repaid, years 4 and 5 require 12.5% of the original term loan to be repaid, with the remaining balance to be repaid on the maturity date of March 13, 2018.

The Senior Secured Credit Facility provides for loans and letters of credit in an amount up to an aggregate availability under the revolving credit facility of $150.0 million, with a sub-limit of $50.0 million for letters of credit. Borrowings under the entire Senior Secured Credit Facility 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 1.00% to 2.00% for base rate borrowings and 2.00% to 3.00% for LIBOR borrowings. The Company must also pay a commitment fee to the lenders equal to a range of 0.25% to 0.45% per annum on the unused portion of the $150.0 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 allowed to prepay in whole or in part advances under the revolving credit facility portion without penalty or premium other than customary "breakage" costs with respect to LIBOR loans.

The Senior Secured Credit Facility requires the Company to comply with financial covenants related to the maintenance of a minimum fixed charge coverage ratio and maximum leverage ratio. The financial covenants are measured at each fiscal quarter-end. Restricted payments, including dividends, shall be permitted only if the pro-forma leverage ratio after giving effect to such payment is less than 3.25x, pro-forma compliance after giving effect to such payment is maintained for all other financial covenants and there are no existing defaults under the Senior Secured Credit Facility. The Company was in compliance with all of its debt covenants as of December 31, 2013.

In the first quarter of 2013, upon execution of the Company's new debt agreements, the Company recorded $8.7 million of costs related to the termination of its prior debt agreements. The costs included a $4.2 million early termination penalty payment which was equal to 2.75% of the outstanding balance of the 2012 Term Loan and a $4.5 million write-off of the remaining unamortized deferred financing costs related to the ABL Facility and 2012 Term Loan.

The Company incurred $1.9 million of debt issuance costs associated with the execution of the Senior Secured Credit Facility. Financing costs incurred in connection with the Senior Secured Credit Facility are deferred and amortized over the remaining life of the new debt.

As of December 31, 2013, there was $20.0 million of cash drawn and $26.4 million of undrawn letters of credit under the $150.0 million revolving credit facility portion of the Senior Secured Credit Facility, with $103.6 million of net availability for borrowings. As of December 31, 2013, no amounts were drawn against the Company's non-U.S. lines of credit which provide for borrowings up to $15.3 million.

For the years ended December 31, 2013, 2012, and 2011, gross borrowings under the Company's domestic revolving credit facility were $123.7 million, $116.7 million, and $146.4 million, respectively. For the years ended December 31, 2013, 2012, and 2011, gross payments under the Company's domestic revolving credit facility were $106.2 million, $290.0 million, and $181.0 million, respectively.

Aggregate maturities of total borrowings amount to approximately $7.4 million in 2014, $7.9 million in 2015, $9.3 million in 2016, $9.5 million in 2017, and $58.0 million in 2018 and thereafter.

Included in current maturities are $7.0 million of term loan debt and $0.4 million of capital lease obligations.

The Company paid interest of $9.4 million in 2013, $20.6 million in 2012, and $16.1 million in 2011. The weighted average interest rate on long-term borrowings, including the effects of the interest rate swap, was 2.75% at December 31, 2013.

Interest Rate Swap

On March 13, 2013, the Company entered into an interest rate swap (the "Swap") with a notional amount of $75.0 million, as a means of fixing the floating interest rate component on $75.0 million of its variable-rate debt under the Senior Secured Credit Facility. The Swap is designated as a cash flow hedge, with a termination date of March 13, 2018. 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 income (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.

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As more fully described within Note 1, Significant Accounting Policies, 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 December 31, 2013, the fair value of the Swap, included in deferred charges and other long-term assets on the consolidated balance sheet, 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 income during the year ended December 31, 2013.

NOTE 6 — INCOME TAXES

The provision (benefit) for income taxes from continuing operations for each of the three years in the period ended December 31 consisted of the following:

(in millions)	2013	2012	2011
Current:			
Federal	$—	$(1.8)	$(3.8)
Foreign	2.4	3.2	2.1
State and local	1.0	0.1	0.3
	3.4	1.5	(1.4)
Deferred:			
Federal	$(112.1)	$2.1	$4.7
Foreign	0.2	0.3	0.2
State and local	1.3	—	—
	(110.6)	2.4	4.9
Total income tax (benefit) provision	$(107.2)	$3.9	$3.5

Differences between the statutory federal income tax rate and the effective income tax rate from continuing operations for each of the three years in the period ended December 31 are summarized below:

	2013	2012	2011
Statutory federal income tax rate	35.0 %	35.0 %	35.0 %
State income taxes, net of federal tax benefit	2.7	1.0	0.9
Valuation allowance	(231.7)	41.3	8.8
Domestic production deduction	(1.2)	—	—
Bad debt deduction	—	(24.9)	—
Asset dispositions and write-offs	(3.0)	(29.5)	—
Repatriation effects	1.5	—	—
Tax reserves	—	(1.0)	4.1
R&D tax credits	(1.5)	—	(4.1)
Foreign tax rate effects	(4.4)	(7.2)	(22.5)
Other, net	0.3	0.4	(1.1)
Effective income tax rate	(202.3)%	15.1 %	21.1 %

Income from continuing operations before taxes for each of the three years in the period ended December 31 consisted of the following:

(in millions)	2013	2012	2011
U.S.	$38.9	$10.0	$2.5
Non-U.S.	14.1	15.9	14.1
	$53.0	$25.9	$16.6

ASC Topic 740, Income Taxes, requires that the future realization of deferred tax assets depends on the existence of sufficient taxable income in future periods. Possible sources of taxable income include taxable income in carryback periods, the future reversal of existing taxable temporary differences recorded as a deferred tax liability, tax-planning strategies that generate future income or gains in excess of anticipated losses in the carryforward period and projected

future taxable income. If, based upon all available evidence, both positive and negative, it is more likely than not such deferred tax assets will not be realized, a valuation allowance is recorded. Significant weight is given to positive and negative evidence that is objectively verifiable. A

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company's three-year cumulative loss position is significant negative evidence in considering whether deferred tax assets are realizable and the accounting guidance restricts the amount of reliance the Company can place on projected taxable income to support the recovery of the deferred tax assets.

Throughout 2012 and 2011, the Company was in a three-year cumulative domestic loss position and continued to maintain a valuation allowance against domestic deferred tax assets due the uncertainty of the realization of certain deferred tax assets. The valuation allowance was initially recorded in 2010, and in 2011 and 2012, the Company continued to adjust its valuation allowance as the deferred tax assets increased or decreased, resulting in effectively no tax expense or benefit being recorded for domestic operations. However, in 2011 and 2012, the Company did record tax expense for the increase in the deferred tax liabilities of its domestic indefinite lived intangibles. Furthermore, an income tax provision was recorded in each of the three years in the period ended December 31, 2013 for foreign operations that were not in a cumulative loss position.

We continue to evaluate the need to maintain a valuation allowance for deferred tax assets based on our assessment of whether it is more likely than not that deferred tax benefits will be realized through the generation of future taxable income. Appropriate consideration is given to all available evidence, both positive and negative, in assessing the need for a valuation allowance.

In the second quarter of 2013, this evaluation resulted in the determination that $102.4 million of our valuation allowance on U.S. deferred tax assets could be released. The qualitative and quantitative analysis of current and expected domestic earnings, industry and market trends, tax planning strategies, and general business risks resulted in a more likely than not conclusion of being able to realize a significant portion of our U.S. deferred tax assets. We have been able to sustain positive earnings despite low demand for products and services that has occurred in many of our markets during the current and previous three years. Our earnings have become positive on a cumulative basis through this period. In addition, market demand and our performance in many of our markets have improved during the current year, and demand and earnings performance are expected to continue into the foreseeable future. In addition, in 2012, we exited a business segment that had produced losses.

Upon releasing the significant portion of our valuation allowance on U.S. deferred tax assets in the second quarter of 2013, a valuation allowance of $10.4 million was maintained in accordance with the guidance provided in ASC 740-270-25-4 and was released through the effective tax rate as domestic income is recognized throughout the course of the year. An additional $3.4 million reduction in deferred tax valuation allowances was recorded in the year ended December 31, 2013.

In the fourth quarter of 2013, the Company also executed a tax planning strategy that resulted in the release of $6.7 million of valuation allowance that was previously recorded against the Company's foreign tax credits, which would have begun to expire in 2015.

During the year ended December 31, 2013, changes in the United Kingdom ("U.K.") and Finland tax rates were enacted. As a result, the Company recognized income tax expense of $0.8 million and an income tax benefit of $0.8 million related to the decrease in deferred tax assets and liabilities in the U.K. and Finland, respectively.

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Deferred income tax assets and liabilities at December 31 are summarized as follows:

(in millions)	2013	2012
Deferred tax assets:		
Depreciation and amortization	$10.8	$12.5
Accrued expenses	28.8	27.9
Net operating loss, capital loss, alternative minimum tax, research and development, and foreign tax credit carryforwards	62.8	75.0
Definite lived intangibles	1.7	1.8
Pension benefits	23.3	31.1
Other	1.1	0.3
Deferred revenue	0.1	0.1
Gross deferred tax assets	128.6	148.7
Valuation allowance	(9.8)	(131.8)
Total deferred tax assets	118.8	16.9
Deferred tax liabilities:		
Depreciation and amortization	(3.7)	(5.0)
Expenses capitalized for book	(1.0)	(2.1)
Pension benefits	(11.5)	—
Indefinite lived intangibles	(56.8)	(56.2)
Other	(0.3)	—
Gross deferred tax liabilities	(73.3)	(63.3)
Net deferred tax assets (liabilities)	$45.5	$(46.4)

The deferred tax asset for tax loss carryforwards at December 31, 2013, includes federal net operating loss carryforwards of $7.5 million, which begin to expire in 2026, state net operating loss carryforwards of $7.7 million, which will begin to expire in 2014, foreign net operating loss carryforwards of $5.2 million of which $0.4 million has an indefinite life. The deferred tax asset for tax credit carryforwards includes U.S. research tax credit carryforwards of $7.9 million, which will begin to expire in 2019, U.S. foreign tax credits of $31.0 million, which will begin to expire in 2015, alternative motor vehicle credits of $0.2 million, which will begin to expire in 2029, and U.S. alternative minimum tax credit carryforwards of $3.3 million with no expiration.

The deferred tax asset for tax loss carryforwards at December 31, 2012, include federal net operating loss carryforwards of $20.9 million, which begin to expire in 2018, state net operating loss carryforwards of $2.2 million, which will begin to expire in 2019; foreign net operating loss carryforwards of $8.2 million of which $0.5 million has an indefinite life and $7.7 million which will expire in 2030; and $12.8 million for capital loss carryforwards which will expire in 2013. The deferred tax asset for tax credit carryforwards includes U.S. research tax credit carryforwards of $6.3 million, which will begin to expire in 2022, U.S. foreign tax credits of $21.1 million, which will begin to expire in 2015 and U.S. alternative minimum tax credit carryforwards of $3.3 million with no expiration.

We continue to maintain a valuation allowance on certain state and foreign (principally Spain) deferred tax assets that we believe, on a more likely than not basis, will not be realized. Valuation allowances totaling $9.8 million have been established at December 31, 2013 and include $4.7 million related to state net operating loss carryforwards, $5.1 million related to foreign net operating loss carryforwards.

The $118.8 million of deferred tax assets at December 31, 2013, for which no valuation allowance is recorded, is anticipated to be realized through future taxable income or the future reversal of existing taxable temporary differences recorded as deferred tax liabilities at December 31, 2013. Should the Company determine that it would not be able to realize its remaining deferred tax assets in the future, an adjustment to the valuation allowance would be recorded in the period such determination is made.

As of December 31, 2012, the total valuation allowance recorded was $131.8 million, which included $2.2 million related to state net operating loss carryforwards, $8.3 million related to foreign net operating loss carryforwards, $12.8

million related to capital loss carryforwards and $108.5 million related to domestic deferred tax assets.

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The net deferred tax asset at December 31 is classified in the balance sheet as follows:

(in millions)	2013	2012
Current net deferred tax assets	$12.5	$4.0
Current valuation allowance	(0.1)	(14.6)
Total current net deferred tax assets (liabilities)	$12.4	$(10.6)
Long-term net deferred tax assets	$42.8	$81.4
Long-term valuation allowance	(9.7)	(117.2)
Long-term net deferred tax assets (liabilities)	$33.1	$(35.8)

Current net deferred tax assets of $12.4 million as of December 31, 2013 are included as a component of other current assets on the consolidated balance sheet.

The Company paid income taxes of $4.0 million in 2013, $2.9 million in 2012, and $4.2 million in 2011.

In the fourth quarter of 2013, in connection with the aforementioned tax planning strategy, the Company repatriated $24.3 million of previously undistributed earnings at one of the Company's foreign subsidiaries. As a result of this change, the Company increased its deferred tax assets related to the $24.3 million by $9.9 million. The remainder of the foreign subsidiaries undistributed earnings are considered to be indefinitely reinvested.

Federal and state income taxes have not been provided on accumulated undistributed earnings of certain foreign subsidiaries aggregating approximately $59.2 million and $87.8 million at December 31, 2013 and 2012, respectively, as such earnings have been reinvested in the business. The determination of the amount of the unrecognized deferred tax liability related to the undistributed earnings is not practicable.

The following table summarizes the activity related to the Company's unrecognized tax benefits in each of the three years in the period ended December 31, 2013:

(in millions)	2013	2012	2011
Balance at January 1	$4.0	$4.3	$3.8
Increases related to current year tax	1.4	0.2	1.3
Increases from prior period positions	0.4	0.1	—
Decreases from settlements with tax authorities	—	—	(0.2)
Decreases from prior period positions	(0.2)	(0.2)	—
Decreases due to lapse of statute of limitations	(0.8)	(0.4)	(0.6)
Balance at December 31	$4.8	$4.0	$4.3

Included in the unrecognized tax benefits of $4.8 million at December 31, 2013 was $4.8 million of tax benefits that if recognized, would impact our annual effective tax rate. The Company's continuing practice is to recognize interest and penalties related to income tax matters in income tax expense. Interest and penalties amounting to $0.1 million are included in the consolidated balance sheet but are not included in the table above. Our unrecognized tax benefits may decrease by $2.3 million over the next 12 months due to potential expiration of statute of limitations and settlements with tax authorities.

We file U.S., state and foreign income tax returns in jurisdictions with varying statutes of limitations. The 2010 through 2013 tax years generally remain subject to examination by federal and most state tax authorities. In significant foreign jurisdictions, the 2009 through 2013 tax years generally remain subject to examination by their respective tax authorities.

NOTE 7 — PENSIONS

The Company and its subsidiaries sponsor a number of defined benefit pension plans covering certain salaried and hourly employees. Benefits under these plans are primarily based on final average compensation and years of service as defined within the provisions of the individual plans. The Company also participates in a retirement plan that provides defined benefits to employees under certain collective bargaining agreements.

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The following table summarizes net periodic pension expense for U.S. and non-U.S. benefit plans:

	U.S. Benefit Plan			Non-U.S. Benefit Plans		
(in millions)	2013	2012	2011	2013	2012	2011
Company-sponsored plans:						
Service cost	$—	$—	$—	$0.3	$0.2	$0.1
Interest cost	7.3	7.4	7.4	2.5	2.6	2.9
Expected return on plan assets	(8.8)	(8.1)	(7.2)	(2.6)	(2.6)	(3.3)
Amortization of actuarial loss	7.5	5.5	4.5	0.9	0.8	0.9
Total company-sponsored plans	6.0	4.8	4.7	1.1	1.0	0.6
Multi-employer plans	0.2	0.3	0.3	—	—	—
Net periodic pension expense	$6.2	$5.1	$5.0	$1.1	$1.0	$0.6

The Company, through its subsidiaries, participates in certain multiemployer pension plans under U.S. collective bargaining agreements. None of these plans are considered individually significant to the Company. Contributions to these plans totaled $0.2 million, $0.3 million, and $0.3 million for 2013, 2012, and 2011, respectively.

The following table summarizes the weighted-average assumptions used in determining pension costs:

	U.S. Benefit Plan			Non-U.S. Benefit Plans		
	2013	2012	2011	2013	2012	2011
Discount rate	4.2%	5.0%	5.8%	4.1%	4.6%	5.4%
Rate of increase in compensation levels	3.5%	3.5%	3.5%	—	—	—
Expected long term rate of return on plan assets	7.9%	8.1%	8.2%	5.1%	5.3%	6.5%

The following table summarizes the changes in the projected benefit obligation and plan assets:

	U.S. Benefit Plan		Non-U.S. Benefit Plans	
(in millions)	2013	2012	2013	2012
Benefit obligation, beginning of year	$179.7	$156.6	$65.6	$57.1
Service cost	—	—	0.3	0.2
Interest cost	7.3	7.7	2.5	2.6
Actuarial (gain) loss	(17.6)	22.4	(5.3)	5.9
Benefits and expenses paid	(10.1)	(7.0)	(3.1)	(2.9)
Translation and other	—	—	1.0	2.7
Benefit obligation, end of year	$159.3	$179.7	$61.0	$65.6
Accumulated benefit obligation, end of year	$157.3	$177.2	$60.4	$65.6

The following table summarizes the weighted-average assumptions used in determining benefit obligations as of December 31:

	U.S. Benefit Plan		Non-U.S. Benefit Plans	
	2013	2012	2013	2012
Discount rate	5.1%	4.2%	4.5%	4.1%
Rate of increase in compensation levels	3.5%	3.5%	—	—

The following summarizes the changes in the fair value of plan assets:

	U.S. Benefit Plan		Non-U.S. Benefit Plans	
(in millions)	2013	2012	2013	2012
Fair value of plan assets, beginning of year	$112.2	$97.0	$54.8	$47.9
Actual return on plan assets	20.5	13.0	7.6	5.3
Company contribution	6.8	9.2	1.7	2.3
Benefits and expenses paid	(10.1)	(7.0)	(3.1)	(2.9)
Translation and other	—	—	1.4	2.2
Fair value of plan assets, end of year	$129.4	$112.2	$62.4	$54.8

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The amounts included in translation and other in the preceding tables reflect the impact of the foreign exchange translation for the non-U.S. benefit plans.

As more fully described within Note 1, Significant Accounting Policies, the Company uses a three-level fair value hierarchy that prioritizes the inputs used to measure fair value.

Following is a description of the valuation methodologies used for assets measured at fair value for the U.S. benefit plan:

- Cash and cash equivalents are comprised of cash on deposit and a money market fund, that invests principally in short-term instruments. The money-market fund is valued at the net asset value ("NAV") of the shares in the fund.
- Equity investments represent domestic and foreign securities, including common stock, which are publicly traded on active exchanges and are valued based on quoted market prices.
- Fixed income investments include treasury bonds, which are valued based on quoted market prices in active markets, as well as investments in asset-backed securities, which are valued using models with readily observable market data as inputs.
- Mutual funds are valued by obtaining quoted prices from nationally recognized securities exchanges.

Following is a description of the valuation methodologies used for assets measured at fair value for the non-U.S. benefit plan:

- Equity investments represent domestic and foreign securities, which are publicly traded on active exchanges and are valued based on quoted market prices. The inputs used to value certain other non-U.S. investments in equity securities both in the U.K. and other overseas markets are based on observable market information consistent with Level 2 of the fair value hierarchy inputs. Specifically, they are valued using the NAV as of the last business day of the year. The NAV is based on the underlying value of the assets owned by the fund minus its liabilities, and then divided by the number of shares outstanding. The value of the underlying assets is based on quoted prices in active markets.
- Fixed income investments include treasury securities and corporate bonds, which are valued based on quoted market prices in active markets.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following summarizes the Company’s pension assets in a three-tier fair value hierarchy for its benefit plans:

	U. S. Benefit Plan							
	2013				2012			
(in millions)	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$2.9	$—	$—	$2.9	$3.7	$—	$—	$3.7
Equity securities:								
U.S. Large Cap	37.1	—	—	37.1	32.7	—	—	32.7
U.S. Small and Mid Cap	15.3	—	—	15.3	11.9	—	—	11.9
Federal Signal common stock	13.6	—	—	13.6	7.1	—	—	7.1
Developed international	9.6	0.1	—	9.7	6.6	—	—	6.6
Emerging markets	2.7	—	—	2.7	4.5	—	—	4.5
Fixed income:								
Government securities	6.8	—	—	6.8	5.7	—	—	5.7
Asset-backed securities	—	3.5	—	3.5	—	5.9	—	5.9
Mutual funds	18.0	—	—	18.0	12.2	—	—	12.2
Other investments:								
Mutual funds	19.8	—	—	19.8	21.9	—	—	21.9
Total assets at fair value	$125.8	$3.6	$—	$129.4	$106.3	$5.9	$—	$112.2

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	Non-U. S. Benefit Plans							
	2013				2012			
(in millions)	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash	$10.7	$—	$—	$10.7	$10.6	$—	$—	$10.6
Equity securities	6.3	36.9	—	43.2	4.8	29.7	—	34.5
Fixed income:								
Government securities	4.0	—	—	4.0	4.1	—	—	4.1
Corporate bonds	4.5	—	—	4.5	5.6	—	—	5.6
Total assets at fair value	$25.5	$36.9	$—	$62.4	$25.1	$29.7	$—	$54.8

The Company maintains a structured derisking investment strategy for the U.S. pension plan to improve alignment of assets and liabilities that includes: (i) maintaining a diversified portfolio that can provide a near-term weighted-average target return of approximately 7.6% or more; (ii) maintaining liquidity to meet obligations; and (iii) prudently managing administrative and management costs. The target asset allocations for the U.S. pension plan are between 40% and 60% equity securities, between 25% and 38% fixed income securities, and between 15% and 25% in other investments, with the remainder represented by cash and cash equivalents. Other investments may include mutual funds investing in real estate, commodities, or hedge funds.

Plan assets for the non-U.S. benefit plans consist principally of a diversified portfolio of equity securities, U.K. government securities, company bonds and debt securities. The target asset allocations for the non-U.S. benefit plan assets are between 50% and 70% equity securities and between 30% and 50% debt securities.

As of December 31, 2013 and 2012, equity securities included 0.9 million shares of the Company's common stock valued at $13.6 million and $7.1 million, respectively. No dividends were paid on the Company's common stock to the pension trusts in the years ended December 31, 2013 or 2012.

The following summarizes the funded status of the Company-sponsored plans:

	U.S. Benefit Plan		Non-U.S. Benefit Plans	
(in millions)	2013	2012	2013	2012
Fair value of plan assets	$129.4	$112.2	$62.4	$54.8
Benefit obligations	159.3	179.7	61.0	65.6
Funded status	$(29.9)	$(67.5)	$1.4	$(10.8)

The funded status of non-U.S. benefit plans where the accumulated benefit obligation was in excess of the fair value of plan assets was $1.1 million at December 31, 2013.

The following summarizes the amounts recognized within our consolidated balance sheets:

	U.S. Benefit Plan		Non-U.S. Benefit Plans	
(in millions)	2013	2012	2013	2012
Amounts recognized in the balance sheet include:				
Deferred charges and other assets	$—	$—	$2.5	$—
Long term pension liabilities	(29.9)	(67.5)	(1.1)	(10.8)
Net (liability) asset recorded	$(29.9)	$(67.5)	$1.4	$(10.8)
Amounts recognized in accumulated other comprehensive loss include:				
Net actuarial loss	$54.7	$91.5	$15.6	$26.8
Net amount recognized, pre-tax	$54.7	$91.5	$15.6	$26.8

The Company expects $5.2 million relating to amortization of the actuarial loss to be amortized from accumulated other comprehensive loss into net periodic benefit cost in 2014.

The Company expects to contribute up to $8.8 million to the U.S. benefit plan and up to $1.3 million to the non-U.S. benefit plans in 2014. Future contributions to the plans will be based on such factors as annual service cost, the financial return on plan assets, interest rate movements that affect discount rates applied to plan liabilities, and the value of benefit payments made.

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The following summarizes the benefits expected to be paid under the Company's defined benefit plans in each of the next five years, and in aggregate for the five years thereafter:

(in millions)	U.S. Benefit Plan	Non-U.S. Benefit Plans
2014	$8.0	$2.7
2015	8.6	2.8
2016	8.5	2.9
2017	9.1	3.0
2018	9.8	3.1
2019-2023	52.7	16.9

The Company also sponsors a defined contribution retirement plan covering a majority of its employees. Participation is via automatic enrollment; employees may elect to opt out of the plan. Company contributions to the plan are based on employees' age and service as well as a percentage of employee contributions. The cost of these plans during each of the three years in the period ended December 31, 2013, was $7.0 million in 2013, $6.3 million in 2012 and $5.8 million in 2011.

Prior to September 30, 2003, the Company also provided medical benefits to certain eligible retired employees. These benefits are funded when the claims are incurred. Participants generally became eligible for these benefits at age 60 after completing at least 15 years of service. The plan provided for the payment of specified percentages of medical expenses reduced by any deductible and payments made by other primary group coverage and government programs. Effective September 30, 2003, the Company amended the retiree medical plan and effectively canceled coverage for all eligible active employees except for retirees and a limited group that qualified under a formula based on age and years of service. Accumulated post-retirement benefit liabilities of $0.5 million and $1.0 million at December 31, 2013 and 2012, respectively, were fully accrued. The net periodic post-retirement benefit costs have not been significant during the three-year period ended December 31, 2013.

NOTE 8 — STOCK-BASED COMPENSATION

The Company's stock compensation plans, approved by the Company's shareholders and administered by the Compensation and Benefits Committee of the Board of Directors of the Company, provide for the grant of incentive and non-incentive stock options, restricted stock, and other stock-based awards or units to key employees and directors. The plans, as amended, authorize the grant of up to 7.8 million shares or units through April 2020. These share or unit amounts exclude amounts that were issued under predecessor plans.

Stock options vest equally over the three years from the date of the grant. The cost of stock options, based on their fair value at the date of grant, is charged to expense over the respective vesting periods. Stock options normally become exercisable at a rate of one-third annually and in full on the third anniversary date. Under the plans, all options and rights must be exercised within ten years from date of grant. At the Company's discretion, vested stock option holders are permitted to elect an alternative settlement method in lieu of purchasing common stock at the option price. The alternative settlement method permits the employee to receive, without payment to the Company, cash, shares of common stock, or a combination thereof equal to the excess of market value of common stock over the option purchase price. The Company has historically settled all such options in common stock and intends to continue to do so.

The weighted average fair value of options granted during 2013, 2012, and 2011 was $4.56, $2.73, and $3.12, respectively.

The fair value of each option grant was estimated using the Black-Scholes option pricing model with the following weighted average assumptions:

	2013		2012		2011	
Dividend yield	—	%	0.7	%	0.6	%
Expected volatility	59	%	59	%	52	%
Risk free interest rate	1.0	%	0.9	%	2.2	%

Weighted average expected option life in years	5.8	5.6	5.9

The expected life of options represents the weighted average period of time that options granted are expected to be outstanding giving consideration to vesting schedules and the Company's historical exercise patterns. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of the grant for periods corresponding with the expected life of the options. Expected volatility is based on historical volatility of the Company's common stock. Dividend yields are based on historical dividend payments.

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The following summarizes stock option activity in each of the three years in the period ended December 31, 2013:

	Option Shares			Weighted Average Exercise Price		
(in millions)	2013	2012	2011	2013	2012	2011
Outstanding, at beginning of year	2.3	2.0	1.9	$8.93	$10.16	$12.61
Granted	0.5	0.6	0.7	8.50	5.52	6.50
Exercised	(0.3)	—	—	7.47	—	—
Canceled or expired	(0.4)	(0.3)	(0.6)	10.94	9.88	14.02
Outstanding, at end of year	2.1	2.3	2.0	$8.63	$8.93	$10.16
Exercisable, at end of year	1.2	1.3	1.0	$9.85	$11.22	$13.12

The following table summarizes information for stock options outstanding as of December 31, 2013 under all plans:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Shares (in millions)	Weighted Average Remaining Life (in years)	Weighted Average Exercise Price	Shares (in millions)	Weighted Average Exercise Price
$0.00 — $5.00	—	7.3	$4.47	—	$4.47
5.01 — 10.00	1.5	8.0	6.72	0.6	6.21
10.01 — 15.00	0.3	4.6	11.01	0.3	10.96
15.01 — 20.00	0.3	1.7	17.17	0.3	17.17
	2.1	6.8	$8.63	1.2	$9.85

The aggregate intrinsic value of stock options outstanding and exercisable at December 31, 2013 was $6.1 million.

Restricted stock awards are granted to employees at no cost. Awards primarily cliff vest at the third anniversary from the date of award, provided the recipient is still employed by the Company on the vesting date. The cost of restricted stock awards, based on the fair market value of the underlying shares at the date of grant, is charged to expense over the respective vesting periods.

The following table summarizes restricted stock activity for the year ended December 31, 2013:

	Number of Restricted Shares (in millions)	Weighted Average Price per Share
Outstanding and non-vested, at December 31, 2012	0.3	$ 7.38
Granted	0.1	8.39
Vested	(0.2)	8.72
Outstanding and non-vested, at December 31, 2013	0.2	$ 6.85

The total compensation expense related to all stock option and stock award compensation plans was $2.6 million, $2.0 million, and $1.8 million for the years ended December 31, 2013, 2012, and 2011, respectively. Also, as of December 31, 2013, there was $1.9 million and $0.6 million of total unrecognized compensation cost related to stock options and stock awards, respectively, that is expected to be recognized over the weighted-average period of approximately 2.0 and 2.0 years, respectively.

Performance Awards

In each of the three years in the period ended December 31, 2013, the Company granted performance-based restricted stock unit awards (“PSUs”) to certain executives and other non-executive officers. The PSUs granted have a one-year performance period ending December 31 of each year, in which the Company must achieve certain earnings per share (“EPS”) from continuing operations, which is a performance condition per ASC 718, followed by a two-year service requirement (i.e., if earned, these shares would vest in full on December 31, 2013, 2014, or 2015, respectively).

The EPS threshold for the 2011 award was not met. Accordingly, the 2011 PSUs were not earned, and no compensation expense was recorded relating to the 2011 performance share grants. The EPS threshold for 2012 and 2013 were achieved at the maximum level, and 200% of the target shares were earned. Compensation expense

included in the consolidated statement of operations for the PSUs in the years ended December 31, 2013 and 2012 was $1.4 million and $0.6 million, respectively. The

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total compensation expense for these performance share units is being amortized through the end of the vesting period, which is December 31, 2014 for the 2012 grants and December 31, 2015 for the 2013 grants.

As of December 31, 2013 and 2012, there was $3.2 million and $1.8 million of total unrecognized compensation cost related to PSUs, respectively, that is expected to be recognized over the weighted-average period of 1.8 years and 2.0 years, respectively.

The following table summarizes PSU activity for the year ended December 31, 2013:

	Number of PSUs (in millions)	Weighted Average Price per Share
Outstanding and non-vested, at December 31, 2012	0.3	$5.50
Granted	0.3	8.57
Forfeited	(0.1)	6.04
Outstanding and non-vested, at December 31, 2013	0.5	$7.05

NOTE 9 — SHAREHOLDERS' EQUITY

The Company's Board of Directors has the authority to issue 90.0 million shares of common stock at a par value of $1 per share. The holders of common stock (i) may receive dividends subject to all of the rights of the holders of preference stock; (ii) shall be entitled to share ratably upon any liquidation of the Company in the assets of the Company, if any, remaining after payment in full to the holders of preference stock; and (iii) receive one vote for each common share held and shall vote together share for share with the holders of voting shares of preference stock as one class for the election of directors and for all other purposes. The Company has 63.8 million and 63.4 million common shares issued as of December 31, 2013 and 2012, respectively. Of those amounts, 62.8 million and 62.4 million common shares were outstanding as of December 31, 2013 and 2012, respectively.

The Company's Board of Directors is also authorized to provide for the issuance of 0.8 million shares of preference stock at a par value of $1 per share. The authority of the Board of Directors includes, but is not limited to, the determination of the dividend rate, voting rights, conversion and redemption features, and liquidation preferences. The Company has not designated or issued any preference stock as of December 31, 2013.

The following table summarizes the changes in each component of accumulated other comprehensive loss, net of tax:

(in millions)	Actuarial Losses	Foreign Currency Translation	Unrealized Gain (Loss) on Derivatives	Total
Balance at January 1, 2013	$(91.0)	$10.8	$0.1	$(80.1)
Other comprehensive income before reclassifications	23.9	4.5	0.2	28.6
Amounts reclassified from accumulated other comprehensive loss [(1)]	9.0	0.7	(0.1)	9.6
Net current-period other comprehensive income	32.9	5.2	0.1	38.2
Balance at December 31, 2013	$(58.1)	$16.0	$0.2	$(41.9)

(1) The amounts reclassified from the actuarial losses component of accumulated other comprehensive loss in the year ended December 31, 2013 represents $8.4 million of actuarial losses that have been included in the computation of net post-retirement pension expense for the period, as disclosed in Note 7 - Pensions, and $0.6 million of income tax expense that has been recognized as a component of income tax benefit (expense), primarily due to a change in the United Kingdom tax rate that was enacted during the year ended December 31, 2013, as disclosed in Note 6 - Income Taxes.

NOTE 10 — EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share ("EPS") is computed by dividing income or loss available to common stockholders by the weighted average number of shares of common stock outstanding for the year. Diluted EPS is computed based on

the weighted average number of shares of common stock outstanding for the year plus the effect of dilutive potential common shares outstanding during the year. Dilutive potential common shares include outstanding stock options, performance-based restricted stock unit awards, and restricted stock units and reflect the potential dilution that could occur if these awards were issued and converted into common stock. We use 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 years ended December 31, 2013, 2012, and 2011, options to purchase 0.9 million, 2.3 million, and 2.0 million

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shares of the Company's common stock, respectively, had an anti-dilutive effect on EPS, and accordingly, are excluded from the calculation of diluted EPS.

The following table reconciles net income (loss) to basic and diluted EPS:

(in millions, except per share data)	2013	2012	2011
Income from continuing operations	$160.2	$22.0	$13.1
Loss from discontinued operations and disposal, net of tax	(0.2)	(49.5)	(27.3)
Net income (loss)	$160.0	$(27.5)	$(14.2)
Weighted average shares outstanding — Basic	62.6	62.3	62.2
Dilutive effect of common stock equivalents	0.6	0.4	—
Weighted average shares outstanding — Diluted	63.2	62.7	62.2
Basic earnings (loss) per share:			
Earnings from continuing operations	$2.56	$0.35	$0.21
Loss from discontinued operations and disposal, net of tax	—	(0.79)	(0.44)
Net earnings (loss) per share	$2.56	$(0.44)	$(0.23)
Diluted earnings (loss) per share:			
Earnings from continuing operations	$2.53	$0.35	$0.21
Loss from discontinued operations and disposal, net of tax	—	(0.79)	(0.44)
Net earnings (loss) per share	$2.53	$(0.44)	$(0.23)

NOTE 11 — DISCONTINUED OPERATIONS

There were no new discontinued operations in 2013. For the year ended December 31, 2013, the Company recorded net losses from discontinued operations and disposal of $0.2 million. The losses primarily include expenses associated with special
termination benefits provided to certain employees of the former FSTech Group that were retained to assist with transition services with the acquirer. Upon conclusion of these transition services, management initiated a voluntary separation plan ("VSP"), which resulted in expense of approximately $0.6 million being recognized in the year ended December 31, 2013 when the employees accepted the terms of the VSP. The net loss from discontinued operations and disposal for the year ended December 31, 2013 also includes certain adjustments relating to assets of other previously discontinued operations.

The following tables summarizes the operating results of the Company's discontinued operations:

(in millions)	2012	2011
Federal Signal Technologies		
Net sales	$87.0	$106.9
Interest allocated to discontinued operations	4.8	—
Goodwill and intangible assets impairment	0.6	20.6
Other costs and expenses	100.0	116.2
Loss before income taxes	(18.4)	(29.9)
Income tax benefit	3.6	2.0
Loss from discontinued operations	$(14.8)	$(27.9)

(in millions)	2011
China WOFE	
Net sales	$0.2
Costs and expenses	0.5
Loss before income taxes	(0.3)
Income tax benefit	—
Loss from discontinued operations	$(0.3)

On June 21, 2012, the Company announced that it had signed a definitive agreement to sell the FSTech Group for $110.0 million, subject to working capital adjustments. In accordance with ASC Topic 360, Impairment and Disposal of Long-Lived Assets ("ASC 360"), the Company met held for sale criteria during the second quarter of 2012 and the FSTech Group was reported as a discontinued operation in the Company's condensed consolidated financial statements. In accordance with ASC

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360-10, net assets held for sale with a carrying value of $121.1 million were written down to fair value less cost to sell or $97.6 million (fair value of $101.0 million and costs to sell of $3.4 million). This write-down resulted in a $23.5 million loss for the six months ended June 30, 2012. The valuation methodology for the net assets held for sale was based upon a contract price which is an observable input (Level 2).

On September 4, 2012, the Company completed the disposition of the assets of the FSTech Group for $110.0 million in cash, subject to working capital adjustments in favor of the buyer of $5.9 million. The Company received $82.1 million in cash at closing and the remaining $22.0 million was placed into escrow as security for indemnification obligations provided by the Company pursuant to the sale agreement, including defense and other costs associated with the Neology lawsuits discussed in Note 13, Legal Proceedings. Additionally, in the third quarter of 2012, the Company recognized an additional loss related to a change in its estimate of total proceeds to be received from escrowed amounts of $5.0 million, an increase in the carrying value of the FSTech Group through the date of divestiture of $0.8 million and additional costs to sell of approximately $0.5 million. The working capital adjustment, the additional loss related to the change in estimated proceeds to be received from escrowed amounts, the increase in the carrying value of the FSTech Group and the additional costs to sell resulted in an additional loss of $12.2 million for the third quarter of 2012. The Company recorded a total loss of $34.7 million on disposal for the year ended December 31, 2012.

A significant portion of the escrow identified for general indemnification obligations is being held for a period of 18 months following the sale date with the remaining general escrow funds to be held for 36 months following the sale date. Subsequent to the settlement agreement relating to the Neology lawsuits that was reached in the second quarter of 2013, the Company received disbursement of the balance of the funds remaining in escrow that were associated with the Neology lawsuits during the third quarter of 2013. This disbursement resulted in an adjustment to the loss from discontinued operations in our financial statements and was not material to the Company's results of operations, financial position, or cash flows.

If and when any additional escrowed proceeds are released, the Company may recognize an adjustment to the loss from discontinued operations in its financial statements. The net carrying amount of the escrow receivable was classified in other current assets at December 31, 2013 and deferred charges and other long-term assets at December 31, 2012, and was $7.8 million and $8.0 million, respectively. Subsequent to December 31, 2013, the buyer made a claim of $0.8 million against the escrow identified for general indemnification obligations. The Company is currently investigating the merits of the claim. On March 4, 2014, the remaining escrow receivable balance of $7.0 million was released to the Company.

As required by ASC 350-20, goodwill of a reporting unit is to be tested for impairment between annual tests whenever events or changes in circumstances indicate that the carrying value may not be recoverable. An interim test for goodwill and indefinite-lived asset impairment was completed for the FSTech Group during the second quarter of 2012. The Company determined that the trade names associated with the FSTech Group reporting unit were impaired and recorded an impairment charge of $0.6 million. Goodwill was reviewed for impairment based on a two-step test. The first step, used to identify potential impairment, compared the fair value of the FSTech Group with its carrying amount. The carrying amount of the FSTech Group exceeded its fair value; therefore, the second step of the goodwill impairment test was required to be performed to measure the amount of impairment loss, if any. The second step compared the implied fair value of the FSTech Group goodwill with the carrying amount of that goodwill. The Company determined that the carrying amount of the goodwill was less than the implied fair value of that goodwill, and consequently was not required to recognize an impairment loss.

During the fourth quarter of 2011, the Company performed the annual assessment, determined that the goodwill and certain trade names within the FSTech Group were lower than the carrying value, and recorded impairment charges of $14.8 million and $7.4 million, respectively.

During the fourth quarter of 2010, the Company performed the annual assessment, determined that the goodwill and certain trade names within the FSTech Group reporting unit were lower than carrying value, and recorded impairment charges of $67.1 million and $11.8 million, respectively. As of December 31, 2010, the goodwill impairment charge

was an estimate. Upon completion of the detailed second step impairment analysis in the first quarter of 2011, the Company recorded an adjustment of $1.6 million which reduced a portion of the original goodwill impairment recognized during the fourth quarter of 2010.

In accordance with ASC 205-20-45-6, Allocation of Interest to Discontinued Operations, the Company has allocated interest on debt that is required to be repaid as a result of a disposal transaction to discontinued operations. The consolidated financial statements for all periods presented have been recast to present the operating results of the FSTech Group and previously divested or exited businesses as discontinued operations.

In December 2010, the Company determined that its China WOFE business was no longer strategic. The results of the China WOFE operations previously were included within the Environmental Solutions and Safety and Security Systems Groups. In 2012, the Company recorded a gain of $0.4 million on discontinued operations associated with the liquidation of the assets of the China WOFE business. The 2011 loss includes $0.5 million of costs associated with the winddown of the business.

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In May 2012, the Company sold its Pearland Texas facility, which was previously used by the Company's discontinued Pauluhn business, for proceeds of $0.9 million and recorded a pre-tax gain of $0.4 million. The Company retains certain liabilities for discontinued operations prior to January 1, 2011, primarily for environmental remediation and product liability.

Included in liabilities of discontinued operations at December 31, 2013 and 2012 is $1.4 million and $1.8 million, respectively, related to environmental remediation at the Pearland, Texas facility, and $3.6 million and $4.6 million, respectively, relating to estimated product liability obligations of the discontinued North American refuse truck body business.

NOTE 12 — RESTRUCTURING

2013 Plan

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 fourth quarter of 2013, the Company recorded expenses of $1.2 million and $0.3 million related to severance costs in the Safety and Security Systems Group and Corporate, respectively. Approximately $0.4 million of additional restructuring charges may be recognized in 2014 in the Safety and Security Systems Group in connection with the 2013 Plan.

2012 Plan

During the first quarter of 2012, the Company recorded expenses of $0.9 million related to severance costs in the Safety and Security Systems Group. These actions were completed in the fourth quarter of 2013.

During the fourth quarter of 2012, the Company recorded an additional $0.6 million related to severance costs within corporate expense. Based upon further developments, it was determined during the second quarter of 2013 that these costs were not required and the $0.6 million charge was reversed.

Restructuring reserves are included within other current liabilities on the Company's consolidated balance sheets. The following table summarizes the changes in the Company's restructuring reserves:

(in millions)	Severance (2012 Plan)	Severance (2013 Plan)	Total
Balance as of December 31, 2011	$—	$—	$—
Charges to restructuring expenses	1.5	—	1.5
Cash payments	(0.5)	—	(0.5)
Balance as of December 31, 2012	1.0	—	1.0
Charges to restructuring expenses	—	1.5	1.5
Adjustments	(0.8)	—	(0.8)
Cash payments	(0.2)	—	(0.2)
Balance as of December 31, 2013	$—	$1.5	$1.5

NOTE 13 — LEGAL PROCEEDINGS

The Company is subject to various claims, other pending and possible legal actions for product liability and other damages, and other matters arising out of the conduct of the Company's business. On a quarterly basis, the Company reviews the uninsured material legal claims against the Company. The Company accrues for the costs of such claims as appropriate and in the exercise of its 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 of the claims, the Company cannot 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 position. 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 or financial position.

The Company has been sued by firefighters seeking damages claiming 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

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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, when 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 returned 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, the trial court on March 12, 2012 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 in this trial.
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 April 23, 2013, the Illinois Appellate Court granted the Company's petition for review. Briefing on this appeal was completed during July 2013. Pursuant to Illinois law, all class proceedings in the trial court are stayed pending a final decision from the Illinois Appellate Court on this issue.
The Company has also been sued on this issue outside of the Cook County, Illinois venue. Most 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, which included reimbursements of expenses, to obtain dismissals.
Three trials occurred in Philadelphia involving these cases. 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.

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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.

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. On June 14, 2013, one of these cases was dismissed. During April through July 2013, additional cases were filed in Allegheny County, Pennsylvania. These cases involve 246 plaintiff firefighters from Pittsburgh and various defendants, including the Company. During February 2014, a new case was filed in the Court of Common Pleas, Erie County, Pennsylvania, involving 61 firefighters. These cases involve various defendants, including the Company.

Firefighters have brought hearing loss claims against the Company in jurisdictions other than Pennsylvania and Cook County. In particular, cases have been filed in New Jersey, Missouri, Maryland, and New York. All of those cases, however, were dismissed prior to trial, including four cases in the Supreme Court of Kings County, New York which were dismissed upon the Company's motion in 2008. The trial court subsequently denied reconsideration of its ruling. On appeal, the 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. In the year ended December 31, 2013, the Company recorded $0.5 million of reimbursements from CNA related to legal costs. In the years ended December 31, 2012 and 2011, the Company recorded $0.7 million and $0.8 million, respectively, of CNA reimbursements.

On July 29, 2011, Neology, Inc. ("Neology") filed a complaint against the Company in the U.S. District Court of Delaware for alleged patent infringements (the "Delaware lawsuit"). The Delaware lawsuit demanded that the Company cease manufacturing, marketing, importing or selling radio frequency identification ("RFID") systems and products that allegedly infringed certain specified patents owned by Neology, and also demanded compensation for past alleged infringement. The Company denied the allegations in the complaint. On December 2, 2011, Neology filed a motion for preliminary injunction, requesting that the court enter an order preliminarily enjoining the Company from further alleged infringement of certain Neology patents. On June 18, 2012, a U.S. District Court Magistrate issued a Report and Recommendation that the motion for a preliminary injunction be denied. On August 12, 2012, a U.S. District Court Judge adopted that Report and Recommendation. On August 20, 2012, Neology filed a motion for leave to file for partial summary judgment against the Company regarding two of the patents at issue. On September 21, 2012, a

U.S. District Court Magistrate denied the motion.

On May 21, 2012, Neology filed another complaint against the Company, also for alleged patent infringement, in the U.S. District Court for the Central District of California. On July 19, 2012, Neology filed certain amendments to that complaint. The amended complaint similarly demanded that the Company cease manufacturing, marketing, importing or selling certain RFID transponders and readers that allegedly infringed certain other specified patents owned by Neology, and also demanded compensation for past alleged infringement. The Company denied the allegations in the complaint. On September 10, 2012, the Company filed a motion requesting that the court transfer this litigation to the U.S. District Court of Delaware, where Neology filed its earlier patent infringement suit against the Company. On October 15, 2012, the court granted this motion and ordered

the transfer of this litigation to the U.S. District Court of Delaware. On November 2, 2012, the U.S. District Court of Delaware ordered the consolidation of the transferred California litigation and the Delaware lawsuit.

On February 22, 2013, Neology filed a complaint with the U.S. International Trade Commission (“ITC”) requesting that the ITC commence an investigation into alleged violations of Section 337 of the Tariff Act of 1930, as amended (the “Tariff Act”). The complaint alleged that Federal Signal Corporation, Federal Signal Technologies, LLC, Sirit Corp. and 3M Company, the acquirer of the FSTech Group, unlawfully imported into the U.S., sold for importation, and/or sold within the U.S. after importation certain RFID products and their major components, which allegedly infringed certain Neology patents. On March 26, 2013, the ITC issued a Notice of Investigation regarding the complaint filed by Neology.

The remedy requested by Neology in its complaint filed with the ITC, and the relief that can be ordered by the ITC in favor of a prevailing complainant, is prospective injunctive relief barring the products and components that allegedly violate Section 337 of the Tariff Act from importation into the U.S. Compensatory monetary relief was neither expressly sought by Neology in its complaint nor a form of relief available to a prevailing complainant. Since the disposition of the assets of the FSTech Group on September 4, 2012, as further discussed in Note 11, Discontinued Operations, the Company had not imported into the U.S. nor sold within the U.S. the products or components identified by Neology in its complaint.

On May 6, 2013, the Company, Neology, and 3M Company (“the Parties”) agreed in principle to a settlement of the Delaware lawsuit as well as the ITC investigation. The Parties thereafter finalized a confidential settlement agreement, effective June 14, 2013. On June 19, 2013, pursuant to a joint request of the Parties, the ITC terminated its investigation. On June 25, 2013, the U.S. District Court granted the Parties’ joint motion to dismiss the Delaware lawsuit.

In connection with the closing of the sale of the FSTech Group to 3M Company on September 4, 2012, 3M Company agreed to assume the defense of the Neology lawsuits. A portion of the purchase price proceeds was placed into escrow to be held for a period of 48 months as security for the indemnification obligations of the Company as well as defense and other costs associated with the Neology lawsuits and legal proceedings incident thereto, subject to early release under certain conditions. Subsequent to the settlement agreement relating to the Neology lawsuits that was reached in the second quarter of 2013, the Company received disbursement of the balance of the funds remaining in escrow that were associated with the Neology lawsuits during the third quarter of 2013. This disbursement resulted in an adjustment to the loss from discontinued operations in our financial statements and was not material to our results of operations, financial position, or cash flows. Information regarding the Company’s discontinued operations is further discussed in Note 11, Discontinued Operations.

NOTE 14 — SEGMENT INFORMATION

The Company has three operating segments as defined under ASC Topic 280, Segment Reporting. The Company's reportable segments are consistent with its 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 — The Environmental Solutions Group manufactures a variety of self-propelled street cleaning vehicles, vacuum loader vehicles, municipal catch basin/sewer cleaning vacuum trucks, and waterblasting equipment. This Group sells primarily to municipal and government customers and industrial contractors. Products are sold under the Elgin®, Vactor®, Guzzler® and Jetstream® brand names. The Group primarily manufactures its vehicles and equipment in the United States.

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, industrial communications and command and municipal networked security. Specific products include vehicle lightbars and sirens, public warning sirens and public safety software. Products are primarily sold under the Federal Signal™, Federal Signal

VAMA™, Target Tech®, and Victor™ brand names. The Group operates manufacturing facilities in North America, Europe, and South Africa.

Fire Rescue — The Fire Rescue Group manufactures articulated and telescopic aerial platforms for rescue and fire fighting and for maintenance purposes. This Group sells to municipal and industrial fire services, civil defense authorities, rental companies, electric utilities and industrial customers. The Group manufactures in Finland and sells globally under the Bronto Skylift® brand names.

Corporate contains those items that are not included in our operating segments.

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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. Operating segment depreciation expense, identifiable assets and capital expenditures relate to those assets that are utilized by the respective operating segment. Corporate assets consist principally of cash and cash equivalents, short-term investments, notes and other receivables and fixed assets. The accounting policies of each operating segment are the same as those described in the summary of significant accounting policies.
Revenues attributed to customers located outside of the U.S. aggregated $301.1 million in 2013, $310.5 million in 2012, and $268.2 million in 2011, of which sales exported from the U.S. aggregated $131.1 million, $127.9 million, and $126.1 million, respectively.
The following tables summarize the Company's continuing operations by segment, including net sales, operating income, depreciation and amortization, total assets, and capital expenditures:

(in millions)	2013	2012	2011
Net sales:			
Environmental Solutions	$474.0	$427.8	$357.8
Safety and Security Systems	238.9	240.3	221.4
Fire Rescue	138.4	135.1	109.5
Total net sales	$851.3	$803.2	$688.7
Operating income:			
Environmental Solutions	$58.2	$42.0	$24.5
Safety and Security Systems	26.1	27.9	21.5
Fire Rescue	9.0	8.9	6.6
Corporate and eliminations	(22.7)	(27.3)	(19.4)
Total operating income	70.6	51.5	33.2
Interest expense	8.8	21.4	16.4
Debt settlement charges	8.7	3.5	—
Other expense, net	0.1	0.7	0.2
Income before income taxes	$53.0	$25.9	$16.6

(in millions)	2013	2012	2011
Depreciation and amortization:			
Environmental Solutions	$6.1	$5.4	$5.2
Safety and Security Systems	4.2	4.3	4.4
Fire Rescue	3.2	2.6	2.5
Corporate and eliminations	0.7	0.9	0.9
Total depreciation and amortization	$14.2	$13.2	$13.0

(in millions)	2013	2012	2011
Total assets:			
Environmental Solutions	$236.0	$237.5	$231.7
Safety and Security Systems	213.4	209.5	200.3
Fire Rescue	116.4	122.5	117.3
Corporate and eliminations	73.6	41.7	24.1
Total assets of continuing operations	639.4	611.2	573.4
Total assets of discontinued operations	5.4	2.0	133.3
Total assets	$644.8	$613.2	$706.7

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(in millions)	2013	2012	2011
Capital expenditures:			
Environmental Solutions	$4.5	$6.4	$6.7
Safety and Security Systems	5.4	2.7	3.6
Fire Rescue	5.4	3.1	2.9
Corporate and eliminations	1.7	0.8	0.3
Total capital expenditures	$17.0	$13.0	$13.5

The following table summarizes net sales and long-lived assets based on geographic location of the Company's subsidiaries:

(in millions)	2013	2012	2011
Net sales:			
United States	$550.2	$492.7	$420.5
Europe/Other	244.6	259.0	229.0
Canada	56.5	51.5	39.2
Total net sales	$851.3	$803.2	$688.7

(in millions)	2013	2012	2011
Long-lived assets (excluding deferred tax and intangible assets):			
United States	$46.1	$54.5	$45.4
Europe	21.9	16.8	16.0
Other	0.4	0.5	0.6
Total long-lived assets	$68.4	$71.8	$62.0

NOTE 15 — COMMITMENTS AND CONTINGENCIES

Guarantees

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 December 31, 2013, the Company had outstanding performance and financial standby letters of credit aggregating $28.8 million and outstanding bid and performance bonds aggregating $17.4 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.

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 ten 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 the number of units under warranty from time to time, historical and anticipated rates of warranty claims, and 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)	2013	2012
Balance at January 1	$6.8	$6.7
Provisions to expense	10.1	5.8
Actual costs incurred	(8.5)	(5.7)
Balance at December 31	$8.4	$6.8

In the year ended December 31, 2013, an accrual of $0.8 million was recorded in our Environmental Solutions Group in connection with a specific warranty matter. The accrual recorded at December 31, 2013 represents management's best estimate of the probable liability. The Company’s estimate may change in the near term as more information becomes available;

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however, the costs are not expected to have a material adverse effect on the Company's results of operations, financial position or liquidity.

Environmental Liabilities

The Company retained an environmental consultant to conduct an environmental risk assessment at the Pearland, Texas facility. The facility, which was previously used by the Company's discontinued Pauluhn business, manufactured marine, offshore and industrial lighting products. The Company sold the facility in May 2012. While the Company has not finalized its plans, it is probable that the site will require remediation. As of December 31, 2013 and 2012, $1.4 million and $1.8 million, respectively, of reserves related to the environmental remediation of the Pearland facility are included in liabilities of discontinued operations on the 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 liquidity.

NOTE 16 — NEW ACCOUNTING PRONOUNCEMENTS

In January 2013, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2013-01, Balance Sheet (Topic 210), Clarifying the Scope of Disclosures about Offsetting Assets and Liabilities. This update further clarified the guidance previously issued under ASU No. 2011-11, which required both gross and net presentation of offsetting assets and liabilities. The new requirements were effective retrospectively for fiscal years beginning on or after January 1, 2013, and for interim periods within those fiscal years. As the guidance impacted disclosure requirements only, the Company's adoption of the guidance on January 1, 2013 did not have an impact on its results of operations, financial position, or cash flows.

In February 2013, the FASB issued ASU No. 2013-02, Comprehensive Income (Topic 220), Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income. The guidance was issued in response to ASU No. 2011-05 and required disclosure of the effect of significant reclassifications out of accumulated other comprehensive income on the respective line items of net income, if the amounts reclassified are required under U.S. GAAP to be reclassified in their entirety to net income in the same reporting period. For other amounts not required to be reclassified to net income in their entirety in the same reporting period, or when a portion of the amount is reclassified to a balance sheet account instead of directly to income or expense, a cross reference to the related footnote disclosures for additional information should be provided. The new requirements were effective prospectively for fiscal years beginning on or after December 15, 2012, and for interim periods within those fiscal years. As the guidance impacted disclosure requirements only, the Company's adoption of the guidance on January 1, 2013 did not have an impact on its results of operations, financial position, or cash flows. For additional information, see Note 9, Shareholders' Equity.

In February 2013, the FASB issued ASU No. 2013-04, Liabilities (Topic 405), Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date. This update provides guidance for the recognition, measurement, and disclosure of obligations resulting from joint and several liability arrangements for which the total amount of the obligation within the scope of this update is fixed at the reporting date, except for obligations addressed within existing U.S. GAAP. The guidance requires an entity to measure those obligations as the sum of the amount the reporting entity agreed to pay on the basis of its arrangement among its co-obligors and any additional amount the reporting entity expects to pay on behalf of its co-obligors. The new requirements are effective for fiscal years beginning on or after December 15, 2013, and for interim periods within those fiscal years. Retrospective presentation for all comparative periods presented is required. The Company expects that the adoption of this guidance will not have a material impact on its results of operations, financial position, or cash flows.

In March 2013, the FASB issued ASU No. 2013-05, Foreign Currency Matters (Topic 830), Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity. This guidance clarifies the release of the cumulative translation

adjustment into net income when a parent either sells a part or all of its investment in a foreign entity or no longer holds a controlling financial interest in a subsidiary or group of assets that is a business within a foreign entity. The new requirements are effective prospectively for fiscal years beginning on or after December 15, 2013, and for interim periods within those fiscal years. The Company expects that the adoption of this guidance will not have a material impact on its results of operations, financial position, or cash flows.

In July 2013, the FASB issued ASU No. 2013-10, Inclusion of the Fed Funds Effective Swap Rate (or Overnight Index Swap Rate) as a Benchmark Interest Rate for Hedge Accounting Purposes. The update permits the use of the Fed Funds Effective Swap Rate to be used as a U.S. benchmark interest rate for hedge accounting purposes, as an alternative to interest rates on

direct Treasury obligations of the U.S. government or the London Interbank Offered Rate. The update also removes the restriction on using different benchmark rates for similar hedges. This guidance is effective prospectively for qualifying new or redesignated hedging relationships entered into on or after July 17, 2013. The Company's adoption of the guidance did not have an impact on its results of operations, financial position, or cash flows.

In July 2013, the FASB issued ASU No. 2013-11, Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. This update clarifies that an unrecognized tax benefit, or a portion of an unrecognized tax benefit, should be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward if such settlement is required or expected in the event the uncertain tax position is disallowed. The new requirements are effective prospectively for fiscal years beginning on or after December 15, 2013, and for interim periods within those fiscal years. The Company expects that the adoption of this guidance will not have a material impact on its results of operations, financial position, or cash flows.

In September 2013, the Internal Revenue Service ("IRS") released final tangible property regulations under Sections 162(a) and 263(a) of the Internal Revenue Code of 1986, as amended (the "Code"), regarding the deduction and capitalization of expenditures related to tangible property. The final regulations replaced temporary regulations that were issued in December 2011. The IRS also released proposed regulations under Section 168 of the Code regarding dispositions of tangible property. These final and proposed regulations will be effective for the Company's fiscal year ending December 31, 2014. The Company continues to review the regulations, but does not believe there will be a material impact on its results of operations, financial position, or cash flows when they are fully adopted.

No other new accounting pronouncements issued or effective during 2013 have had or are expected to have a material impact on the Company's results of operations, financial position, or cash flows.

NOTE 17 — SELECTED QUARTERLY DATA (UNAUDITED)

The Company reports its interim quarterly periods on a 13-week basis ending on a Saturday with the fiscal year ending on December 31. For convenience purposes, the Company uses "March 31", "June 30", "September 30" and "December 31" to refer to its results of operations for the quarterly periods then ended. In 2013, the Company's interim quarterly periods ended March 30, June 29, September 28 and December 31; and in 2012, the Company's interim quarterly periods ended March 31, June 30, September 29 and December 31, respectively.

The following table summarizes the quarterly results of operations, including income per share, for the Company for the quarterly periods of 2013 and 2012:

	2013			
(in millions, except per share data)	March 31 [(a)]	June 30 [(b)]	September 30	December 31 [(c)]
Net sales	$199.8	$222.6	$209.3	$219.6
Gross profit	46.8	51.8	50.5	56.0
Income (loss) from continuing operations	(1.1)	117.8	16.8	26.7
Gain (loss) from discontinued operations and disposal	0.5	(0.3)	(0.8)	0.4
Net income (loss)	(0.6)	117.5	16.0	27.1
Diluted earnings (loss) per share:				
Earnings (loss) from continuing operations	$(0.02)	$1.87	$0.26	$0.42
Earnings (loss) from discontinued operations	0.01	—	(0.01)	—
Net income (loss)	$(0.01)	$1.87	$0.25	$0.42

(a) (Loss) from continuing operations includes $8.7 million of debt settlement charges associated with the Company's debt refinancing in March 2013.

(b) Income from continuing operations includes $102.4 million of valuation allowance release and income of $0.6 million associated with restructuring activity.

(c) Income from continuing operations includes a tax benefit of $6.7 million associated with the release of valuation allowance previously recorded against the Company’s foreign tax credits, which would have begun to expire in 2015, following the completion of a tax planning strategy, as well as $1.2 million of restructuring charges.

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(in millions, except per share data)	2012 March 31 [a]	June 30	September 30 [b]	December 31 [c]
Net sales	$196.1	$204.4	$185.0	$217.7
Gross profit	45.3	49.2	45.6	49.7
Income from continuing operations	3.1	9.6	4.4	4.9
Loss from discontinued operations and disposal	(4.2)	(26.1)	(19.1)	(0.1)
Net (loss) income	(1.1)	(16.5)	(14.7)	4.8
Diluted earnings (loss) per share:				
Earnings from continuing operations	$0.05	$0.15	$0.07	$0.08
Earnings (loss) from discontinued operations	(0.07)	(0.41)	(0.31)	—
Net (loss) income	$(0.02)	$(0.26)	$(0.24)	$0.08

(a) Income from continuing operations includes $1.6 million of debt settlement charges associated with a prior debt refinancing and $0.9 million of restructuring charges.
(b) Income from continuing operations includes $1.9 million of debt settlement charges associated with a prior debt refinancing.
(c) Income from continuing operations includes $0.6 million of restructuring charges.

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

None.

Item 9A. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures

The Company carried out an evaluation, under the supervision and with the participation of its management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company’s “disclosure controls and procedures” (as defined in the Exchange Act Rule 13a-15(e)) as of December 31, 2013.

Based on that evaluation, the Company’s Chief Executive Officer and Chief Financial Officer concluded that the Company’s disclosure controls and procedures were effective as of December 31, 2013.

(b) Management’s Annual Report on Internal Control over Financial Reporting and Attestation Report of the Registered Public Accounting Firm

The Company’s management is responsible for establishing and maintaining an adequate system of internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f). Management conducted an assessment of the Company’s internal control over financial reporting based on the framework established by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control — 1992 Integrated Framework. Based on the assessment, management concluded that, as of December 31, 2013, the Company’s internal control over financial reporting is effective.

Deloitte & Touche LLP, an independent registered public accounting firm, has audited the consolidated financial statements included in this Annual Report on Form 10-K and, as part of their audit, has issued its report, included herein, on the effectiveness of the Company’s internal control over financial reporting. See “Report of Independent Registered Public Accounting Firm” on page 35.

(c) Changes in Internal Control over Financial Reporting

From time to time, the Company may make changes aimed at enhancing the effectiveness of the controls and to ensure that the systems evolve with the business. There were no changes in the Company’s internal control over financial reporting that occurred during the Company’s most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Item 9B. Other Information.

On March 5, 2014, the Company issued a press release announcing its financial results for the three months and year ended December 31, 2013. In addition, the presentation slides for the 2013 fourth quarter earnings call were posted on the Company's website at that time. The full text of the press release and earnings presentation is included as Exhibits 99.1 and 99.2, respectively, to this Form 10-K.

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PART III

Item 10. Directors, Executive Officers and Corporate Governance.

A list of our executive officers and biographical information appears in Item 1 of Part I of this Form 10-K.

Information regarding directors and nominees for directors is set forth in the Company's definitive proxy statement for its 2014 Annual Meeting of Stockholders and is incorporated herein by reference.

Information regarding Compliance with Section 16(a) of the Exchange Act is set forth in the Company's 2014 definitive proxy statement under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" and is incorporated herein by reference. Information regarding the Company's Audit Committee, Nominating and Governance Committee, and Compensation and Benefits Committee are set forth in the Company's 2014 definitive proxy statement under the caption "Information Concerning the Board of Directors" and is incorporated herein by reference.

The Company has adopted a code of ethics that applies to its principal executive officer, principal financial officer, and principal accounting officer. This code of ethics and the Company's corporate governance policies are posted on the Company's website at www.federalsignal.com. The Company intends to satisfy its disclosure requirements regarding amendments to or waivers from its code of ethics by posting such information on this website. The charters of the Audit Committee, Nominating and Corporate Governance Committee, and Compensation and Benefits Committee of the Company's Board of Directors are available on the Company's website and are also available in print free of charge.

Item 11. Executive Compensation.

The information contained under the captions "Information Concerning the Board of Directors," "Compensation Committee Interlocks and Insider Participation," "Compensation Discussion and Analysis," "Compensation and Benefits Committee Report" and "Executive Compensation" of the Company's 2014 definitive proxy statement is incorporated herein by reference.

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

Information regarding security ownership of certain beneficial owners, of all directors and nominees, of the named executive officers, and of directors and executive officers as a group is set forth in the Company's 2014 definitive proxy statement under the caption "Ownership of Our Common Stock" and is incorporated herein by reference.

Information regarding our equity compensation plans is set forth in the Company's 2014 definitive proxy statement under the caption "Equity Compensation Plan Information" and is incorporated herein by reference.

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

Information regarding certain relationships is hereby incorporated by reference from the Company's 2014 definitive proxy statement under the heading "Information Concerning the Board of Directors" and under the heading "Certain Relationships and Related Party Transactions."

Item 14. Principal Accountant Fees and Services.

Information regarding principal accountant fees and services is incorporated by reference from the Company's 2014 definitive proxy statement under the heading "Accounting Fees."

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PART IV

Item 15. Exhibits and Financial Statement Schedules.

1. Financial Statements

The following consolidated financial statements of Federal Signal Corporation and Subsidiaries and the report of the Independent Registered Public Accounting Firm contained under Item 8 of Part II this Form 10-K are incorporated herein by reference:

(a) Consolidated Balance Sheets as of December 31, 2013 and 2012;

(b) Consolidated Statements of Operations for the Years Ended December 31, 2013, 2012 and 2011;

(c) Consolidated Statements of Comprehensive Income (Loss) for the Years Ended December 31, 2013, 2012 and 2011;

(d) Consolidated Statements of Shareholders' Equity for the Years Ended December 31, 2013, 2012 and 2011;

(e) Consolidated Statements of Cash Flows for the Years Ended December 31, 2013, 2012 and 2011; and

(f) Notes to Consolidated Financial Statements.

2. Financial Statement Schedules

Schedule II — Valuation and Qualifying Accounts of Federal Signal Corporation and Subsidiaries for the three years ended December 31, 2013 is filed as a part of this Report in response to Item 15(a) (2):

All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore, have been omitted.

3. Exhibits

See Exhibit Index.

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SCHEDULE II
FEDERAL SIGNAL CORPORATION AND SUBSIDIARIES
Valuation and Qualifying Accounts
For the Years Ended December 31, 2013, 2012, and 2011

(in millions)	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Deductions Accounts Written off Net of Recoveries	Balance at End of Year
Allowance for doubtful accounts:				
Year ended December 31, 2013	$2.4	$—	$(0.1)	$2.3
Year ended December 31, 2012	2.4	0.6	(0.6)	2.4
Year ended December 31, 2011	2.4	0.4	(0.4)	2.4
Inventory obsolescence:				
Year ended December 31, 2013	$8.8	$3.1	$(4.0)	$7.9
Year ended December 31, 2012	7.7	4.2	(3.1)	8.8
Year ended December 31, 2011	7.4	2.3	(2.0)	7.7
Income tax valuation allowances:				
Year ended December 31, 2013	$131.8	$2.5	$(124.5)	$9.8
Year ended December 31, 2012	123.9	17.3	(9.4)	131.8
Year ended December 31, 2011	112.8	11.2	(0.1)	123.9

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Signatures

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

FEDERAL SIGNAL CORPORATION

By: /s/ Dennis J Martin
Dennis J. Martin
President and Chief Executive Officer
(Principal Executive Officer)

Date: March 5, 2014

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Company and in the capacities indicated, as of March 5, 2014.

Signature	Title
/s/ Dennis J. Martin Dennis J. Martin	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ Brian S. Cooper Brian S. Cooper	Chief Financial Officer (Principal Financial Officer)
/s/ Ian A. Hudson Ian A. Hudson	Vice President, Corporate Controller (Principal Accounting Officer)
/s/ James E. Goodwin James E. Goodwin	Chairman and Director
/s/ Charles R. Campbell Charles R. Campbell	Director
/s/ Paul W. Jones Paul W. Jones	Director
/s/ Bonnie C. Lind Bonnie C. Lind	Director
/s/ Richard R. Mudge Richard R. Mudge	Director
/s/ William F. Owens William F. Owens	Director
/s/ Brenda L. Reichelderfer Brenda L. Reichelderfer	Director
/s/ John L. Workman John L. Workman	Director

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EXHIBIT INDEX

The following exhibits, other than those incorporated by reference, have been included in the Company's Form 10-K filed with the Securities and Exchange Commission. The Company shall furnish copies of these exhibits upon written request to the Corporate Secretary at the address given on the cover page.

3.	a.	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.
	b.	Amended and Restated By-laws of the Company. Incorporated by reference to Exhibit 3.1 to the Company's Form 8-K filed February 28, 2012.
10.	a.*	Supplemental Pension Plan. Incorporated by reference to Exhibit 10.C to the Company's Form 10-K for the year ended December 31, 1995.
	b.*	Executive Disability, Survivor and Retirement Plan. Incorporated by reference to Exhibit 10.D to the Company's Form 10-K for the year ended December 31, 1995.
	c.*	Director Deferred Compensation Plan. Incorporated by reference to Exhibit 10.H to the Company's Form 10-K for the year ended December 31, 1997.
	d. *	Savings Restoration Plan, as amended and restated January 1, 2007. Incorporated by reference to Exhibit 10.FF to the Company's Form 10-K for the year ended December 31, 2008.
	e. *	First Amendment of the Federal Signal Corporation Savings Restoration Plan. Incorporated by reference to Exhibit 10.MM to the Company's Form 10-K for the year ended December 31, 2008.
	f. *	Second Amendment to Federal Signal Corporation Savings Restoration Plan. Incorporated by reference to Exhibit 10.NN to the Company's Form 10-K for the year ended December 31, 2008.
	g. *	Third Amendment to Federal Signal Corporation Savings Restoration Plan. Incorporated by reference to Exhibit 10.OO to the Company's Form 10-K for the year ended December 31, 2008.
	h. *	Executive General Severance Plan, as amended and restated August 2012. Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended June 30, 2012.
	i. *	Form of 2008 Executive Change-In-Control Severance Agreement (Tier 1) with certain executive officers. Incorporated by reference to Exhibit 10.HH to the Company's Form 10-K for the year ended December 31, 2008.
	j. *	Form of 2008 Executive Change-In-Control Severance Agreement (Tier 2) with and certain executive officers. Incorporated by reference to Exhibit 10.II to the Company's Form 10-K for the year ended December 31, 2008.
	k. *	Form of 2010 Executive Change-In-Control Severance Agreement with certain executive officers (Tier 1). Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended March 31, 2010.
	l. *	Form of 2010 Executive Change-In-Control Severance Agreement with certain executive officers (Tier 2). Incorporated by reference to Exhibit 10.2 to the Company's Form 10-Q for the quarter ended March 31, 2010.
	m. *	2005 Executive Incentive Compensation Plan (2010 Restatement). Incorporated by reference to Appendix B to the Company's Definitive Proxy statement filed on Schedule 14A filed March 25, 2010.
	n. *	Federal Signal Corporation Executive Incentive Performance Plan, as amended and restated. Incorporated by reference to Appendix C to the Company's Definitive Proxy Statement filed on Schedule 14A filed March 25, 2010.
	o.	Asset Purchase Agreement dated as of June 20, 2012, by and among 3M Company, a Delaware corporation, the Company, and certain subsidiaries of the Company identified on the signature pages thereto. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed June 25, 2012.
	p.	

	Amendment No. 1, dated as of August 3, 2012, to the Asset Purchase Agreement dated as of June 20, 2012, by and among the Company, and certain subsidiaries of the Company identified therein, in favor of 3M Company, a Delaware corporation, and one or more subsidiaries of 3M Company identified therein. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed September 7, 2012.
q.	Amendment No. 2, dated as of September 4, 2012, to the Asset Purchase Agreement dated as of June 20, 2012, by and among the Company, and certain subsidiaries of the Company identified therein, in favor of 3M Company, a Delaware corporation, and one or more subsidiaries of 3M Company identified therein. Incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed September 7, 2012.
r.	Consulting Agreement dated October 10, 2012 between the Company and Braden Waverly. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed October 12, 2012.
s.	Short Term Incentive Bonus Plan. Incorporated by reference to Exhibit 10.hh to the Company's Form 10-K filed March 15, 2013.

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	t.	Credit Agreement dated as of March 13, 2013, by and among the Company, as Borrower, the Lenders referred to therein, as Lenders, and Wells Fargo Bank, National Association, as Administrative Agent, Swingline Lender and Issuing Lender, General Electric Capital Corporation, as Syndication Agent, Wells Fargo Securities, LLC, and GE Capital Markets, Inc., as Joint Lead Arrangers and Joint Book Managers. Incorporated by reference to Exhibit 10.ii to the Company's Form 10-K filed March 15, 2013.
	u. *	Employment Letter executed April 10, 2013 between the Company and Brian S. Cooper. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed April 12, 2013.
	v. *	Federal Signal Corporation Retirement Savings Plan. Incorporated by reference to Exhibit 10.1 to the Company's Form 10-Q for the quarter ended June 30, 2013.
	w. *	Employment Letter executed August 1, 2013 between the Company and Ian A. Hudson. Incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed August 13, 2013.
	x. *	Form of Equity Award Agreements. Incorporated by reference to Exhibits 10.1, 10.2, 10.3, 10.4, 10.5, and 10.6 to the Company's Form 10-Q for the quarter ended September 30, 2013.
14.		Code of Ethics for Chief Executive Officer and Senior Financial Officers, as amended. Incorporated by reference to Exhibit 14 to the Company's Form 10-K for the year ended December 31, 2003.
21.		Subsidiaries of the Registrant.
23.1		Consent of Independent Registered Public Accounting Firm.
23.2		Consent of Independent Registered Public Accounting Firm.
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		Press Release.
99.2		Q4 Earnings Call Presentation Slides.
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.