ARMSTRONG WORLD INDUSTRIES INC
Form 10-K/A
April 30, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K/A

(Amendment No. 2)

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

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 1-2116

ARMSTRONG WORLD INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania	23-0366390
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

2500 Columbia Avenue, Lancaster, Pennsylvania	17603
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code (717) 397-0611

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

Title of each class

Common Stock ($0.01 par value)

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter time period that the registrant was required to submit such files). Yes No

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

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

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

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

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

The aggregate market value of the Common Stock of Armstrong World Industries, Inc. held by non-affiliates based on the closing price ($63.20 per share) on the New York Stock Exchange (trading symbol AWI) of June 30, 2018 was approximately $3.3 billion. As of February 19, 2019, the number of shares outstanding of the registrant's Common Stock was 48,502,391.

Explanatory Note

Armstrong World Industries, Inc. (the "Company") is filing this Amendment No. 2 on Form 10-K/A (this "Form 10-K/A") to amend its Annual Report on Form 10-K for the fiscal year ended December 31, 2018 as filed on February 25, 2019 and amended by Amendment No. 1 on Form 10-K/A on February 26, 2019 (the "Original Form 10-K"). The Company is filing this Form 10-K/A solely for timing reasons in connection with its ongoing director succession planning process in order to enable any nominee(s) approved by the Board of Directors to be presented in the Company's definitive proxy statement for the 2019 Annual Shareholders' Meeting. The Company expects to file its definitive proxy statement sometime in May for an annual meeting of its stockholders to be held on July 11, 2019. The Company is filing this Form 10-K/A for the purpose of providing the information required by Items 10 through 14 of Part III of the Original Form 10-K. This information was previously omitted from the Original Form 10-K in reliance on General Instruction G(3) to Form 10-K, which permits the above-referenced items to be incorporated in the Form 10-K by reference from our definitive proxy statement if such statement is filed no later than April 30, 2019.

The reference to the incorporation by reference to portions of the Company's definitive proxy statement on the cover page of the Original Form 10-K has been deleted by this Amendment No. 2. In accordance with Rule 12b-15 under the Exchange Act, Items 10 through 14 of Part III of the Original Form 10-K are hereby amended and restated in their entirety.

Except as described above, no other changes have been made to the Original Form 10-K, and this Form 10-K/A does not modify or update any financial results or disclosures made in the Original Form 10-K, nor does it reflect events occurring after the date of the Original Form 10-K.

ARMSTRONG WORLD INDUSTRIES, INC.

FORM 10-K/A

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PART III

ITEM 10.DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

DIRECTORS

Information concerning the members of the Board of Directors of the Company (the "Board') is provided below:

Name	Age*	Director Since	Committee(s)†	Independent^
Stan A. Askren	58	2008	MDCC‡, AC	√
Victor D. Grizzle	57	2016		
Tao Huang	56	2010	AC, FC	√
Larry S. McWilliams	63	2010		√
James C. Melville	67	2012	FC, MDCC, NGC‡	√
John J. Roberts	74	2006	AC‡, NGC	√
Gregory P. Spivy	50	2014	FC, MDCC	√
Roy W. Templin	58	2016	AC, FC‡, NGC	√
Cherryl T. Thomas	72	2016	AC, MDCC	√

* As of March 31, 2019
† Committees: AC (Audit); FC (Finance); MDCC (Management Development & Compensation); NGC (Nominating & Governance)
^ As defined in NYSE listing standards and our Corporate Governance Principles
‡ Denotes Chair of the Committee

STAN A. ASKREN

Mr. Askren is currently CEO and Founder of Quiet Trail Advisors, a private, senior level strategy and lean business advisory practice. He serves as an advisor and lean business consultant for Lean Focus, LLC. Mr. Askren served as the chairman of HNI Corporation ("HNI") from 2004 until December 31, 2018 and as CEO of HNI from 2004 until July 2018. Previously, he was the president from 2003 to April 2018, and executive vice president of HNI from 2001 to 2003. Mr. Askren had worked at HNI for 27 years, including as vice president of marketing, vice president of human resources, and as an executive vice president and president of HNI's hearth business segment. Mr. Askren has also worked in several industries and previously held multiple executive management and general management positions with Emerson Electric, Thomson S.A. and HNI. Mr. Askren also serves on the board of directors of Allison Transmission Holdings, Inc., a commercial duty automatic transmission and hybrid propulsion systems manufacturer (since 2016). Mr. Askren formerly served on the board of directors of the Iowa Heritage Foundation, the Business and Institutional Furniture Manufacturer's Association (past chair), the Iowa Business Council (past chair) and Arctic Cat

Corporation. Mr. Askren brings to our Board extensive operating, senior executive leadership, manufacturing, sales and distribution expertise, lean business expertise, as well as valuable insights from his experience as a public company chief executive officer.

VICTOR D. GRIZZLE

Mr. Grizzle was appointed as our President and Chief Executive Officer on March 30, 2016. Previously, Mr. Grizzle served as Executive Vice President and Chief Executive Officer of Armstrong Building Products, a business unit of Armstrong, since January 2011. Prior to joining Armstrong, Mr. Grizzle served as Group President of Global Engineered Support Structures Coatings & Tubing and President of International Division for Omaha at Valmont Industries, Inc., an infrastructure and agricultural equipment manufacturer, since January 2006. Prior to Valmont, he served as President of the Commercial Power Division of EaglePicher Corporation, a manufacturing and resource extractive company. Before that, Mr. Grizzle spent 16 years at General Electric Corporation, where he served as an American business leader for General Electric's Silicones Division. As President and Chief Executive Officer, Mr. Grizzle provides our Board with significant insight regarding our operations, strategic planning and operational design. In addition, Mr. Grizzle brings to our Board broad leadership and business expertise, as well as comprehensive experience in global operations and manufacturing matters.

TAO HUANG

Mr. Huang was previously the chief operating officer of Morningstar, Inc., a leading independent provider of investment research, until his retirement in December 2010. Mr. Huang spent almost 20 years with Morningstar, taking on increasing levels of responsibility from his start as an entry level technical programmer. He was named director of technology in 1992 and chief technology officer in 1996; he started Morningstar’s International Operation in 1998, held the position of president of International

Division until 2000; he was promoted as the Company's chief operating officer in October 2000 and served in this position until his retirement. Mr. Huang led Morningstar initiatives enabling significant growth, both organically and through acquisition, and oversaw continuous improvements in the operations of the firm's core businesses. Mr. Huang is a founder and managing partner of Range Light, LLC, an investment firm (since 2012). Mr. Huang also serves on the board of directors of Equity Lifestyle Properties, Inc., a publicly-traded real estate investment trust (since 2015) and Principal Mutual Funds, an asset management firm (since 2013). Mr. Huang brings to our Board expertise developed from his experience in a data-intense and technology-driven organization managing growth and integration of acquisitions, as well as experience in international operations.

LARRY S. McWILLIAMS

Mr. McWilliams has been the Co-Chief Executive Officer of Compass Marketing, Inc. since 2012, and was previously the president and chief executive officer of Keystone Foods, a producer of proteins, from May 2011 to May 2012. From May 2005 to October 2010, he served as a senior vice president at Campbell Soup Company and subsequently became the president of Campbell International, responsible for all of Campbell Soup's business in Europe, Latin America and Asia Pacific. Mr. McWilliams joined Campbell Soup in March 2001 as senior vice president – sales and chief customer officer, overseeing the company's relationships with its global retail partners. In April 2003, he assumed the position of president – North America Soup. Mr. McWilliams was named senior vice president and president – Campbell USA in March 2004. Prior to Campbell Soup, Mr. McWilliams held positions at Coca-Cola from 1995 to 2001 and the Pillsbury Company from 1993 to 1995. Mr. McWilliams has also served on the board of directors of Armstrong Flooring, Inc. ("AFI") since April 1, 2016. Mr. McWilliams formerly served on the Boards of Directors of Godiva Chocolatiers International, a privately held company, and Bob Evans Farms, a full-service restaurant company, and the Board of Governors of St. Joseph's University Food Marketing Council and the Grocery Manufacturers' Association's Industry Affairs Council. Mr. McWilliams offers our Board senior executive leadership capabilities and experience, as well as extensive knowledge of sales, marketing, customer service relationships, international markets and distribution channels.

JAMES C. MELVILLE

Mr. Melville is a member of the Minneapolis-based law firm of Kaplan, Strangis and Kaplan, P.A., where he has practiced in the corporate governance, mergers and acquisitions, securities and financial areas since 1994. Prior to joining Kaplan, Strangis and Kaplan, P.A., Mr. Melville practiced with Dorsey and Whitney in their Minneapolis and London, England offices. Mr. Melville previously served as a member of our Board from September 2009 until July 2010 and now also serves on the board of directors of AFI (since April 1, 2016). Mr. Melville is active in numerous local and civic organizations and their boards. Mr. Melville is also a National Association of Corporate Directors Board Leadership Fellow. Mr. Melville brings to our Board extensive knowledge of the law, mergers and acquisitions, executive compensation, and corporate governance matters, as well as international experience and financial acumen. He has also gained intimate knowledge of the Company through his prior service on our Board.

JOHN J. ROBERTS

Mr. Roberts served as global managing partner for PricewaterhouseCoopers LLP from 1998 until his retirement in June 2002. Mr. Roberts held numerous positions at Coopers & Lybrand LLP from 1967 until its merger with Pricewaterhouse LLP in 1998. From 1994 to 1998, Mr. Roberts served as one of three members of the Office of the chairman of Coopers & Lybrand's United States operations. Prior to that time, Mr. Roberts held other positions at Coopers & Lybrand, including deputy vice chairman, vice chairman and managing partner. While serving in various executive capacities at PricewaterhouseCoopers, Mr. Roberts performed and supervised audit, tax and business consultative services, and developed extensive expertise in public company audits and financial reporting matters. Mr. Roberts serves on the boards of directors and audit committees of the following companies: Safeguard Scientifics,

Inc., a provider of capital as well as strategic, operational and management resources to growth-stage businesses (since 2003; also serves on the compensation committee and nomination and governance committee), the Pennsylvania Real Estate Investment Trust, a business trust with primary investment focus on retail shopping malls (since 2003; also serves on the compensation committee), and Vonage Holdings Corporation, a provider of communications services (since 2004; also serves as lead director). Mr. Roberts previously served on the board of directors of Sicor, Inc. (2002 to 2004) and served as a director of our former holding company, Armstrong Holdings, Inc. (2003 to 2006). Mr. Roberts brings to our Board an extensive public accounting background, financial expertise, experience as an accounting executive and as a board member of businesses in diverse industries, and risk management, strategic planning and corporate governance capabilities.

GREGORY P. SPIVY

Mr. Spivy is a Partner of ValueAct Capital. Prior to joining ValueAct Capital in September 2004, Mr. Spivy worked with Gryphon Investors, a private equity fund with $500 million in investments. Previously, Mr. Spivy was a Managing Director at Fremont Partners, a private equity firm. Prior to joining Fremont Partners, Mr. Spivy was a Director with The Bridgeford Group, and began his career in the mergers and acquisitions department of Lehman Brothers. Mr. Spivy is the former chairman of Seitel, Inc., (from 2006 to 2017), the former chairman of MSD Performance, Inc., and a former director of Allison Transmission Holdings, Inc. (from 2015 to

2017), KAR Auction Services, Inc., MDS, Inc., MSC Software Corp. and PRA International. Mr. Spivy is also the Chair of the Board of Directors of Matriculate, a charitable organization dedicated to sending high-achieving, low-income high school students to college. Mr. Spivy brings to our Board his experience as a director of other public and private corporations, his advisory experience with ValueAct Capital's portfolio companies, as well as his extensive financial services industry experience generally.

ROY W. TEMPLIN

Mr. Templin served as Chairman of the Board of Directors of Con-Way Incorporated (NYSE:CNW), a multinational freight transportation and logistics company, from January 2014 until its acquisition by XPO Logistics Inc. in 2015. He previously served as Executive Vice President and Chief Financial Officer of Whirlpool Corporation (NYSE:WHR), a multinational manufacturer and marketer of home appliances, from 2004 to 2012, and as Vice President and Controller of Whirlpool Corporation from 2003 to 2004. Prior, he served as Vice President, Finance and Chief Accounting Officer of Kimball International, Inc. He currently serves on the Board of Trustees of the Goldman Sachs Mutual Funds. Mr. Templin brings to our Board extensive experience as a senior executive, public company board member and executive of manufacturing and distribution industries, as well as experience in risk management, strategic planning, finance, and mergers and acquisitions.

CHERRYL T. THOMAS

Ms. Thomas is the Chief Strategy Officer and Vice President of Ardmore Roderick, a Chicago-based civil engineering firm and, prior to The Roderick Group's merger with Ardmore Associates, LLC, previously served as President and Chief Executive Officer of Ardmore Associates, LLC, where she was responsible for all financial, operational and management activities since 2003. Prior to founding Ardmore Associates, Ms. Thomas served as chairman of the board of the United States Railroad Retirement Board from 1998 until 2003, and as commissioner of the department of buildings of the city of Chicago from 1989 until 1994. Ms. Thomas serves on the boards of numerous local and civic organizations and foundations, including the Lyric Opera of Chicago (since 2007), the Chicago Zoological Society (since 2000), the Polk Bros Foundation (since 2009), the Brach Foundation (since 2015) and the Big Shoulders Foundation (since 2013). Ms. Thomas brings to our Board significant senior executive leadership experience, as well as relevant experience in manufacturing, distribution and risk management.

Skills and Qualifications of Board of Directors

	Askren	Grizzle	Huang	McWilliams	Melville	Roberts	Spivy	Templin	Thomas
Public Company CEO or COO (past 5 years)	√	√							
Senior Executive Leadership	√	√	√	√		√		√	√
Manufacturing and Distribution	√	√		√				√	√
Financial Literacy	√	√	√	√	√	√	√	√	√
Significant International Experience	√	√	√	√	√			√	
Finance and Capital Markets Transactions					√	√	√	√	
Technology			√			√			
M&A			√		√	√	√	√	

Risk Management	√	√	√	√	√	√		√	√
Corporate Governance/Law	√				√	√	√	√	

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CORPORATE GOVERNANCE

CORPORATE GOVERNANCE PRINCIPLES AND OTHER CORPORATE GOVERNANCE DOCUMENTS

Our Corporate Governance Principles include guidelines regarding the responsibilities, duties, service and qualifications of our Board, the determination of a director's independence and any conflict of interests, Board access to management and independent advisors, director compensation and stock ownership requirements, Board committees and other matters relating to corporate governance. Our Corporate Governance Principles are available on our website under "About Us" and then "Governance" or at https://www.armstrongceilings.com/corporate/governance.html. Also available at the same location on our website are the charters of the Audit Committee, the Finance Committee, the Management Development and Compensation Committee ("Compensation Committee"), and the Nominating and Governance Committee ("Governance Committee") of the Board, the Armstrong Code of Business Conduct and the Armstrong Code of Ethics for Financial Professionals. Our website is not part of this Form 10-K/A and references to our website address in this Form 10-K/A are intended to be inactive textual references only.

DIRECTOR INDEPENDENCE

It is the policy of the Company that our Board consist of a majority of directors who are not employees and are independent under all applicable legal and regulatory requirements, including the independence requirements of the New York Stock Exchange ("NYSE"). For purposes of evaluating the independence of directors, in accordance with our Corporate Governance Principles, our Board will consider all relevant facts and circumstances in making an independence determination, and not merely from the standpoint of the director, but also from that of persons or organizations with which the director has an affiliation. Consistent with our Corporate Governance Principles, to be considered "independent," the Governance Committee has established qualifications to assist in the determination, which either meet or exceed the independence requirements of the NYSE.

Our Board has determined that all of our directors, with the exception of Mr. Grizzle, our President and Chief Executive Office ("CEO"), are independent under NYSE listing standards and our Corporate Governance Principles. In addition, our Board has further determined that each of the members of the Audit Committee, the Compensation Committee, the Finance Committee and the Governance Committee are independent within the meaning of the NYSE listing standards, any applicable minimum standards required by the Exchange Act, and enhanced standards required for membership on such committees by our Bylaws, namely that directors serving on such committees meet the independence criteria under both NYSE rules and Rule 10A-3(b)(1) under the Exchange Act.

BOARD'S ROLE IN RISK MANAGEMENT OVERSIGHT

Our Board oversees the Company's risk profile and management processes for assessing and managing risk, both as a full Board and through its committees, which meet regularly and report to the full Board. Management is charged with managing risk through robust internal policies and controls.

The Company has maintained an enterprise risk management program since 2005. Risk management is an integral part of the Company's culture. Management's role is to identify, mitigate, guide and review the efforts of our business units, consider whether the residual risks are acceptable, and approve plans to deal with serious risks. Our Board's role in risk management is to review the performance and functioning of the Company's overall risk management efforts and management's establishment of appropriate systems for managing risk. Specifically, our Board reviews management's:

- processes to identify matters that create inappropriate risk to achieving our business plans;
- processes to assess the likelihood and impact of such risks in order to prioritize them;
- identification of major risks and how we define “major;”
- identification of primary risk mitigation owners;
- mitigation of major risks, and our view of the resulting residual risk; and
- monitoring of major risks.

Management provides its feedback on business segment risks during periodic business reviews and annual strategic planning discussions. Senior management periodically meets with designated risk mitigation owners and assesses control measures. In addition, senior management regularly reevaluate the appropriateness of risk assessments and priorities. This process includes identifying risks that could prevent achievement of business goals or plans. Our internal audit group uses the resulting information as a basis for developing its audit plan.

Our Board periodically reviews summary reports that assess the strategic, operational, infrastructure and external risks facing the Company. Each Board committee, consistent with its charter, assists our Board in overseeing the review of certain risks that are particularly within its purview, including as described in “BOARD MEETINGS AND COMMITTEES” below.

BOARD’S ROLE IN SUCCESSION PLANNING

Our Board is actively engaged and involved in talent management. Our Board reviews the Company’s “Organization Vitality” initiatives in support of its business strategy at least annually. This includes a detailed discussion of the Company’s global leadership bench and succession plans with a focus on key positions at the senior officer level, including CEO. During 2018, our Board and the Compensation Committee met on several occasions in furtherance of these initiatives. In addition, the committees of the Board regularly discuss the talent pipeline for specific critical roles. High potential leaders are given exposure and visibility to Board members through formal presentations and informal events. More broadly, our Board is regularly updated on key talent indicators for the overall workforce, including diversity, recruiting and development programs.

BOARD LEADERSHIP STRUCTURE

Our Bylaws and Corporate Governance Principles provide our Board with the flexibility to determine what leadership structure works best for us, including whether the same individual should serve as both our Chairman and our CEO. Since 2010, our Board has determined to split the positions of Chairman and CEO. The split of these positions allows Mr. Grizzle, our President and CEO, to focus on managing the business, while Mr. McWilliams, as Chairman, oversees our Board’s functions. Our Board will continue to evaluate its leadership and governance structure within the context of the specific needs of the business, current Board composition, and the best interests of the Company and our shareholders.

Responsibilities of the Chairman include recruiting new Board members, overseeing the evaluation and compensation of the CEO, ensuring an appropriate succession plan, overseeing independent evaluation of risk, coordinating Board meeting schedules and agenda, chairing and leading the discussions at the meetings, and overseeing the annual performance evaluations of the Board, its committees and its individual members. The Chairman ensures information provided by management to the Board is sufficient for the Board to fulfill its duties and communicates with other directors on key issues and concerns outside of regularly scheduled meetings. The Chairman is also responsible for ensuring the effective functioning of the committees through appropriate delegation to, and membership of, the committees. Finally, the Chairman facilitates the independent oversight required by our Bylaws and Corporate Governance Principles, including by ensuring that:

- a majority of our directors are independent;
- all of the members of the Audit Committee, the Compensation Committee, the Finance Committee and the Governance Committee are independent directors; and
- the Board meets at regularly scheduled executive sessions, outside of the presence of management. Mr. McWilliams, our Chairman, presides at these sessions.

In addition, each of the Board’s four standing committees regularly meet at similar executive sessions, at which the respective committee chairs preside.

COMMUNICATION WITH THE BOARD

Any person who wishes to communicate with the Board, nonemployee directors as a group, or individual directors, including the Chairman, may direct a written communication to the attention of the Corporate Secretary at the Company's corporate offices at 2500 Columbia Avenue, Lancaster, Pennsylvania 17603. The Corporate Secretary will forward these communications to the intended recipient director(s), as appropriate. You may also send general messages to directors by email to directors@armstrongceilings.com. If you wish to send an email message to the Governance Committee, including a recommendation regarding a prospective director, please send the message to CorpGovernance@armstrongceilings.com. The Corporate Secretary will forward these messages, as appropriate.

SHAREHOLDER OUTREACH

The Company's relationships with its shareholders and other stakeholders are a critical part of our corporate governance profile, and the Board recognizes the value of taking their views into account. Among other things, engagement with the Company's shareholders and other stakeholders helps the Board and management to understand the larger context and impact of the Company's operations, learn about expectations for our performance, assess emerging issues that may affect our business or other aspects of our operations, and shape policy.

In 2016, we initiated a formal shareholder outreach program to obtain investor perspectives on corporate governance, our executive compensation program, sustainability and other matters. On an annual basis, we intend to continue to solicit feedback from institutional investors, including asset managers, pension funds and social responsibility investors.

BOARD MEETINGS AND COMMITTEES

The Board met five times during 2018.

There are four standing committees of the Board: the Audit Committee, the Compensation Committee, the Finance Committee and the Governance Committee, each described below.

Each standing committee has a charter and consists solely of 'independent' or 'outside' directors who meet applicable independence standards required by the NYSE, the SEC, and the Internal Revenue Service, and under our Articles of Incorporation and Bylaws. Each committee reports to the Board regularly and evaluates the effectiveness of its performance annually. The membership of each committee is determined by the Board on the recommendation of the Governance Committee. The Company's Corporate Governance Principles provide that (i) directors who are currently fully employed should not serve on more than two other corporate boards, and (ii) other directors should not serve on more than four other corporate boards. The Board, after considering the circumstances of Mr. Roberts' service on three other public company audit committees, determined that such service does not impact his ability to effectively serve on the Audit Committee.

All directors who served on the Board during 2018 participated in over 75% of the meetings of the Board and meetings of the Committees on which they served. Board members are expected to attend annual meetings in person or virtually, via the Internet. All Board members attended the annual meeting in 2018.

Audit Committee The Audit Committee met five times during 2018. The members of the Audit Committee are John J. Roberts (Chair), Stan A. Askren, Tao Huang, Roy W. Templin and Cherryl T. Thomas. During 2018, Larry S. McWilliams also served as a member of the Audit Committee until his appointment as Chairman of the Board following the 2018 Annual Meeting. Under its charter, the Audit Committee:

- oversees (i) auditing and accounting matters, including the selection, supervision and compensation of the Company's independent registered public accounting firm and other independent auditors, (ii) the scope of the annual audits, non-audit services performed by the Company's independent registered public accounting firm, and (iii) the Company's accounting practices and internal accounting controls;
- has sole authority to engage, retain and dismiss the independent registered public accounting firm;
- reviews and discusses with management and our independent registered public accounting firm the annual audited financial statements and quarterly financial statements included in our SEC filings;
- assists the Board in monitoring the integrity of the Company's financial statements and the independent registered public accounting firm's qualifications, independence and performance;
- considers risks associated with overall financial reporting, legal compliance and disclosure processes; and
- supervises and reviews the effectiveness of the Company's internal audit and compliance functions, and compliance by the Company with applicable legal and regulatory requirements.

Each member of the Audit Committee meets the NYSE and SEC financial literacy requirements. The Board has determined that each of Mr. Roberts and Mr. Templin qualifies as an "Audit Committee Financial Expert" as defined pursuant to the Exchange Act. The Audit Committee regularly meets independently with the Company's internal and independent auditors, with the leaders of the Company's compliance function, and with management.

Finance Committee The Finance Committee met five times during 2018, three of which were special meetings. The members of the Finance Committee are Roy W. Templin (Chair), Gregory P. Spivy, James C. Melville, and Tao Huang. Under its charter, the Finance Committee:

- assists the Board in its oversight of the financial management of the Company, including material and strategic financial matters;

- reviews the Company's capital structure, including with respect to its debt and equity securities, financing arrangements and credit facilities;
- reviews and considers the Company's capital expenditures, dividend policy and other forms of distributions on the Company's stock, and planning strategies; and
- reviews financial terms of certain proposed mergers, acquisitions, divestitures, strategic investments and joint ventures.

Management Development and Compensation Committee The Compensation Committee met six times during 2018, one of which was a special meeting. The members of the Compensation Committee are Stan A. Askren (Chair), James C. Melville, Gregory P. Spivy and Cherryl T. Thomas. During 2018, Larry S. McWilliams and Roy W. Templin also served as members of the Compensation Committee until their appointment as Chairman of the Board and to the Governance Committee, respectively, following the 2018 Annual Meeting. Under its charter, the Compensation Committee:

- oversees the design of our executive compensation and benefit programs and employment practices;

- administers and makes recommendations regarding our incentive and equity compensation plans;
- reviews and approves corporate goals and individual objectives relevant to the compensation of the CEO and evaluates the CEO's performance relative to those goals and objectives, and recommends CEO compensation to the independent directors based on the evaluation;
- oversees the evaluation of the other executive officers and establishes their compensation levels in collaboration with the CEO;
- reviews incentive compensation to confirm that such compensation does not encourage unnecessary risk-taking; and
- monitors senior management succession planning.

Nominating and Governance Committee The Governance Committee met five times during 2018. The members of the Governance Committee are James C. Melville (Chair), John J. Roberts and Roy W. Templin. During 2018, James J. O'Connor also served as a member of the Governance Committee until his retirement from the Board following the 2018 Annual Meeting. Under its charter, the Governance Committee:

- monitors the independence of nonemployee directors;
- reviews and evaluates director candidates and makes recommendations to the Board concerning nominees for election as Board members;
- establishes criteria for the selection of candidates to serve on the Board;
- recommends directors for appointment to Board committees;
- makes recommendations to the Board regarding corporate governance matters;
- reviews and makes recommendations to the Board regarding the compensation of nonemployee directors;
- oversees the Company's director education and orientation programs; and
- coordinates an annual self-evaluation of the performance of the Board and each committee through assistance from an independent, third-party advisor.

Other Committees In addition to the four standing committees described above, members of the Board may meet on an ad hoc basis to discuss, review and, as appropriate, approve matters through other committees established by the Board. These ad hoc committees report to the Board and may review subjects such as environmental matters, succession planning and crisis response.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

None of the members of the Compensation Committee has ever been an officer or employee of the Company or its subsidiaries, or had any relationship with the Company that requires disclosure under applicable SEC regulations.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Any related party transaction that may arise is required to be reviewed and approved by the Governance Committee, who must have no connection with the transaction. Related party transactions would include transactions by the Company or any subsidiary with any director, director nominee, executive officer, shareholders owning more than 5% of the Company's outstanding shares of common stock, per share par value $0.01 ("Common Stock"), or immediate family member of any of the foregoing, and transactions with businesses affiliated with any director or director nominee that meet the specifications in Item 404 of Regulation S-K under the Exchange Act. The Chair of the Governance Committee has authority to approve transactions involving sums less than the disclosure threshold set in Item 404. The material details of any such matters are required to be disclosed to the Governance Committee at its next regular meeting.

Following the expiration of the Nomination Agreement between ValueAct Capital and the Company in 2016, Mr. Spivy was elected to the Board and continues to receive compensation pursuant to our nonemployee director compensation program. Mr. Spivy has directed that his cash retainers be directly paid to ValueAct Capital Management, L.P., and under an agreement with ValueAct Capital, Mr. Spivy is deemed to hold it for the benefit of

ValueAct Capital Master Fund L.P., and indirectly for other members of the ValueAct Group.

POLICY ON MAJORITY VOTING IN THE ELECTION OF DIRECTORS

In February 2017, our Board adopted a Policy on Majority Voting as one of our Corporate Governance Principles. The Policy provides that in an uncontested election of directors, any nominee who receives a greater number of votes "withheld" from his or her election than votes "for" his or her election will, within 10 business days following the certification of the shareholder vote, tender his or her written resignation to the Board. Such tendered resignation will be considered by the Governance Committee taking into account any factors or other information it considers appropriate and relevant and, within 60 days following the date of the shareholders' meeting at which the election occurred, will make a recommendation to the Board concerning the acceptance or rejection of such resignation.

The Board will take formal action on the Governance Committee's recommendation no later than 90 days following the date of the shareholders' meeting at which the election occurred. The Board will consider the information, factors and alternatives considered by the Governance Committee and such additional factors, information and alternatives as the Board deems relevant.

Following the Board's decision on the Governance Committee's recommendation, the Company, within four business days after such decision is made, will publicly disclose, in a current report on Form 8-K filed with the SEC, the Board's decision, and, if applicable, the Board's reasons for rejecting the tendered resignation. A director whose resignation is accepted by the Board may not be re-appointed to fill the vacancy created by his or her resignation.

No director who is required to tender his or her resignation shall participate in the Governance Committee's deliberations or recommendation, or in the Board's deliberations or determination, with respect to accepting or rejecting his or her resignation as a director. If a majority of the members of the Governance Committee are required to tender their resignations, then the independent directors who are not required to tender their resignations will appoint an ad hoc Board committee from amongst themselves, consisting of such number of directors as they may determine to be appropriate, solely for the purpose of considering and making a recommendation to the Board with respect to the tendered resignations. If such ad hoc committee would have been created but fewer than three directors would be eligible to serve on it, then the entire Board (other than the director whose resignation is being considered) will make the determination to accept or reject the tendered resignation without any recommendation from the Committee and without the creation of an ad hoc committee.

CORPORATE ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

As a leading building products manufacturer, we are committed to operating as a strong corporate citizen across all areas of our business. This commitment is reflected in our ongoing initiatives to design and develop sustainable ceiling and wall products and solutions for every space.

Environmental Sustainability We are committed to environmental sustainability and products that promote and enable better buildings and spaces. We were the first to develop a ceiling recycling program and, since 1999, we have diverted more than 200 million square feet of reclaimed ceiling tiles from landfills. In 2017, we launched SUSTAIN™, the industry's first collection of high performance ceiling systems that are free of red list chemicals per the Living Building Challenge℠ 3.0; have product transparency disclosures like Environmental Product Declarations, Health Product Declarations and Declare℠ labels, contribute to LEED® v4 and WELL Building Standard™, meeting the most stringent sustainability compliance standards. In 2018, our Tectum® acoustical ceiling and wall panels are the first and only acoustical solution to receive Living Product Challenge certification from the International Living Future Institute.

Our effort to reduce our own environmental footprint includes:

- upcycling industry waste streams into our products so that we use more waste than we generate; several of our facilities are zero-waste;
- energy reduction improvements that seek to contribute to greenhouse gas reduction;
- water recycling and infrastructure improvements;
- the first LEED EB Platinum-certified building outside California, Energy Star rated buildings; and
- being a founding member in the U.S Green Building Council.

Material TransparencyWe are actively involved in developing tools and certifications our customers need to be able to fully assess our products including environmental product declarations and product certifications and declarations, such as Cradle to Cradle, Declare and Global GreenTagCert™ and the most stringent sustainability compliance

standards.

SafetySafety is a core value at Armstrong; our goal is to have an injury free workplace. As a result of our safety programs, which are integrated into our business from top management to our workers in manufacturing plants, our OSHA recordable rate has exceeded the manufacturing sector's standards for over a decade.

Social ImpactWe created the Armstrong World Industries Foundation as our philanthropic arm in 1985. Since its inception, the foundation has awarded in excess of $50 million to 501(c)(3) organizations in communities where employees live and work with the goal of reaching under-served young people and elevating the power and impact that design and buildings can have on people's lives.

More information about our corporate and social responsibility efforts is available in the "Sustainability" section of our website at http://www.armstrongceilings.com.

SHAREHOLDER-RECOMMENDED DIRECTOR CANDIDATES

The Governance Committee will consider director candidates nominated by shareholders. The procedures for recommending candidates are posted at https://www.armstrongceilings.com/corporate/nominating-governance-committee.html. Shareholders who wish to suggest individuals for service on the Board are requested to review Article II, Section 4 of our Bylaws and supply the

information required in (a) through (k) of that Section in a written request to the Corporate Secretary at the Company's corporate offices at 2500 Columbia Avenue, Lancaster, Pennsylvania 17603.

When evaluating the candidacy of nominees proposed by shareholders, the Governance Committee may request additional information as it may consider reasonable to determine the proposed nominee's qualifications to serve as a member of the Board.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act and the regulations thereunder require certain of our officers, as well as our directors and persons who own more than 10% of a registered class of our equity securities (collectively, the “reporting persons”) to file reports of ownership and changes in ownership with the SEC and to furnish us with copies of these reports. Based solely on our review of the copies of these reports within a prescribed period of time and written representations we received from the reporting persons, we believe that all filings required to be made by the reporting persons during or with respect to the period January 1, 2018 through December 31, 2018 were made on a timely basis.

ITEM 11. EXECUTIVE COMPENSATION

COMPENSATION DISCUSSION AND ANALYSIS

In this compensation discussion and analysis ("CD&A") section, we review the objectives and elements of our executive compensation philosophy, as well as the Company's performance and compensation decisions in 2018 relating to our named executive officers ("NEOs").

executive summary

Business Overview

We are a global leader in the design, innovation and manufacture of commercial and residential ceiling, wall and suspension system solutions (primarily mineral fiber, fiberglass wool, wood and metal).

Our fiscal year 2018 key performance highlights included:

- Adjusted EBITDA*: Adjusted Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") of $353 million on a continuing operations basis, a 10.7% improvement over 2017. The core value drivers of our business enabled the improvement, namely increases in sales volume and average unit value ("AUV") plus lower selling, general and administration ("SG&A") expenses.
- Consolidated Net Sales: Net sales increased 9.1% over 2017. The increase was driven by higher AUV in the Mineral Fiber segment, in which both mix and like-for-like pricing were positive, and higher volume growth in the Architectural Specialties segment.
- Free Cash Flow ("FCF")*: $236 million of FCF, defined as cash flow from operations minus cash flow used for investing activities, exceeded the high end of our guidance range of $145 million, a 61% improvement over 2017.
- Adjusted Earnings Per Share ("EPS")*: Adjusted EPS of $3.66, an improvement of 21% over 2017.
- Business Development: In May 2018, we acquired Plasterform, Inc., based in Ontario, Canada, a manufacturer of architectural cast ceilings, walls, facades, columns and moldings. In August 2018, we acquired Steel Ceilings, Inc., based in central Ohio, a manufacturer of aluminum and stainless metal ceilings that include architectural, radiant and security solutions.
- Share Repurchases: In 2018, we repurchased 4.7 million shares of our Common Stock or 9% of our outstanding shares under our ongoing program for a total cost of $306.5 million, or an average price of $64.74 per share.
- Dividends: On November 6, 2018, we announced a dividend program under which the company intends to pay a regular quarterly cash dividend of $0.175 per share ($0.70 per share on an annualized basis) to shareholders. We paid our first dividend under this program in December 2018.
- Footprint Optimization: We closed our St. Helens, Oregon mineral fiber manufacturing facility during the second quarter of 2018 and opened a distribution facility in Phoenix, Arizona to enhance service to our regional customers.
- International Business Divesture: In 2017, we announced the sale of our businesses and operations in Europe, the Middle East, and Africa (including Russia) and the Pacific Rim (the "International Business"), including the corresponding businesses and operations of the Worthington Armstrong Venture ("WAVE") in which we hold a fifty percent (50%) interest, to Knauf International GmbH ("Knauf"). In 2018, we entered into an amendment with Knauf

under which we received $330 million cash purchase price proceeds on an unconditioned basis. We expect the transaction to close in the first half of 2019.

Please also see our Company's Consolidated Financial Statements in our Annual Report on Form 10-K filed with the SEC on February 25, 2019.

*The Company uses these non-GAAP adjusted measures in managing the business and believes the adjustments provide meaningful comparisons of operating performance between periods. Adjusted EBITDA and Adjusted EPS exclude the impact of foreign exchange, restructuring and related costs, impairments, U.S. pension plan credit/expense, environmental insurance recoveries and expenses, and certain other non-recurring extraordinary gains and losses outside of the normal course of our business operations. The Company excludes U.S. pension plan impact in the non-GAAP results as it represents the actuarial net periodic benefit cost recorded, while for all periods presented, the Company was not required and did not make cash contributions to the U.S. Retirement Income Plan based on guidelines established by the Pension Benefit Guaranty Corporation. FCF is defined as cash from operations and dividends received from WAVE, our joint venture with Worthington Industries, Inc., less expenditures for property and equipment, and is adjusted to remove the impact of cash used or proceeds received for acquisitions and divestitures. Please refer to Annex A for a reconciliation of these non-GAAP financial measures to our results as reported under accounting principles generally accepted in the U.S. ("GAAP").

2019 Priorities

Fiscal year 2019 key priorities include:

- Revenue: Driving revenue growth by leveraging our existing capabilities and focusing on broader ceilings and wall market opportunity.
- Adjusted EBITDA: Achieving EBITDA growth through sales gains, manufacturing productivity, increased contributions from WAVE and second year restructuring savings announced in 2017.
- Capabilities: Enhancing our manufacturing and commercial capabilities and expanding our commercial sales resources to align with broader market opportunities, through ongoing digitalization and other efficiency initiatives.
- International: Completing the sale of our International Business to Knauf.
- Operational Efficiency: Continuing to pursue productivity, efficiency and working capital improvements in our manufacturing operations.
- Capital Allocation: Allocating capital to high return opportunities while optimizing FCF and paying a regular quarterly cash dividend.
- Acquisitions: Expanding into adjacencies in our Architectural Specialties segment. On March 5, 2019, we acquired Architectural Components Group, Inc. (ACGI), an industry leader in custom wood ceilings and walls.

2018 Compensation Highlights

During 2018, our Compensation Committee reviewed our compensation plans and generally continued the executive compensation programs established in prior years. As in prior years, our plans are designed to directly link compensation to meaningful improvement in Company performance.

- Annual Incentive Plan (“AIP”): Our 2018 AIP continued to place specific emphasis on revenue and EBITDA as the metrics for Company results. These measures align to key elements of our operating plan and financial goals, including enhanced revenue, manufacturing productivity and competitive SG&A expense, and are strong indicators of our overall operating performance.
- Long-Term Incentive Program (“LTIP”): Our 2018 LTIP grants continued to be comprised of performance-based restricted stock units (“PSU”), with performance metrics based on absolute total shareholder return (“Absolute TSR”) and cumulative FCF. We did not grant time-based restricted stock units to our executive officers in 2018. Our Compensation Committee selected Absolute TSR as a metric in our LTIP because it believes Absolute TSR most directly captures shareholder value creation, while providing senior management with the flexibility and levers needed to drive meaningful performance improvement. Our Compensation Committee selected FCF as a performance metric in the LTIP because it believes FCF growth is an indicator of value-creating activities over the performance period. The grants, intended to compensate for long term value creation, have a three-year performance period, challenging targets with substantial payout upside for breakout performance and a payout scale that includes meaningful performance hurdles. These plan features, and others as described in more detail in this CD&A are all designed to strongly align the interests of management and shareholders, and to provide strong incentives for performance and growth consistent with our strategic plan.

Named Executive Officers

The Company’s named executive officers for the fiscal year ended December 31, 2018 were:

Victor D. Grizzle President and CEO

Brian L. MacNeal Senior Vice President and CFO

Charles M. Chiappone Senior Vice President, Ceiling & Wall Solutions[1]

Mark A. Hershey Senior Vice President, General Counsel & Chief Compliance Officer

Ellen R. Romano Senior Vice President, Human Resources

David S. Cookson Senior Vice President, Americas[1]

(1) In connection with the retirement of Mr. Cookson as of July 1st, 2018, Mr. Chiappone was appointed as Senior Vice President, Ceiling & Wall Solutions, effective April 1, 2018

Shareholder Engagement

In 2018, we continued to engage with our shareholders to seek their perspectives on corporate governance, our executive compensation program, sustainability and other matters. We conducted formal outreach over the course of the year with shareholders representing approximately 26% of our outstanding shares at the time of outreach. These discussions were conducted by Mark Hershey our Senior Vice President, General Counsel & Chief Compliance Officer and Ellen Romano our Senior Vice President, Human Resources, and complemented our regular quarterly informal outreach initiatives led by our dedicated Investor Relations team. Detailed summaries of these discussions were shared with the Compensation Committee and our Nominating and Governance Committee. The discussions were productive and focused primarily on PSU metrics, Board succession planning and sustainability initiatives. We believe that our 2018 nonbinding advisory vote on our executive compensation program result of 94% approval reflects strong shareholder support of our compensation program design.

Our Executive Compensation Philosophy, Objectives, Elements and Characteristics

Compensation Philosophy and Objectives

Our long-term success and growth depend on highly capable leaders with appropriate experience and skills to deliver our strategy in a volatile and challenging market environment. Our executive compensation program is designed to attract, motivate and retain those high-quality leaders. In developing and maintaining this program, the Compensation Committee focuses on the following key objectives:

- Aligning executive interests with shareholder interests.
- Creating a strong link between pay and performance by placing a significant portion of compensation ‘‘at risk’’ based on performance against pre-established goals.
- Structuring sufficiently competitive compensation packages to enable access to high-quality executives in a highly competitive talent environment.

Compensation Elements

In 2018, we executed our compensation philosophy through a combination of: (a) fixed compensation, including (i) base salaries, (ii) benefits and (iii) limited perquisites; and (b) performance-based compensation, including (i) cash incentive awards under our Annual Incentive Plan, and (ii) grants of PSUs under our 2016 Long-Term Incentive Plan (our omnibus equity award plan).

Type	Compensation Elements	Form and Objective	Further Information	Key 2018 NEO Actions
Fixed	Base Salary	• Delivered in cash • Provides reasonable, market competitive fixed pay delivered to each NEO, and reflects his or her role, responsibility, individual performance and contribution to the Company • Generally set at market median	• 2018 Base Salary changes for our NEOs	• NEOs received merit increases averaging 3.1%, effective April 1, 2018
	Benefits	• Standard range of health, welfare, and retirement benefits generally similar to those provided to other salaried employees, except that executives: • are eligible to receive enhanced Company-paid long-term disability benefits; and • are eligible for non-qualified retirement benefits		
	Limited Perquisites	• Limited perquisites or personal benefits • Personal financial counseling at a cost generally less than $4,500 per NEO • Executive physicals at a cost generally less than $5,000 per NEO • Executive long-term disability at a cost generally less than $5,000 per NEO		

	Annual Incentive Plan (AIP)	• Delivered in cash • Provides an annual incentive opportunity for achieving financial results based on performance goals tied to our annual operating plan • Drives selected target metric performance • Payouts are tied to Company and individual performance, including leadership behaviors • Target opportunity generally set at market median	• AIP was based on revenue and EBITDA	• NEOs received AIP payments for 2018 performance at 108% of target
Performance-Based	Long-Term Incentive Program (LTIP)	• Delivered in 100% PSUs for 2018 • Drives and promotes long- term value-creation for our shareholders, and fosters retention, by rewarding execution and achievement of goals linked to our longer term strategic initiatives and stock performance • Target opportunity generally set at market median • In 2018, our Compensation Committee awarded 3-year PSUs tied to Absolute TSR and FCF.	• LTI performance goals were based on FCF and Absolute TSR	• NEOs received annual PSU awards with values ranging from 75% to 413% of base salary.

Compensation Characteristics

At the direction of our Compensation Committee, we subscribe to a "pay-for-performance" philosophy. Our compensation program maintains the following attributes:

- Compensation at Risk — A significant amount of each NEO's target total direct compensation ("TDC"), composed of base salary and short- and long-term incentive compensation, depends on the Company and the NEO achieving specific, performance-based results. Our NEOs' short- and long-term incentive compensation is, therefore, "at risk" as the value is tied to the achievement of financial and/or other measures that the Company considers to be important drivers of shareholder value.
- Multiple and Appropriate Performance Metrics — We use multiple performance measures to avoid having compensation opportunities overly weighted toward the performance result of a single metric. In 2018, we used FCF and Absolute TSR in our LTIP as performance metrics to maintain a focus on longer-term results that help drive shareholder value. We used revenue and EBITDA as our metrics in our AIP. These measures align to key elements of our operating plan and financial goals, including enhanced revenue, manufacturing productivity, competitive sales and general and administrative expense. Each of these measures is a strong indicator of our overall operating performance.
- Emphasis on Long-Term Incentive and Annual Incentive Compensation — Short- and long-term incentive compensation comprises a significant percentage of TDC. Incentive compensation helps drive performance and aligns the interests of employees (including the NEOs) with those of shareholders. By tying a significant portion of TDC to long-term incentives over a three-year period, we promote longer-term perspectives regarding Company performance.
- Recoupment — We may recoup certain stock-based and cash awards distributed under our 2016 Long-Term Incentive Plan and Annual Incentive Plan, including to our NEOs, in the event of an accounting restatement due to material noncompliance with any financial reporting requirement under the securities laws; or certain misconduct causing significant financial or reputational harm to the Company.
- Prohibition on Derivative Transactions — Our insider trading policy prohibits derivative transactions in our shares of Common Stock, including trading in puts, calls, covered calls, or other derivative products involving our securities; prohibits engaging in any hedging transaction with respect to our securities; and prohibits holding company securities in a margin account or pledging our securities as collateral for a loan.
- Stock Ownership Guidelines — Our NEOs are subject to stock ownership guidelines, which help to promote longer-term perspectives and align interests with those of our long-term shareholders. The required ownership multiple is six times annual base pay for our CEO and three times annual base pay for all other NEOs.
- Linear and Capped Incentive Compensation Payouts — The Compensation Committee establishes financial performance goals that are used to plot a payout formula for annual and long-term incentive compensation to avoid an over-emphasis on short-term decision making. The maximum payout for the annual incentive compensation is 200% of target. Long-term incentive compensation is capped at 275% of target for Messrs. Grizzle, MacNeal and Chiappone and 225% of target for Mr. Hershey and Ms. Romano.
- Change in Control ("CIC") Double Trigger — Our CIC agreements include double trigger vesting provisions for equity grants upon a change in control.
- No Tax Gross-Ups — We do not have plans or agreements that provide tax gross-ups to our NEOs under Section 280G of the Internal Revenue Code.
- Holding Requirements — Post-vesting holding requirements apply for amounts payable above target in our 2016, 2017 and 2018 performance-based equity grants for Messrs. Grizzle, MacNeal and Chiappone.

The following table illustrates how our executive compensation elements align with our compensation objectives.

Executive Compensation Element	Attract Talented	Align Management	Pay for Performance	Motivate and Retain

	Employees	and Shareholder Interests		Management
Base Salary	√			√
Annual Incentive Plan (AIP)	√	√	√	√
Long-Term Incentive Program (LTIP)	√	√	√	√

HOW WE MAKE COMPENSATION DECISIONS

Our Compensation Committee is responsible for executive compensation program design and the decision-making process relative to NEOs specifically, and broadly, as these programs apply to other senior leaders and participating employees. The Compensation Committee solicits input from the independent members of the Board, the CEO, other members of management and its independent compensation consultant to assist with its responsibilities. The following summarizes the roles of each of the key participants in the executive compensation decision-making process.

Roles of Key Participants	
Compensation Committee	• Sets the philosophy and principles that guide the executive compensation program;
	• Oversees the design of our executive compensation program in the context of our culture, competitive practices, the legal and regulatory landscape, and governance trends;
	• Reviews and approves short- and long-term incentive compensation design, including performance goals and the reward consequences for delivering above or below target performance;
	• Reviews and approves corporate goals and individual objectives relevant to the compensation of the CEO, evaluates the CEO's performance relative to those goals and objectives, and recommends CEO compensation to be ratified by the independent directors based on the evaluation; and
	• Oversees the evaluation of the other executive officers and approves their compensation in collaboration with the CEO.
Independent Members of the Board	• Participate in the performance assessment process for the CEO; and
	• Review decisions regarding CEO compensation, including base salary, AIP and LTIP awards for the CEO.

Committee Consultant – Willis Towers Watson	• Provides analysis, advice and recommendations with regard to executive compensation;
	• Attends Compensation Committee meetings, as requested, and communicates between meetings with the Compensation Committee Chair and other Committee members; and
	• Advises the Compensation Committee on market trends, regulatory issues and developments and how they may impact our executive compensation programs.
CEO	• Provides input to the Compensation Committee on senior executive performance and compensation recommendations.

Independent Compensation Consultant

In July 2018, the Compensation Committee renewed its engagement of Willis Towers Watson as its independent consultant on executive compensation matters.

Willis Towers Watson also serves as our Pension Plan Actuary in Canada (an arrangement that has been in place for several years, prior to Willis Towers Watson becoming the Compensation Committee's consultant). Typical actuary annual fees are $55,000. We also purchase select compensation and HR survey data from the firm. Willis Towers Watson does not perform any other services for the Company. At the request of the Compensation Committee, in addition to providing general executive compensation advice, Willis Towers Watson performed the following services during 2018:

- advised on the design considerations with respect to the 2018 short- and long-term incentive programs to ensure appropriate linkage between short- and long-term performance and pay;
- advised the Compensation Committee on the composition of a revised peer group;
- advised the Compensation Committee on setting the CEO's compensation; and
- provided an update on current compensation trends, market practices and relevant executive compensation legislation.

The Compensation Committee determined the work of Willis Towers Watson did not raise any conflicts of interest in 2018. In making this assessment, the Compensation Committee considered the independence factors enumerated in Rule 10C-1(b) under the Exchange Act and corresponding rules of NYSE, including the fact that Willis Towers Watson provided limited other services to us, the level of fees received from us as a percentage of Willis Towers Watson's total revenue, policies and procedures employed by Willis Towers Watson to prevent conflicts of interest, and whether the individual Willis Towers Watson advisors to the Compensation Committee own any shares of Common Stock or have any business or personal relationships with members of the Compensation Committee or our executive officers.

After considering all of the factors required by the NYSE rules and all other factors relevant to Willis Towers Watson's independence, the Compensation Committee has determined Willis Towers Watson is independent.

Use of Competitive Data

In setting NEO compensation, the Compensation Committee considers independent survey data, peer compensation data, tally sheets, wealth accumulation analyses and related benchmark information.

Annual Compensation Benchmarking

Annually, the Compensation Committee reviews all components of NEO compensation compared to Competitive Market data (defined below).

In general, we target NEO pay to be at or near the 50th percentile of our defined Competitive Market, but we may deviate from this target based on an individual's performance or internal equity with peers situated at similar levels, or to attract the required level of business knowledge and leadership needed to achieve our strategic objectives.

The principal sources of market data include the following ("Competitive Market"):

- Survey data (all NEOs), including surveys by AonHewitt and Willis Towers Watson
- Peer Group data (CEO and CFO) ("Peer Group")

Consideration of 2018 Advisory Shareholder Vote on Executive Compensation

At our 2017 annual meeting, our shareholders expressed a preference that advisory votes on executive compensation occur every year. Accordingly, the Board implemented an annual advisory vote on executive compensation until the next required vote on the frequency of shareholder votes on the compensation of executives. That vote is scheduled to occur at the 2023 annual meeting. Our most recent advisory shareholder vote on executive compensation took place at the 2018 annual meeting.

Our Board and Compensation Committee appreciate and value the views of our shareholders with respect to our executive compensation program. The results of the 2018 favorable (94%) advisory vote on executive compensation, confirmed to the Compensation Committee that shareholders agree our executive compensation programs have been effective in implementing our stated compensation philosophy and objectives in a manner consistent with shareholder preference.

The Compensation Committee recognizes executive pay practices and notions of sound governance principles continue to evolve. While no specific changes were implemented as a result of the vote, the Compensation Committee intends to continue to pay close attention to ongoing trends and invites our shareholders to communicate any concerns or opinions on executive pay directly to the Compensation Committee or the Board. Please refer to “COMMUNICATION WITH THE BOARD” for further information about communication with the Compensation Committee of the Board.

Peer Group

The Compensation Committee uses compensation data compiled from a group of peer companies based on a number of pre-established criteria, including business model comparability, company size measured by revenue (approximately one-half to two times the Company's revenue) and market capitalization, global presence and investor capital.

In 2018, our Compensation Committee reviewed our compensation Peer Group and removed Ply Gem, which have merged with NCI Building Systems, Inc. In addition, the Committee removed AO Smith Corp and Louisiana-Pacific Corp because their revenue exceeded our range of 1/2 - 2.0x, and replaced them with Eagle Materials and NCI Building Systems.

Our current compensation Peer Group consists of the following 17 manufacturing companies:

Allegion PLC	Herman Miller Inc.	PH Glatfelter Inc.
Apogee Enterprises, Inc	Interface, Inc.	Quanex Building Products Corp
Eagle Materials Inc.	Knoll, Inc.	Simpson Manufacturing Co., Inc
Ferro Corporation	Kraton Performance Polymers Inc.	
Gibraltar Industries, Inc.	Masonite International Corporation	
Griffon Corporation	NCI Building Systems, Inc.	
HB Fuller Co.	OMNOVA Solutions Inc.	

Tally Sheets and Wealth Accumulation Analyses

The Compensation Committee uses tally sheets and wealth accumulation analyses when evaluating compensation-related decisions for each NEO.

- Tally sheets provide historic information on each executive's equity and non-equity compensation, and other compensation such as potential payments upon termination of employment.
- Wealth accumulation analysis assesses the total Company-specific wealth that could be earned by each NEO given certain stock price assumptions.

Compensation Mix

To facilitate the link between NEO pay and Company performance, a significant amount of TDC is performance-based and "at risk."

In 2018, 83% of our CEO's target TDC and 62% of the average target TDC of our other NEOs was performance-based and "at risk." The following chart shows the 2018 compensation mix, consisting of base salary, performance-based AIP, and PSUs as the LTI grants.

Mr. Grizzle Base, 22% AIP, 22% LTI, 56% All Other NEOs Base, 40% AIP, 22% LTI, 39%

2018 COMPENSATION DESIGN AND OUTCOMES

Base Salary

In 2018, the Compensation Committee reviewed base salaries of our NEOs after consideration of the competitiveness of each NEO's base salary compared to the Competitive Market. Pay increases were effective April 1, 2018.

The table below represents the base salary rate as of December 31. This information differs from the Summary Compensation Table ("SCT"), which reflects the total base salary received for the year.

Name	2017 Salary $	2018 Salary $	Change in Base Salary
Victor D. Grizzle	725,000	750,000	3.4 %
Brian L. MacNeal	411,750	425,000	3.2 %
Charles M. Chiappone[1]	370,980	420,000	13.0 %
Mark A. Hershey	405,000	419,000	3.5 %
Ellen R. Romano	312,000	320,000	2.5 %

(1) Upon Mr. Cookson announcing his retirement as Senior Vice President Americas, Mr. Chiappone was named Senior Vice President, Ceiling and Wall Solutions effective April 1, 2018. Mr. Chiappone's salary increase reflects his new base salary based on his promotion.

Annual Incentive Plan Awards

AIP awards provide an annual incentive opportunity for achieving financial results based on performance goals tied to the Company's annual operating plan.

Each NEO's target AIP opportunity (expressed as a percent of base salary) is based on role responsibility and alignment with similar internal positions and the external Competitive Market. Actual payout varies based upon actual business performance relative to performance target, as well as individual performance.

For 2018, AIP awards were determined based on the following formula, measures and weightings all subject to the approval of our Compensation Committee.

2018 AIP Design

Base Salary $	x	Target AIP Opportunity %	=	Target AIP $	x	Company Performance %	x	Individual Performance %	=	Annual AIP Payout $

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2018 Target AIP Opportunity

2018 target AIP opportunities (expressed as a percentage of actual base earnings) for NEOs are set forth in the table below. With the exception of Mr. Chiappone, who was promoted to his new role effective April 1, 2018, there were no changes to these target percentages from 2017.

Name	Target AIP % Opportunity	Target AIP $
Victor D. Grizzle	100%	743,750
Brian L. MacNeal	60%	253,012
Charles M. Chiappone[(1)]	50% / 60%	235,373
Mark A. Hershey	60%	249,381
Ellen R. Romano	55%	175,160
David S. Cookson[(2)]	60%	93,756

(1) Mr. Chiappone's target increased from 50% to 60% upon his promotion to Senior Vice President Ceilings and Wall Solutions effective April 1, 2018
(2) Mr. Cookson received a pro-rated AIP bonus for the period of January 1, 2018 through June 30, 2018. He retired from the Company July 1, 2018.

2018 AIP Performance Metrics

The Compensation Committee again selected revenue and EBITDA as our 2018 AIP performance metrics in order to create strong alignment with shareholders and reflect key measures of value creation. Revenue is weighted 25% and EBITDA weighted 75%.

These measures align to key elements of our operating plan and financial goals, including enhanced revenue, manufacturing productivity and competitive sales, general and administrative expense, and they are strong indicators of our overall operating performance.

For purposes of the 2018 AIP, the Compensation Committee defined: (i) revenue to be gross sales minus returns, discounts and allowances and minus intercompany sales, and (ii) EBITDA to be operating income plus depreciation and amortization plus non-cash pension impact, subject to certain exceptions. The definitions of these metrics did not change from the prior year.

The 2018 revenue target of $953 million and EBITDA target of $357 million were both directly tied to the annual operating plan.

Our Compensation Committee established the following performance ranges and associated payout ranges for the 2018 AIP. The Company's performance was converted to a corresponding payout factor on a straight line basis between Threshold and Target and between Target and Maximum. AIP payout factors are capped at 200%.

	Target $ (in millions)			Performance as % of Target			Payout		
	Threshold	Target	Maximum	Threshold	Target	Maximum	Threshold	Target	Maximum
Revenue	912.0	953.0	1,000.0	96%	100 %	105 %	50%	100 %	200 %
EBITDA	322.3	357.0	392.0	90%	100 %	110 %	50%	100 %	200 %

2018 Individual Performance

The Board and the Compensation Committee considered individual performance when finalizing AIP awards for the CEO and other NEOs and approved an individual increased performance adjustment for Mr. Chiappone of 15%. In 2018, Mr. Chiappone developed, articulated and executed a clear strategy for achieving 9% year-over-year revenue growth, industry-leading price realization in both mineral fiber and WAVE, and completing the Plasterform and Steel Ceilings Inc. acquisitions. No other NEO had their AIP adjusted due to performance.

2018 Performance and Payout Factors

Our 2018 revenue performance was 103% of plan resulting in a 153% payout, and our EBITDA performance represented 99% of plan with a corresponding 93% payout. These results yielded a combined payout factor of 108% for the NEOs.

Further details are shown in the table below:

Measure	2018 Target $M	2018 Actual $M	Performance %	Payout %
Revenue	953.0	978.0	103%	153%
EBITDA	357.0	352.0	99%	93%

2018 Final AIP Awards

The Compensation Committee determined the final 2018 AIP payouts by multiplying each NEO's target AIP amount by the final weighted payout factors as outlined below.

Name	Target AIP $	Payout Factor	2018 Final AIP Award $
Victor D. Grizzle	743,750	108 %	803,250
Brian L. MacNeal	253,012	108 %	273,260
Charles M. Chiappone[1]	235,373	108 %	292,340
Mark A. Hershey	249,381	108 %	269,340
Ellen R. Romano	175,160	108 %	189,180
David S. Cookson	93,756	108 %	101,260

[1] Mr. Chiappone received a 115% individual performance modifier, which resulted in an increased payout of $38,130

Long-Term Incentive Program Awards

The goal of our LTIP is to provide equity-based long-term incentive awards that link management interests to shareholder returns and focus management on our long-term performance.

In determining the LTIP award opportunity for the CEO and other NEOs, our Board and Compensation Committee consider a number of factors, including the Competitive Market, internal equity and cost (dilution and accounting cost), as well as tally sheet and wealth accumulation analyses.

LTIP awards for a given year are typically made two business days following the release of our financial results for our prior fiscal year. This allows sufficient time for the market to absorb the announcement of earnings and current year performance guidance.

The 2018 LTIP grants consisted of awards differentiated between two leadership tiers. The Compensation Committee granted PSUs to the most senior executive tier, namely Messrs. Grizzle, MacNeal and Chiappone to vest based on achievement of Absolute TSR (75% of the award) and FCF (25% of the award). The Compensation Committee granted PSUs to Mr. Hershey and Ms. Romano to vest based on achievement of Absolute TSR (25% of the award) and FCF (75% of the award), consistent with Tier II awards.

Messrs. Grizzle, MacNeal and Chiappone have post-vesting holding requirements for amounts payable above target in our 2018 performance-based equity grants. If earned, the above target shares must be held for one year following the Vesting Date.

2018 LTI Performance Metrics and Weighting

The number of shares eligible to vest under the 2018 LTI awards is based on the achievement of applicable performance targets relative to Absolute TSR and FCF targets during the performance period (January 1, 2018 to December 31, 2020). The grants, intended to compensate for long term value creation, have a three-year performance period to allow a reasonable timeframe for value creation, challenging targets with substantial payout upside for breakout performance and a payout scale that defines meaningful performance hurdles. The PSUs for Messrs. Grizzle, MacNeal and Chiappone (Tier I) can vest 25% of target at threshold performance to 275% of target at maximum performance and the PSUs for Mr. Hershey and Ms. Romano (Tier II) can vest at 50% of target at threshold performance to 225% of target at maximum performance. There is no payout below threshold performance.

Absolute TSR tracks the appreciation in share price of the Company's Common Stock, including dividends, and is annualized for the performance period. The ending share price for the Absolute TSR calculation will be based on the volume-weighted, average closing price of the Company stock for the highest consecutive 30 trading days in the 60-trading-day-period beginning with and immediately following January 2, 2021. The starting price was based on the volume-weighted average of the highest consecutive 30 trading days in the subsequent 60-trading- day-period closing price of the Company stock for the highest 30 trading days immediately following January 2, 2018 – resulting in $62.18 per share.

			Incentive Payout	
	Annualized	Ending		
	TSR	Share	Tier I	Tier II
Performance to TSR Target	Target	Price	(75% weighting)	(25% weighting)
50%	5.25%	$72.50	0%	50%
75%	7.9%	$78.11	25%	75%
83%	8.7%	$79.86	50%	83%
100%	10.5%	$83.90	100%	100%
167%	17.5%	$100.87	200%	200%
250%	26.3%	$125.27	300%	300%

Cumulative FCF is defined as cash flow from operations less cash used in investing activities.

		Incentive Payout	
		Tier I	Tier II
Performance to FCF Target	FCF $(M)	(25% weighting)	(75% weighting)
80%	$546	25%	50%
100%	$682	100%	100%
113%	$771	150%	150%
118%	$805	175%	175%
125%	$853	200%	200%

2018 Target LTI

The Compensation Committee annually determines the LTI target opportunity (expressed as a percent of base salary) based on role responsibility, alignment with similar positions internally and the external Competitive Market, as well as a review of tally sheets and wealth accumulation analyses.

After a review of the Competitive Market data provided by Willis Towers Watson, the Compensation Committee increased Mr. Grizzle's target LTIP opportunity in 2018 to $3,100,000. This adjustment to Mr. Grizzle's LTIP value positioned him at market median TDC. Mr. MacNeal's LTIP opportunity increased to 110% from 100% of base salary to align to market median TDC. Mr. Chiappone's LTIP opportunity increased to 100% from 75% of base salary upon his promotion. No other LTIP targets were adjusted in 2018.

The respective target percentages for annual LTIP grants to our NEOs in 2018 and the resulting Grant Date Fair Value are set forth in the table below.

	2018 LTIP Target	
	as % of Base	2018 LTI Annual
Name	Salary	Target Value ($)[1]
Victor D. Grizzle	413%	3,100,000
Brian L. MacNeal	110%	452,900
Charles M. Chiappone	100%	370,900
Mark A. Hershey	125%	506,300
Ellen R. Romano	100%	312,600
David S. Cookson[2]	75%	278,500

(1) Amounts represent the grant date fair value for the long-term incentive equity award granted in February 2018, as calculated under the Financial Accounting Standards Board's Accounting Standards Codification Topic 718, or

ASC Topic 718. Under ASC Topic 718, the grant date fair value is calculated using the closing market price of our shares of Common Stock ($59.10) on the date of the grant (February 27, 2018).

(2) Mr. Cookson forfeited his award upon his retirement on July 1, 2018.

Payout of 2016-2018 Performance Restricted Stock Units

The performance for PSUs awarded in 2016 for the 2016 – 2018 performance period was determined on April 1, 2019. The awards were based on Absolute TSR and FCF over the performance period. The Compensation Committee granted PSUs to the most senior executive tier, namely Messrs. Grizzle, MacNeal, Chiappone and Cookson to vest based on achievement of Absolute TSR (75% of the award) and FCF (25% of the award). The Compensation Committee granted PSUs to Mr. Hershey and Ms. Romano to vest based on achievement of Absolute TSR (25% of the award) and FCF (75% of the award).

Based upon performance during the measurement period, the Absolute TSR achievement for the 2016 – 2018 period was 23.57%, with a calculated price of $73.94. This exceeded our 12% annualized TSR target resulting in a 236% payout. The starting share price for the TSR PSUs was $41.31. The adjusted cumulative FCF was $507M for the performance period, exceeding our target of $403M. The Committee approved a payout factor of 175%. Based on the metrics and the certified Absolute TSR and FCF results, the PSUs for Messrs. Grizzle, MacNeal, Chiappone and Cookson vested at 221% of target and the PSUs for Mr. Hershey and Ms. Romano vested at 190% of target. For Messrs. Grizzle, MacNeal and Chiappone, PSUs distributed in excess of target must be held for one year following the vesting date.

Name	2016 PSU Shares Granted	2016 PSU Payout Factor	2016 PSU Final Share Payout
Victor D. Grizzle	125,779	221%	277,658
Brian L. MacNeal	26,953	221%	59,500
Charles M. Chiappone	19,140	221%	42,252
Mark A. Hershey	12,130	190%	23,078
Ellen R. Romano	7,308	190%	13,904
David S. Cookson	15,902	221%	35,104

2018 Total Direct Compensation

The table below summarizes TDC paid or awarded to our current NEOs during 2018. This table is not intended to be a substitute for the SCT or Grants of Plan-Based Awards Table (‘‘GPBAT’’). Base salary reflects the total salary paid for 2018. AIP awards and LTIP awards for 2018 are reflected in the SCT and GPBAT. LTIP awards represent an incentive for future performance, not current cash compensation, and are “at risk” of forfeiture.

Name	2018 Salary $	2018 Final AIP $	2018 LTIP $ [1]	TDC $
Victor D. Grizzle	743,750	803,250	3,100,000	4,647,000
Brian L. MacNeal	421,687	273,260	452,900	1,147,847
Charles M. Chiappone	407,745	292,340	370,900	1,070,985
Mark A. Hershey	415,635	269,340	506,300	1,191,275

Ellen R. Romano	318,472	189,180	312,600	820,252

(1) Amounts represent the aggregate grant date fair value for LTIP equity awards granted in 2018, as calculated under the Financial Accounting Standards Board's Accounting Standards Codification ASC Topic 718. Under ASC Topic 718, the grant date fair value is calculated using the closing market price of our Common Stock on the date of the grant.

2018 Additional Compensation

The Compensation committee approved a one-time special cash bonus of $280,000 on October 25, 2018 for Mr. Hershey. The bonus was paid to Mr. Hershey in recognition of his leadership and performance in connection with certain significant projects, including the pending sale of our International Businesses to Knauf, as well as environmental litigation matters. The special bonus is separate from our AIP.

2019 Compensation Program Design

For 2019, the Compensation Committee reviewed the design of our executive compensation program and decided to maintain the 2018 metrics for both our AIP and our LTIP.

ADDITIONAL INFORMATION REGARDING OUR COMPENSATION PROGRAMS

Qualified and Non-Qualified Defined Benefit Pension Plans

Mr. Cookson and Ms. Romano were the only NEOs who participated in the Company's qualified defined benefit pension plan, the Retirement Income Plan ("RIP"), which was closed to newly hired salaried employees after January 1, 2005. Pension benefits were frozen for all salaried employees on December 31, 2017.

A non-qualified defined benefit pension plan, the Retirement Benefit Equity Plan ("RBEP"), pays benefits that cannot be paid under the RIP due to statutory limits. This plan was also closed to newly hired salaried employees after January 1, 2005 and pension benefits were frozen on December 31, 2017.

Qualified Defined Contribution Savings Plan and Non-qualified Deferred Compensation Plan

The Company maintains a 401(k) plan. For salaried employees, we provide a 401(k) match of 100% on the first 4% of employee contributions and a 50% match on the next 4% of employee contributions for a maximum company match of 6%. All NEOs participate in this program.

The Company offers an unfunded, nonqualified deferred compensation plan, the Armstrong Nonqualified Deferred Compensation Plan, to restore Company contributions that would be lost due to Internal Revenue Code limits on compensation that can be taken into account under the Company's tax-qualified 401(k) plan and to allow participants to voluntarily elect to defer base salary and AIP until a future date.

Participants in the Armstrong Nonqualified Deferred Compensation Plan receive a Company match identical to the 401(k) Company match up to a maximum contribution of 6% of eligible earnings. All NEOs are eligible to participate in this program.

Separation Arrangements

Each NEO has a separation agreement with the Company. These agreements are designed to:

- assure continuity of executive management during the evaluation and execution of any transaction that may result in loss of or material changes to employment;
- reduce risk to the Company and provide shareholder alignment by keeping executives neutral to job loss when pursuing actions that may result in termination of employment;
- ensure executive management is able to objectively evaluate any transaction and act in the best interests of shareholders during the design and execution of such a transaction; and
- define transition support and terms in the event of not-for-cause termination.

Payments upon Termination of Employment

Our separation arrangements provide for executive entitlement to certain cash severance benefits if the executive's employment is terminated by the Company without Cause or by the executive for Good Reason (as such terms are defined in the separation agreement). Under the separation agreements that apply in absence of a change in control the severance is equal to (i) 1.5 times (two times in the case of Mr. Grizzle) the executive's then-current annual base salary plus target annual incentive under the AIP program, payable in a lump sum, and (ii) a pro-rated annual incentive bonus based on actual performance for the year of termination, payable at the time that bonuses are paid to employees of the Company generally.

Under each executive's separation agreement, the executive is entitled to receive severance payments upon involuntary termination without Cause or termination for Good Reason within two years following a change in control ("CIC"), or within six months preceding a CIC if the termination is in connection with a potential CIC. In a CIC the severance is equal to (i) two times (2.5 times in the case of Mr. Grizzle) the executive's then-current annual base salary plus target annual incentive under the AIP program, payable in a lump sum, and (ii) a pro-rated annual incentive bonus based on actual performance for the year of termination, payable at the time that bonuses are paid to employees of the Company generally.

None of the separation agreements provide for tax gross-ups under Sections 280G and 4999 of the Internal Revenue Code. For more information regarding our NEO separation arrangements, please refer to the “Potential Payments upon Termination of Change in Control” section.

Stock Ownership Guidelines

The Compensation Committee maintains stock ownership guidelines for our NEOs to ensure that our NEOs have significant long-term value creation tied to stock price appreciation. Ownership requirements and progress toward their achievement are reviewed annually as part of the compensation planning process. A significant percentage of each NEO’s compensation is directly linked to our stock price appreciation. The guidelines require retention of 100% of net shares acquired upon any vesting or exercise of equity awards until the ownership guidelines are met.

The stock ownership guidelines for our NEOs are calculated as a fixed number of shares using a required ownership multiple, the executive’s annualized base salary as of a certain date, and the stock price as of a fixed date. The required ownership multiple is six times annual base pay for our CEO and is three times annual base pay for our other NEOs.

For purposes of the stock ownership guidelines, we include direct ownership of shares and stock units held in employee plans. Stock options are included to the extent they are “in-the-money.” PSUs are not included in determining whether an executive has achieved the ownership levels.

The stock ownership guidelines require achievement of the ownership multiple within five years from date of hire or promotion into the role for the NEOs.

The Compensation Committee last reviewed the NEOs' progress toward meeting the stock ownership requirements in December 2018. As of the date of the review, Messrs. Grizzle, Hershey and Ms. Romano had met their ownership requirements.

Restrictive Covenants

Each NEO has a restrictive covenants agreement as part of their separation agreement. The agreements require the following:

- For 12 months following a termination the NEO shall not, directly for the NEO or any third party, become engaged in any business or activity which is directly in competition with any services or products sold by, or any business or activity engaged in by, the Company or any of its affiliates
- For 24 months following a termination, the NEO shall not solicit any person who was a customer of the Company or any of its affiliates during the period of the NEO's employment hereunder, or solicit potential customers who are or were identified through leads developed during the course of employment with the Company, or otherwise divert or attempt to divert any existing business of the Company or any of its affiliates; and
- The NEO shall not, directly for the NEO or any third party, solicit, induce, recruit or cause another person in the employment of the Company or any of its affiliates to terminate such employee's employment for the purposes of joining, associating, or becoming employed with any business or activity which is in competition with any services or products sold, or any business or activity engaged in, by the Company or any of its affiliates.

Recoupment Policy

In 2019, our Compensation Committee amended our 2016 Long-Term Incentive Plan to expand the scope and coverage or its recoupment provision. Under the amended plan, the Compensation Committee has the ability to exercise discretion and take action to recoup settled or unsettled stock-based and cash awards from a plan participant in the following events:

- an accounting restatement of the Company's financial statements that is required due to material noncompliance with any financial reporting requirements under the securities laws and GAAP;
    - the participant is involved in (i) the commission of a felony or a crime involving moral turpitude; (ii) fraud, dishonesty, misrepresentation, theft or misappropriation of funds; (iii) a violation of our Code of Conduct or employment policies; (iv) gross negligence or willful, deliberate or gross misconduct, that results in significant financial or reputational harm to the Company;
- during the participant's employment or the one-year period thereafter, the participant engages in business that is competitive with the Company or substantially injurious to the Company's business interests;
- during the participant's employment or the two-year period thereafter, the participant solicits the Company's customers or employees; or
- the participant breaches any written noncompetition, confidentiality or non-solicitation covenant with the Company.

All of our NEOs are subject to the above recoupment terms of the plan.

Prohibition on Hedging and Derivative Trading

All members of our Board and senior management, including our NEOs and certain other employees, are required to clear any transaction involving Company securities with our General Counsel's office prior to entering into such transaction.

By policy, we prohibit derivative transactions in our Company securities, including:

- Trading in puts, calls, covered calls, or other derivative products involving Company securities.
- Engaging in any hedging transaction with respect to Company securities.
- Holding Company securities in a margin account or pledging Company securities as collateral for a loan.

We permit senior management to use stock trading plans that comply with Rule 10b5-1 of the Exchange Act. All such plans are subject to our pre-approval, and the ability to enter into such plans remains subject to policy prohibitions on trading while in possession of material non-public information.

Assessment and Management of Risk

We monitor the risks associated with our compensation program on an ongoing basis. In addition, we are committed to performing formal assessments on a periodic basis. At the conclusion of the most recent analysis (conducted in 2018) of our compensation programs and associated risks, it was the assessment of the Compensation Committee that our compensation programs are structured and operated with an appropriate balance of risk and reward and, by their design, do not encourage executives to take unnecessary, excessive, or inappropriate risks and do not create risks reasonably likely to have a material adverse effect on the Company.

Tax Deductibility of Compensation

Section 162(m) of the Internal Revenue Code imposes a $1 million limit on the amount a public company may deduct for compensation paid to certain of the Company's highest paid officers.

For 2018, the executive officers to whom the Section 162(m) deduction limit applies included the Company's Chief Executive Officer and Chief Financial Officer, the next three most highly compensated executive officers, and any such "covered employee".

The Compensation Committee considers both tax and accounting treatment in establishing our compensation program. The Compensation Committee retains discretion to authorize compensation arrangements that are not fully tax deductible as it deems appropriate.

COMPENSATION COMMITTEE REPORT

The Management Development and Compensation Committee (MDCC) of our Board has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with our management. Based on this review and discussion, the MDCC recommended to the Board that the Compensation Discussion and Analysis be included in this 10-K/A.

Submitted by the Management Development and Compensation Committee

Stan A. Askren, Chair

James C. Melville

Gregory P. Spivy

Cherryl T. Thomas

This report shall not be deemed to be “soliciting material” or to be “filed” with the SEC, nor incorporated by reference into any future SEC filing under the Securities Act of 1933 or the Exchange Act, except to the extent that the Company specifically incorporates it by reference therein.

2018 SUMMARY COMPENSATION TABLE

The table below sets forth the total compensation for our NEOs during fiscal 2018, 2017 and 2016.

Name and Principal Position	Year	Salary ($)	Bonus[3] ($)	Stock Awards[1] ($)	Option Awards[1] ($)	Non-Equity Incentive Plan Compensation[1] ($)	Change in Pension Value & Nonqualified Deferred Compensation Earnings[4] ($)	All Other Compensation[2] ($)	Total[5] ($)
Victor D. Grizzle	2018	743,750	—	3,100,000	—	803,250	—	83,319	4,730,319
President and Chief	2017	718,750	—	2,300,000	—	567,820	—	92,921	3,679,491
Executive Officer	2016	650,050	—	5,250,000	—	754,930	—	68,977	6,723,957
Brian L. MacNeal	2018	421,688	—	452,900	—	273,260	—	31,523	1,179,371
Senior Vice President and Chief	2017	402,563	—	375,000	—	190,820	—	32,642	1,001,025
Financial Officer	2016	347,875	—	1,125,000	—	238,400	—	21,339	1,732,614
Charles M. Chiappone	2018	407,745	—	370,900	—	292,340	—	18,500	1,089,485
Senior Vice President, Ceiling Solutions	2017	366,985	—	266,300	—	144,960	—	23,122	801,367
Mark A. Hershey	2018	415,635	280,000	506,300	—	269,340	—	44,207	1,515,482
Senior Vice President, General Counsel and	2017	418,200	—	506,300	—	252,940	—	48,413	1,225,853
Chief Compliance Officer	2016	415,675	671,550	1,071,300	—	304,280	—	57,373	2,520,178
Ellen R. Romano	2018	318,473	—	312,600	—	189,180		34,159	854,412
Senior Vice President,	2017	310,723	—	305,000	—	143,560	559,893	10,830	1,330,006
Human Resources	2016	310,750	492,000	680,000	—	208,520	581,273	11,346	2,283,889
David S. Cookson	2018	187,513	—	278,500	—	101,260		13,002	580,275
Senior Vice President,	2017	368,615	—	270,400	—	136,390	615,964	9,982	1,401,351

Americas	2016	371,315	—	811,200	—	211,650	375,379	9,331	1,778,875

(1) The amounts reflect the aggregate grant date fair value of stock units granted in the fiscal year, computed in accordance with ASC Topic 718. Under ASC Topic 718, the grant date fair value is calculated using the closing price of the Company's shares of Common Stock ($59.10) on the date of grant (February 27, 2018). The 2018 LTIP awards consist of PSUs only. The target and maximum payouts for the PSUs are as follows: target of $3,100,000 and maximum of $8,525,000 for Mr. Grizzle, target of $452,900 and maximum of $1,245,475 for Mr. MacNeal, target of $370,900 and maximum of $1,019,975 for Mr. Chiappone (maximums are 275% of target); target of $506,300 and maximum of $1,139,175 for Mr. Hershey, target of $312,600 and maximum of $703,350 for Ms. Romano (maximums are 225% of target).

(2) The 2018 amounts disclosed are the awards under the 2018 AIP.

(3) Mr. Hershey received a one-time special cash bonus of $280,000 on October 25, 2018. The bonus was paid in recognition of his leadership and performance in connection with certain significant projects. The special bonus was separate from our AIP. In 2016, amounts payable under retention agreements that were entered in 2015 and were contingent on the successful separation of AFI. The retention payments were made upon the successful execution of the separation in April 2016.

(4) For 2018, the change in pension value decreased from last year due to the higher discount rate for both Ms. Romano and Mr. Cookson. The values were ($205,437) for Ms. Romano and ($158,545) for Mr. Cookson.

(5) The amounts shown in the "All Other Compensation" column include: (i) Company matching contribution to the Savings and Investment 401(k) Plan and to the NQDCP; (ii) premiums for long-term disability insurance; (iii) termination payments (severance); (iv) relocation expenses; and (v) personal benefits ("perquisites") consisting of medical examinations and financial planning expense reimbursements to the extent the total perquisite value is $10,000 or greater per individual. For each person the total value of all such perquisites did not reach $10,000.

(6) The following table provides the detail for the amounts reported in the All Other Compensation for 2018 for each NEO:

	Perquisites and Other Benefits ($)	Company Match Savings Plan Contributions ($)	Executive Long-Term Disability ($)	All Other Compensation ($)
Victor D. Grizzle		83,319	--	83,319
Brian L. MacNeal		31,523	--	31,523
Charles M. Chiappone		18,500	--	18,500
Mark A. Hershey		42,377	1,830	44,207
Ellen R. Romano		32,329	1,830	34,159
David S. Cookson		12,087	915	13,002

CEO Pay Ratio

Our philosophy is to pay our employees competitively with similar positions in the applicable labor market. We follow this approach globally, whether it be an executive level position or hourly job. As such, we typically benchmark by position to the applicable labor market every year, and adjust compensation to match the applicable market. By doing so, we believe we maintain a high-quality, stable workforce. The compensation we paid to the median employee identified below was benchmarked in accordance with this process to verify competitive compensation.

There has been no change in the company's employee population or employee compensation arrangements that would result in a significant change in the pay ratio disclosure. Further, there has been no change in the circumstances of the employee identified as the median employee in 2017. Accordingly, the pay ratio calculation has been made using the 2018 compensation for the median employee identified in 2017.

As a result of rules the SEC adopted under the Dodd-Frank Act, we are providing the following disclosure about the ratio of the annual total compensation of our CEO to the annual total compensation of our median employee. For the year ended December 31, 2018:

- the annual total compensation of our median employee was reasonably estimated to be $80,607,
- the annual total compensation of our CEO was $4,730,319; and
- based on this information, the ratio of the annual total compensation of the CEO to that of the median employee is estimated to be 59:1

We identified our median employee using a multistep process that is permitted under the SEC rules. We first examined the annual taxable earnings paid to each of our employees during 2017, which we gathered from payroll data. Then, we excluded 162 employees in countries outside the U.S. where the headcount is less than approximately 35, as allowed under the deminimis exception to the SEC rules. The total numbers of U.S. employees and non-U.S. employees were 2,146 and 1,754, respectively, before taking into account such exclusions and for purposes of calculating such exclusions.

Countries and number of employees excluded (162):

Mexico – 3	Brazil – 4	Australia – 38	Hong Kong - 10
Taiwan – 1	Indonesia – 2	Malaysia – 1	Philippines – 2
Singapore – 1	Thailand – 1	Vietnam – 2	Czech Republic – 35
United Arab Emirates – 10	Italy – 6	Spain – 5	Portugal - 1
Ireland – 2	Turkey – 2	Netherlands - 35	Kazakhstan - 1

We annualized the total taxable compensation paid to those employees who commenced work with us during 2017 and therefore did not work for us the entire calendar year. Using this annual taxable compensation data, we identified the employee whose total taxable compensation was closest to the median. We then calculated the total annual compensation of the median employee, in the same way as we calculate total annual compensation for our CEO in the Summary Compensation Table.

GRANTS OF PLAN-BASED AWARDS

The table below shows information on AIP awards and PSUs granted to each NEO in 2018. There is no assurance that the grant date fair value of PSU/RSU awards will be realized by the executive.

			Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or	All Other Option Awards: Number of Securities Under-	Exercise or Base Price of Option	Grant D Fair Va of Stock and Opt
ne		Grant Date	Threshold ($)	Target ($)	Maximum ($)	Threshold (#)	Target (#)	Maximum (#)	Units (#)	Lying Options (#)	Awards ($/Sh)	Awards ($)
tor D. zzle	(1)	N/A	371,875	743,750	1,487,500							
	(2)	2/27/2018				13,114	52,454	144,249				3,100,0
n L. cNeal	(1)	N/A	126,506	253,013	506,025							
	(2)	2/27/2018				1,916	7,664	21,076				452,90
rles M. appone	(1)	N/A	117,686	235,373	470,745							
	(2)	2/27/2018				1,569	6,276	17,259				370,90
k A. shey	(1)	N/A	124,691	249,381	498,762							
	(2)	2/27/2018				4,284	8,567	19,276				506,30
n R. nano	(1)	N/A	87,580	175,160	350,320							
	(2)	2/27/2018				2,645	5,290	11,903				312,60
id S. kson	(1)	N/A	46,878	93,756	187,513							
	(2)(3)	2/27/2018				1,178	4,713	12,961				278,50

(1) The amounts shown represent the 2018 AIP threshold, target and maximum opportunity for each NEO. Actual payouts are included in the Non-Equity Incentive Plan Compensation column of the SCT.

(2) In 2018, the Company's LTI program for NEOs included PSUs that have a three-year performance period based on Absolute TSR and FCF; participants earn up to 275% of target for Messrs. Grizzle, MacNeal, Chiappone and Cookson and up to 225% of target for Mr. Hershey and Ms. Romano if the Company achieves the established performance goals. Any cash dividends declared on shares underlying PSUs will be accrued in a non-interest bearing account and paid when the restrictions on the underlying shares lapse.

(3) Upon Mr. Cookson's retirement on July 1, 2018, he forfeited his 2018 PSU grant.

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OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The table below shows the number of shares covered by exercisable and unexercisable stock options, and unvested RSUs and PSUs held by each NEO on December 31, 2018. Market or payout values in the table below are based on the closing price of our shares of Common Stock on that date, $58.21. Equity awards held by NEOs at the time of the 2016 separation of Armstrong Flooring Inc. were adjusted to reflect such separation, consistent with equity awards held by other Company employees, and the table below includes outstanding adjusted awards as of December 31, 2018.

		Option Awards				Stock Awards			
		Number of Securities Underlying Unexercised Options						Equity Incentive Plans Awards	Equity Incentive Plans Awards Market or Payout Value of Unearned Shares or Other Rights That Have Not Vested
		Number of Securities Underlying Unexercised Options	Number of Securities Underlying Unexercised Options (#)	Option Exercise Price	Option Expiration	Number of Shares or Units of Stock That Have Not Vested	Market Value of Shares or Units of Stock That Have Not Vested	Equity Incentive Plans Awards Number of Unearned Shares, Units or Other Rights That Have Not Vested	
Name	Grant Date	Exercisable	Unexercisable[1]	($)	Date	(#)	($)	(#)	($)
Victor D. Grizzle	1/17/2011	19,158		32.03	01/17/21				
	3/2/2011	31,200		31.15	03/02/21				
	2/28/2012	31,348		37.83	02/28/22				
	2/20/2013	25,689		45.32	02/20/23				
	2/25/2014	22,914		47.17	02/25/24				
	4/11/2016							125,779	(2) 7,321,596
	2/28/2017							50,000	(3) 2,910,500
	2/27/2018							52,454	(4) 3,053,347
Brian L. MacNeal	6/24/2014	3,740		49.96	06/24/24				
	4/11/2016							26,953	(2) 1,568,934
	2/28/2017							8,153	(3) 474,586
	2/27/2018							7,664	(4) 446,121
Charles M. Chiappone	2/28/2012	2,307		37.83	02/28/22				
	2/20/2013	3,781		45.32	02/20/23				

	2/25/2014	5,904		47.17	02/25/24					
	4/11/2016							19,140	(2)	1,114,139
	2/28/2017							5,790	(3)	337,036
	2/27/2018							6,276	(4)	365,326
Mark A. Hershey	2/20/2013	17,539		45.32	02/20/23					
	2/25/2014	16,184		47.17	02/25/24					
	4/11/2016					9,025	(1)	525,345		
	4/11/2016							12,130	(2)	706,087
	2/28/2017							11,007	(3)	640,717
	2/27/2018							8,567	(4)	498,685
Ellen R. Romano	4/11/2016					5,990	(1)	348,678		
	4/11/2016							7,308	(2)	425,399
	2/28/2017							6,631	(3)	385,991
	2/27/2018							5,290	(4)	307,931
David S. Cookson	4/11/2016							15,902	(2)	925,655
	2/28/2017							2,940	(3)	171,137

(1) Grant will vest in three equal installments two, three and four years from the date of grant.

(2) The number of shares of Common Stock represents the amount that vests if target is achieved for the 2016 PSU grant (based on Absolute TSR and FCF goals). The awards would vest on December 31, 2018. Participants can earn up to 275% of target for Messrs. Grizzle, MacNeal, Chiappone and Cookson and 225% of target for Mr. Hershey and Ms. Romano.

(3) The number of shares of Common Stock represents the amount that vests if target is achieved for the 2017 PSU grant (based on Absolute TSR and FCF goals). The awards would vest on December 31, 2019. Participants can earn up to 275% of target for Messrs. Grizzle, MacNeal, Chiappone and Cookson and 225% of target for Mr. Hershey and Ms. Romano.

(4) The number of shares of Common Stock represents the amount that vests if target is achieved for the 2018 PSU grant (based on Absolute TSR and FCF goals). The awards would vest on December 31, 2020. Participants can earn up to 275% of target for Messrs. Grizzle, MacNeal and Chiappone and 225% of target for Mr. Hershey and Ms. Romano.

OPTION EXERCISED AND STOCK VESTED

The following table shows the exercise of stock options by each NEO during 2018, as well as stock awards held by each NEO that became free of restrictions during 2018.

	Option Awards		Restricted Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)[1]
Victor D. Grizzle	—	—	5,983	367,655
Brian L. MacNeal	—	—	980	60,221
Charles M. Chiappone	—	—	1,519	93,343
Mark A. Hershey	35,773	1,191,109	8,657	509,187
Ellen R. Romano	—	—	5,586	328,135
David S. Cookson	27,336	562,010	1,798	110,487

(1) Represents the number of RSUs/ PSUs that vested in 2018. The value realized upon vesting is computed by multiplying the number of units by the value of the underlying shares on the vesting date.

The performance period for PSUs granted in 2016 ended on December 31, 2018. The final payout determination was made in April 2019 by the Compensation Committee after a review of the Company's performance and certification of achievement of the performance goals. The final 2016 PSU shares paid out and the value realized in April 2019 are set forth below.

Name	2016 PSU aTSR Shares Granted (#)	2016 PSU aTSR Payout Factor	2016 PSU aTSR Final Payout (#)	PSU aTSR Value on Vesting [a] ($)
Victor D. Grizzle	94,334	236 %	222,629	18,070,796
Brian L. MacNeal	20,215	236 %	47,708	3,872,458
Charles M. Chiappone	14,355	236 %	33,878	2,749,877
Mark A. Hershey	3,033	236 %	7,158	581,015
Ellen R. Romano	1,827	236 %	4,312	350,005

David S. Cookson	11,926	236 %	28,146	2,284,611

Name	2016 PSU FCF Shares Granted (#)	2016 PSU FCF Payout Factor	2016 PSU FCF Final Payout (#)	PSU FCF Value on Vesting [(a)] ($)
Victor D. Grizzle	31,445	175 %	55,029	4,466,704
Brian L. MacNeal	6,738	175 %	11,792	957,157
Charles M. Chiappone	4,785	175 %	8,374	679,718
Mark A. Hershey	9,097	175 %	15,920	1,292,226
Ellen R. Romano	5,481	175 %	9,592	778,583
David S. Cookson	3,976	175 %	6,958	564,781

(a) Value at $81.17, the closing price of our shares of Common Stock on April 1, 2019, the date of Compensation Committee final payout determination.

PENSION BENEFITS

The table below shows the present value of accumulated benefits payable to each of the NEOs, including the number of years of service credited to each such NEO, under the RIP and the RBEP as of December 31, 2018. The amounts were determined using the same interest rate and mortality rate assumptions used in the Company's Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2018. Information regarding the RIP and RBEP can be found in Note 16 to the Company's Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2018.

Name	Plan Name	Number of Years Credited Service (#)	Present Value of Accumulated Benefit ($)	Payments During Last Fiscal Year ($)
Victor D. Grizzle	Not eligible			
Brian L. MacNeal	Not eligible			
Charles M. Chiappone	Not eligible			
Mark A. Hershey	Not eligible			
Ellen R. Romano	Retirement Income Plan for Employees of Armstrong World Industries, Inc.	34.5	1,371,335	0
	Retirement Benefit Equity Plan of Armstrong World Industries, Inc.	34.5	1,258,480	0
David S. Cookson	Retirement Income Plan for Employees of Armstrong World Industries, Inc.	38.5	2,086,113	71,232
	Retirement Benefit Equity Plan of Armstrong World Industries, Inc.	38.5	1,594,969	0

The RBEP was established to pay any benefit which cannot be paid under the RIP due to Internal Revenue Code compensation or benefits limitations. All pension benefits are paid by the Company. The pension plans were closed to new salaried participants effective January 1, 2005 and pension benefits were frozen for all salaried employees on December 31, 2017. Benefits payable under the RIP and RBEP are based on a formula that yields an annual amount payable over the participant's lifetime beginning at the age where the participant qualifies for an unreduced life annuity benefit.

In addition, Mr. Cookson and Ms. Romano qualified for an additional annuity payment under the ESOP Pension Account (the "EPA") to the extent such benefit can be paid under the qualified pension plan. The EPA was established in 2000 to restore a portion of the value lost by a broad group of employees who had purchased shares of Company stock and received Company contributions of additional shares which were intended to help fund the cost of their retiree health care coverage. The starting EPA balance was determined by multiplying the number of ESOP shares held by the participant by $47.75 which was the guaranteed value of the original ESOP convertible preferred shares. The EPA is credited with interest annually using the November 30-year Treasury bond rate. Interest is credited up to the date the participant commences regular pension benefits under the RIP.

Participants in the RIP may retire as early as age 55 provided the participant is vested under the plan. Participants become vested after completing five years of continuous employment having worked at least 1,000 hours in each year. Normal retirement date is the first of the month nearest the participant's 65th birthday. Except as noted below, there is a reduction for early retirement for salaried participants who retire between the ages of 55 and 65. An employee who retires from active employment can receive an unreduced pension benefit commencing on the date of retirement if the employee's age (minimum age 55) and Total Service totals 90 points (the "Rule of 90"). The unreduced Rule of 90 benefit is limited to the employee's pension amount accrued to February 28, 2006. Employees receive credit for post-March 1, 2006 age and service for Rule of 90 eligibility.

The normal form of benefit payment is a monthly annuity. Except for payments having a lump sum present value of $100,000 or less under the qualified plan, no lump sum payments are permitted. Various forms of annuity payments (including life, joint and survivor, period certain and level income options) are available under the pension plans. The annuity payments for these options are determined by actuarially adjusting the life annuity pension amount for the selected form of payment. The formula for the regular life annuity pension benefit for salaried employees under the RIP is based on the following factors:

- the participant's Average Final Compensation (the "AFC") which is the average of the three highest years of eligible compensation (base salary plus annual incentive) during the last ten years of employment;
- the participant's number of years of Total Service (credited years of employment with the Company) used to calculate the pension amount; and
- the participant's Adjusted Covered Compensation (the "ACC"), which is a percentage of the average Social Security tax base for the 35-year period ending with the year the participant will qualify for an unreduced Social Security pension benefit.

The unreduced annual life annuity pension is the sum of the following four calculations, each of which may not be less than zero:

1. AFC x 0.009 x Total Service to a maximum of 35 years; plus

2. (AFC – ACC) x 0.005 x Total Service to 35 years; plus
3. (AFC – 2 x ACC) x 0.0015 x Total Service to 35 years; plus
4. AFC x 0.012 x Total Service over 35 years.

To the extent the participant is eligible for an EPA pension benefit that can be paid from the RIP, all of the allowable portion of the calculated EPA annuity will be added to the regular pension amount. EPA annuity amounts that cannot be paid from the qualified plan are forfeited.

Special provisions apply if the qualified pension plan is terminated within five years following an Extraordinary Event, as this term is defined in the RIP. Upon the occurrence of such an event, plan liabilities would first be satisfied, and then remaining plan assets would be applied to increase retirement income to employees. The amount of the increase is based on the assumption that the employee would have continued employment with Armstrong until retirement. The NEOs who are eligible for RIP pension benefits would be entitled to this benefit under these circumstances.

The assumptions used to calculate the actuarial present values shown in the table above are as follows:

- Discount rated used to value benefit obligations equals 4.26%;
- RP 2014 Projected from 2006 with MP2018;
- EPA interest rate of 2.80%;
- 1994 GAR (RR2001-62) Mortality Table for EPA annuity conversion; and
- Retirement at age 65 or Rule of 90 eligibility, as specified.

NONQUALIFIED DEFERRED COMPENSATION

The table below shows the executive contributions, earnings and account balances for each NEO who participates in the NQDCP.

Name	Executive Contributions in 2018 ($)[1]	Registrant Contributions in 2018 ($)[2]	Aggregate Earnings in 2018 ($)	Aggregate Withdrawals/ Distributions ($)	Aggregate Balance at 12/31/18 ($)
Victor D. Grizzle	86,426	64,819	(39,368)	—	621,005
Brian L. MacNeal	30,501	22,876	(12,008)	—	163,394
Charles M. Chiappone	—	—	(2,821)	—	45,728
Mark A. Hershey	34,986	26,240	(35,576)	—	481,133
Ellen R. Romano	18,463	13,847	(2,215)	—	30,095
David S. Cookson	Not Eligible				

(1) The amount in this column is also reported as either Salary or Non-Equity Incentive Plan Compensation in the SCT.

(2) The amount in this column is also reported in the All Other Compensation column of the SCT.

(3) The table below reflects amounts reported in the aggregate balance at last fiscal year end that were previously reported as compensation to the NEO in the SCT for previous years.

Name	Amount Previously Reported ($)
Victor D. Grizzle	429,634
Brian L. MacNeal	90,271
Charles M. Chiappone	11,952
Mark A. Hershey	309,383

Our defined benefit pension plans were closed to new salaried participants effective January 1, 2005, and frozen for existing salaried participants who did not meet the age and service requirements as of March 1, 2006. Pension benefits were frozen for all salaried employees on December 31, 2017.

All salaried employees, including the NEOs, are eligible to participate in a 401(k) savings plan. We match 100% on the first 4% of employee contributions and 50% on the next 4% of employee contributions.

The NQDCP was established to provide benefits similar to the 401(k) plan as it applies to eligible employees whose eligible earnings (base salary plus annual incentive) exceed 12.5 times the Internal Revenue Code 402(g) elective deferral limit in effect for the plan year. A participant may elect to defer up to 25% of eligible base salary earnings and up to 25% of eligible annual incentive earnings. The Company matching contribution will be the same as that provided under the 401(k) savings plan with the Company match. Participants may transfer account balances between any of the applicable plans' available investment options.

Under the NQDCP, participants become 100% vested in the Company match account after completing three years of continuous employment having worked at least 1,000 hours in each year.

Under the NQDCP, except in the case of an unforeseeable emergency or having reached age 70, no in-service distributions are permitted. Participants can elect to receive plan benefits as a single lump sum or in 120 monthly installments commencing after the date of the participant's termination of employment. All elections must comply with the Internal Revenue Code requirements. If the total account value is less than $10,000, the entire account balance will be paid as a single sum at the time of termination. In the event of a participant's death, any remaining payments shall be paid to the participant's designated beneficiary or estate.

Under the NQDCP, the Company reserves the right to cause the participant to forfeit or require repayment of the Company match benefits where the participant is discharged for willful, deliberate or gross misconduct or where the participant has engaged in conduct that is injurious to the Company.

POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

The tables below summarize the estimated value of the potential payments and benefits under the Company's plans and arrangements to which each NEO would be entitled upon termination of employment under the circumstances indicated. Except for the continuation of health and welfare benefits and outplacement support, amounts would be paid as a lump sum at termination. The amounts shown assume that such termination was effective December 31, 2018.

The "Change in Control" column assumes that there is no limitation on payments under the "best net" provision in each CIC agreement relating to tax under Section 4999 of the Internal Revenue Code. Amounts in the "Change in Control" column are "double trigger" payments and are therefore applicable only in the event both a change in control ("CIC") event and either an involuntary (without cause) termination or a termination for Good Reason under the CIC agreement occur. The PSUs are valued at target.

Victor D. Grizzle

	Reason for Termination				
Program Element	Resignation	Involuntary for Cause	Involuntary Termination without Cause	Termination for Good Reason	Change in Control
Cash Severance	—	—	$3,000,000	$3,000,000	$3,750,000
Health & Welfare Benefit Continuation	—	—	—	—	98,972
Outplacement Support	—	—	30,000	30,000	30,000
Pro-rated Bonus	—	—	750,000	750,000	750,000
Accelerated Long-Term Incentives					
Performance Shares	—	—	—	—	13,285,443
Restricted Stock	—	—	—	—	—
Stock Options	—	—	—	—	—
Total	—	—	$3,780,000	$3,780,000	$17,914,415

Brian L. MacNeal

	Reason for Termination				
Program Element	Resignation	Involuntary for Cause	Involuntary Termination without Cause	Termination for Good Reason	Change in Control
Cash Severance	—	—	$1,020,000	$1,020,000	$1,360,000
Health & Welfare Benefit Continuation	—	—	—	—	82,522
Outplacement Support	—	—	30,000	30,000	30,000
Pro-rated Bonus	—	—	255,000	255,000	255,000
Accelerated Long-Term Incentives					
Performance Shares	—	—	—	—	2,489,642

Restricted Stock	—	—	—	—	—
Stock Options	—	—	—	—	—
Total	—	—	$1,305,000	$1,305,000	$4,217,164

Charles M. Chiappone

	Reason for Termination				
Program Element	Resignation	Involuntary for Cause	Involuntary without Cause	Termination for Good Reason	Change in Control
Cash Severance	—	—	$1,008,000	$1,008,000	$1,344,000
Health & Welfare Benefit Continuation	—	—	—	—	90,169
Outplacement Support	—	—	30,000	30,000	30,000
Pro-rated Bonus	—	—	252,000	252,000	252,000
Accelerated Long-Term Incentives					
Performance Shares	—	—	—	—	1,816,501
Restricted Stock	—	—	—	—	—
Stock Options	—	—	—	—	—
Total	—	—	$1,290,000	$1,290,000	$3,532,670

Mark A. Hershey

	Reason for Termination				
Program Element	Resignation	Involuntary for Cause	Involuntary without Cause	Termination for Good Reason	Change in Control
Cash Severance	—	—	$1,006,032	$1,006,032	$1,341,376
Health & Welfare Benefit Continuation	—	—	—	—	76,644
Outplacement Support	—	—	30,000	30,000	30,000
Pro-rated Bonus	—	—	251,508	251,508	251,508
Accelerated Long-Term Incentives					
Performance Shares	—	—	—	—	1,346,805
Restricted Stock	—	—	—	—	525,345
Stock Options	—	—	—	—	—
Total	—	—	$1,287,540	$1,287,540	$3,571,678

Ellen R. Romano

	Reason for Termination				
Program Element	Resignation	Involuntary for Cause	Involuntary without Cause	Termination for Good Reason	Change in Control
Cash Severance	—	—	$ 744,977	$ 744,977	$993,302
Health & Welfare Benefit Continuation	—	—	—	—	50,489
Outplacement Support	—	—	30,000	30,000	30,000

Pro-rated Bonus	—	—	176,231	176,231	176,231
Accelerated Long-Term Incentives					
Performance Shares	—	—	—	—	811,389
Restricted Stock	—	—	—	—	348,678
Stock Options	—	—	—	—	—
Total	—	—	$ 951,208	$ 951,208	$2,410,089

Resignation or Involuntary Termination for Cause

No incremental benefits are provided to any of the NEOs in the event of a voluntary resignation or an involuntary termination for Cause. Cause is defined as (i) the willful and continued failure by the executive to substantially perform the executive's duties after a written demand for substantial performance is delivered to the executive by the Board, or (ii) the willful engaging by the executive in conduct which is demonstrably and materially injurious to the Company, or (iii) the executive's conviction of any felony.

Involuntary Termination without Cause in the absence of CIC

In the event of a qualifying involuntary termination, all salaried employees are eligible for continuation of health care and life insurance benefits at active employee premium contributions for a period of six months unless the employee is eligible for and elects retiree health care coverage. In addition, senior executives, including the NEOs, are eligible for twelve months of executive outplacement support provided by an outside service provider.

Pursuant to the individual separation agreements, and upon the execution of a release of claims, Messrs. Grizzle, MacNeal, Chiappone, Hershey and Ms. Romano are entitled to severance upon a termination by the Company without cause or Good Reason

(as defined below) in an amount equal to one and one-half times (two times for Mr. Grizzle) their then current annual base salary plus target annual incentive under the Company's AIP program, payable in lump sum, and a pro-rated annual incentive bonus based on actual performance for the year of termination, payable at the time that bonuses are paid to employees of the Company

For purposes of the separation agreements, Good Reason is generally defined to mean: (i) a material diminution in authority, duties, or responsibilities or the assignment of duties or responsibilities that are materially inconsistent with those currently in effect; (ii) a 10% reduction of base salary, except for across-the-board salary reductions similarly affecting all senior executive officers of the Company; (iii) the relocation of principal place of employment to a location more than 50 miles from his current principal place of employment; (iv) a material breach by the Company of its obligations under the severance agreement; or (v) failure of the Company to obtain assumption and agreement by a successor of the Company to be bound by the severance agreement.

Information in the tables above assumes that any termination was effective December 31, 2018 and is based on the program parameters in effect as of December 31, 2018 as outlined above.

Qualifying Involuntary Termination Following a Change in Control

Under each executive's separation agreement, the executive is entitled to receive severance payments upon involuntary termination without cause or termination for Good Reason within two years following a CIC, or within six months preceding a CIC if the termination is in connection with a potential CIC. Termination for Good Reason is defined in each executive's individual CIC agreement and includes any one of the following events following a CIC:

(i) the assignment to the executive of any duties inconsistent with the executive's status as an executive officer of the Company or a substantial adverse alteration in the nature or status of the executive's responsibilities, including diminution as a result of the Company no longer being a publicly traded corporation following the CIC;
(ii) a reduction by the Company in the executive's annual base salary;
(iii) relocation of the executive's principal place of employment to a location more than 50 miles from the principal place of employment immediately before the CIC;
(iv) failure by the Company to pay to the executive any portion of the executive's current compensation; or
(v) failure by the Company to continue in effect any compensation or benefit plan in which the executive participates immediately prior to a CIC which is material to the executive's total compensation unless an equitable arrangement has been made.

CIC Arrangements – Key Terms

We will not provide tax gross-ups under Sections 280G and 4999 of the Internal Revenue Code to any of our officers. Set forth below are certain key terms of the CIC agreements:

Term of Agreement	Fixed one-year term that automatically renews for an additional year unless notice is given at least 90 days prior to the anniversary of intent not to renew; term automatically continues for two years if the CIC occurs during term
Severance Benefits	2.5 times base salary plus target AIP for Mr. Grizzle, two times base salary plus target AIP for Messrs. MacNeal, Chiappone, Hershey and Ms. Romano

Pro rata AIP	Prorated target AIP bonus for year of termination
Accelerated Equity Vesting	Double-trigger accelerated vesting (requires a CIC and qualifying termination of employment) for stock options, RSUs, PSUs and other equity grants to vest if assumed by the acquirer; the Compensation Committee may cash out equity grants if not assumed by the acquirer.
280G Taxation	Any amounts paid under the CIC Agreement will be reduced to the maximum amount that can be paid without being excess parachute payments under Internal Revenue Code Section 280G that are subject to the excise tax imposed under Internal Revenue Code Section 4999, but only if the after-tax benefit of the reduced amount is higher than the after-tax benefit of the unreduced amount

"Change in Control" (CIC) generally means the occurrence of one of the following events:

(I) any person is or becomes the beneficial owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such person any securities acquired directly from the Company or its affiliates) representing 35% or more of the combined voting power of the Company's then outstanding securities, excluding any person who becomes such a beneficial owner in connection with a transaction described in clause (i) of paragraph (III) below; or

(II) the following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on the date hereof, constitute the Company's board of directors and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Company's board of directors or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the date hereof or whose appointment, election or nomination for election was previously so approved or recommended; or;

(III) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation, other than (i) a merger or consolidation immediately following which the individuals who comprise the Company's board of directors immediately prior thereto constitute at least a majority of the board of directors of the Company, the entity surviving such merger or consolidation or, if the Company or the entity surviving such merger is then a subsidiary, the ultimate parent thereof, or (ii) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the beneficial owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such person any securities acquired directly from the Company or its affiliates) representing 35% or more of the combined voting power of the Company's then outstanding securities; or

(IV) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets immediately following which the individuals who comprise the board of directors of the Company immediately prior thereto constitute at least a majority of the board of directors of the entity to which such assets are sold or disposed or any parent thereof.

BOARD'S ROLE IN RISK MANAGEMENT OVERSIGHT

Our Board oversees the Company's risk profile and management processes for assessing and managing risk, both as a full Board and through its committees, which meet regularly and report to the full Board. Management is charged with managing risk through robust internal policies and controls.

The Company has maintained an enterprise risk management program since 2005. Risk management is an integral part of the Company's culture. Management's role is to identify, mitigate, guide and review the efforts of our business units, consider whether the residual risks are acceptable, and approve plans to deal with serious risks. Our Board's role in risk management is to review the performance and functioning of the Company's overall risk management efforts and management's establishment of appropriate systems for managing risk. Specifically, our Board reviews management's:

- processes to identify matters that create inappropriate risk to achieving our business plans;
- processes to assess the likelihood and impact of such risks in order to prioritize them;
- identification of major risks and how we define "major;"
- identification of primary risk mitigation owners;
- mitigation of major risks, and our view of the resulting residual risk; and
- monitoring of major risks.

Management provides its feedback on business segment risks during periodic business reviews and annual strategic planning discussions. Senior management periodically meets with designated risk mitigation owners and assesses control measures. In addition, senior management regularly reevaluate the appropriateness of risk assessments and priorities. This process includes identifying risks that could prevent achievement of business goals or plans. Our internal audit group uses the resulting information as a basis for developing its audit plan.

Our Board periodically reviews summary reports that assess the strategic, operational, infrastructure and external risks facing the Company. Each Board committee, consistent with its charter, assists our Board in overseeing the review of certain risks that are particularly within its purview, including as described in "BOARD MEETINGS AND COMMITTEES", as described in "CORPORATE GOVERNANCE" in Item 10 above.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

None of the members of the Compensation Committee has ever been an officer or employee of the Company or its subsidiaries, or had any relationship with the Company that requires disclosure under applicable SEC regulations.

COMPENSATION OF DIRECTORS

In establishing compensation for our nonemployee directors, including the overall value of compensation and the mix of cash and equity, the Board analyzes competitive market data and any underlying director compensation trends generally, and compares our program to those of similarly sized companies in comparable industries. The Board is compensated through a combination of annual retainers and equity grants in the form of stock units. The Board believes that this level of compensation supports the Company's ability to attract directors with suitable backgrounds and experiences. A director who is an officer or employee of the Company or its subsidiaries is not compensated for service on the Board or on any committee of the Board.

On an annual basis, the Governance Committee reviews the compensation program for nonemployee directors, including the 2008 Directors' Stock Unit Plan, as amended (the "2008 Directors Stock Unit Plan") and the 2016 Directors' Stock Unit Plan, as amended (the "2016 Directors Stock Unit Plan"). The review includes an analysis of competitive market data and any underlying director compensation trends with assistance from an independent compensation consultant, as required. Following that review in 2018 and based upon a recommendation by the Governance Committee, the Board approved a decrease of $40,000 for the annual retainer fee (cash) for the Chair and a decrease of $40,000 for the annual retainer fee (equity) for the Chair, each effective as of the 2018 Annual Meeting.

The following table describes the elements of the compensation program for nonemployee directors in 2018:

Director Compensation Program

Element	Amount	Terms
Annual Retainer (Cash)	$90,000 $180,000** (Chair)	paid in quarterly installments, in arrears
Annual Retainer (Equity)	$105,000 $185,000** (Chair)	annual (or pro-rated) grant of Director RSUs*** • 2016 Directors Stock Unit Plan • vest at one year anniversary or earlier change in control if serving on such date • pre-2011 grants deliverable six months following end of service (except removal for cause) • 2011 and later grants deliverable on date of end of service (except removal for cause) • one share per one unit upon delivery • no voting power until delivered • dividend equivalent rights

Committee Chair Fees*	$20,000 (AC; MDCC) $10,000 (FC; NGC)	paid in quarterly installments, in arrears
Special Assignment Fees	$2,500 per diem ($1,250 for less than four hours)	may be paid in connection with: • one-on-one meetings with the CEO • plant visits • other non-scheduled significant activities approved by the Chair

*Committees: AC (Audit); FC (Finance); MDCC (Management Development & Development); NGC (Nominating & Governance)

**In July 2018, the Board, on the recommendation of the Governance Committee, approved a decrease of $40,000 annual retainer fee (cash) for the Chair and a decrease of $40,000 for the annual retainer fee (equity) for the Chair, effective as of the 2018 Annual Meeting

*** In prior years, the Annual Retainer (Equity) grants were made pursuant to the 2011 Directors Stock Unit Plan, which did not provide for deferral of equity vesting, which would then vest at the one year anniversary or earlier change in control if serving on such date. Grants made under this plan pre-2011 grants were deliverable six months following end of service (except removal for cause), while grants made 2011 and later were deliverable on date of end of service (except removal for cause).

Annual grants for the equity portion of the retainer are effective as of the first business day following the date of the Annual Meeting, and the amount of each grant is determined by the NYSE closing price of our shares of Common Stock on that date.

Director Compensation Table – 2018

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)(1)	Option Awards ($)(2)	Non-Equity Incentive Plan Compensation ($)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)(3)(f)	All Other Compensation ($) (g)(4)	Total ($) (h)
(a)	(b)	(c)	(d)	(e)			
S. Askren	110,000	105,000	—	—	—	5,043	220,043
T. Huang	90,000	105,000	—	—	—	4,567	199,567
L. McWilliams(5)	115,000	145,000	—	—	—	4,567	264,567
J. Melville	100,000	105,000	—	—	—	2,632	207,632
J. O'Connor(6)	90,000	—	—	—	—	889	90,889
J. Roberts	110,000	105,000	—	—	—	3,844	218,844
G. Spivy(7)	90,000	105,000	—	—	—	602	195,602
R. Templin	100,000	105,000	—	—	—	—	205,000
C. Thomas	90,000	105,000	—	—	—	979	195,979

(1) Represents amounts that are in units of our shares of Common Stock. The amounts reported represent the aggregate grant date fair value for Director RSUs granted during the fiscal year, as calculated under the Financial Accounting Standards Board's Accounting Standards Codification Topic 718. Under ASC Topic 718, the grant date fair value is calculated using the closing market price of our shares of Common Stock on the date of the grant. For the number of Director RSUs credited to each director's account as of March 31, 2018, see SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, MANAGEMENT AND DIRECTORS.

(2) Directors do not receive stock options as part of their compensation for service on our Board.

(3) Under the 2016 Directors Stock Unit Plan, directors may elect to defer the equity compensation that they receive as part of their compensation for services on our Board.

(4) Represents cash dividend equivalent on vested undistributed shares.

(5) Appointed as Chairman following the 2018 Annual Meeting.

(6) Elected not to stand for reelection as of the 2018 Annual Meeting. Information provided is as of the 2018 Annual Meeting.

(7) Under an agreement with ValueAct Capital, Mr. Spivy is deemed to receive the cash portion of his retainer for Board service and hold the Director RSUs for the benefit of ValueAct Capital Master Fund, L.P. and indirectly for (i) VA Partners I, LLC as General Partner of ValueAct Capital Master Fund, L.P., (ii) ValueAct Capital Management, L.P. as the manager of ValueAct Capital Master Fund, L.P., (iii) ValueAct Capital Management, LLC as General Partner of ValueAct Capital Management, L.P., (iv) ValueAct Holdings, L.P. as the sole owner of the limited partnership interests of ValueAct Capital Management, L.P. and the membership interests of ValueAct Capital Management, LLC and as the majority owner of the membership interests of VA Partners I, LLC and (v) ValueAct Holdings GP, LLC as General Partner of ValueAct Holdings, L.P.

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

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, MANAGEMENT AND DIRECTORS

Certain Beneficial Owners

The following table sets forth information regarding persons or groups known to us to be beneficial owners of more than 5% of our outstanding shares of Common Stock as of March 31, 2019 or the date of any applicable reports filed by such persons or groups prior to that date. Beneficial ownership is determined in accordance with applicable rules of the SEC.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership		Percent of Class Outstanding[1]
Lazard Asset Management LLC 30 Rockefeller Plaza New York, NY 10112	5,835,856	(2)	12.0%
The Vanguard Group 100 Vanguard Blvd. Malvern, PA 19355	4,963,165	(3)	10.2%
T. Rowe Price Associates, Inc. 100 E. Pratt Street Baltimore, MD 21202	3,636,592	(4)	7.5%

(1) Based on 48,640,635 shares of the Company's Common Stock outstanding as of March 31, 2019, as reported to the NYSE (61,717,806 shares reported, less 13,077,171 shares held in treasury).

(2) On a Schedule 13G Amendment filed with the SEC on February 13, 2019, Lazard Asset Management LLC reported that, as of December 31, 2018, it had sole voting power with respect to 3,741,912 shares of Common Stock of the Company and sole dispositive power with respect to 5,835,856 shares of Common Stock of the Company.

(3) On a Schedule 13G Amendment No. 4 filed on with the SEC on February 11, 2019, the Vanguard Group - 23-1945930 reported, as of January 31, 2019, sole voting power with respect to 25,010 shares of Common Stock of the Company, shared voting power with respect to 5,067 shares of Common Stock, sole dispositive power with respect to 4,937,322 shares of Common Stock of the Company and shares dispositive power with respect to 25,843 shares of Common Stock as follows: Vanguard Fiduciary Trust Company, a wholly owned subsidiary of The Vanguard Group, Inc., is the beneficial owner of 20,776 shares or .04% of the shares of Common Stock outstanding of the Company as a result of its serving as investment manager of collective trust accounts, Vanguard Investments Australia, Ltd., a wholly owned subsidiary of The Vanguard Group, Inc., is the beneficial owner of

9,301 shares or 0.1% of the shares of Common Stock outstanding of the Company as a result of its serving as investment manager of Australian investment offerings.

(4) On a Schedule 13G Amendment No. 1 filed on with the SEC on February 14, 2019, T. Rowe Price Associates, Inc. reported, as of December 31, 2018, that it had sole voting power with respect to 702,305 shares of Common Stock of the Company and sole dispositive power with respect to 3,626,592 shares of Common Stock of the Company, and T. Rowe Price New Horizons Fund, Inc. reported, as of December 31, 2018, that it had sole voting power with respect to 2,912,487 shares of Common Stock outstanding of the Company.

Management and Directors

The following table sets forth, as of March 31, 2019, the amount of shares of Common Stock beneficially owned by all directors, the Company's named executive officers ("NEOs") as identified in the "COMPENSATION DISCUSSION AND ANALYSIS" section and all directors and executive officers as a group in accordance with applicable SEC rules.

Name	Number of Common Shares Beneficially Owned	Number of Shares Subject to Options[1] Exercisable or Which Become Exercisable Within 60 Days	Total Number of Shares Beneficially Owned[2]	Restricted Stock Units[3] / Unvested Options	Total Common Shares Beneficially Owned Plus Restricted Stock Units and Unvested Options
Stan A. Askren	4,910	**	4,910	30,376	35,286
Charles M. Chiappone	4,514	11,992	16,506	18,283	34,789
David S. Cookson[4]	20,869	27,336	48,205	—	48,205
Victor D. Grizzle	35,990	130,309	166,299	146,857	313,156
Mark A. Hershey	18,914	33,723	52,637	35,650	88,287
Tao Huang	—	**	—	27,655	27,655
Brian L. MacNeal	2,222	3,740	5,962	22,680	28,642
Larry S. McWilliams	—	**	—	28,249	28,249
James C. Melville	4,229	**	4,229	16,599	20,828
James J. O'Connor[5]	62,484	**	62,484	—	62,484
John J. Roberts	910	**	910	23,523	24,433
Ellen R. Romano	8,654	—	8,654	22,223	30,877
Gregory P. Spivy[6]	—	**	—	4,997	4,997
Roy W. Templin	7,114	**	7,114	1,558	8,672
Cherryl T. Thomas	—	**	—	7,150	7,150
Directors and Executive Officers as a group (16 persons)[7]	176,755	245,268	422,023	398,122	820,145

(1)Directors do not receive stock option grants under the 2008 Directors Stock Unit Plan, the 2016 Directors Stock Unit Plan or as part of the compensation program for directors.

(2) No individual director or executive officer beneficially owns 1% of the shares of Common Stock outstanding as of March 31, 2019. The directors and executive officers as a group beneficially own approximately 1.7% of the shares of Common Stock outstanding as of March 31, 2019.

(3) Represents, in the case of NEOs, unvested time-based restricted stock units ("NEO RSUs") granted to them under the 2006, 2011 and 2016 Long-Term Incentive Plan, as applicable, and, in the case of nonemployee directors, vested and unvested stock units (Director RSUs) granted to them as part of their annual retainer

for Board service that are not acquirable by the director within 60 days of March 31, 2018 under the terms of the 2008 Directors Stock Unit Plan and the 2016 Directors Stock Unit Plan. See Directors Aggregate Ownership table below for further information. Neither the unvested NEO RSUs nor the Director RSUs have voting power.

(4) Retired from the Company as of July 1, 2018. Information provided is as of July 1, 2018.

(5) Elected not to stand for reelection as of the 2018 Annual Meeting. Information provided is as of the 2018 Annual Meeting.

(6) Under the Nomination Agreement with ValueAct Capital, Mr. Spivy is deemed to hold the Director RSUs for the benefit of ValueAct Capital Master Fund, L.P. and indirectly for (i) VA Partners I, LLC as General Partner of ValueAct Capital Master Fund, L.P., (ii) ValueAct Capital Management, L.P. as the manager of ValueAct Capital Master Fund, L.P., (iii) ValueAct Capital Management, LLC as General Partner of ValueAct Capital Management, L.P., (iv) ValueAct Holdings, L.P. as the sole owner of the limited partnership interests of ValueAct Capital Management, L.P. and the membership interests of ValueAct Capital Management, LLC and as the majority owner of the membership interests of VA Partners I, LLC and (v) ValueAct Holdings GP, LLC as General Partner of ValueAct Holdings, L.P. Reflects the transfer to ValueAct Capital Master Fund, L.P. of 4,910 shares, which were previously awarded to Mr. Spivy pursuant to the Company's director compensation program. Under an agreement with ValueAct Capital, Mr. Spivy held these shares for the benefit of the limited partners of ValueAct Capital Master Fund, L.P. and as such, the vested shares have been transferred.

(7) Includes amounts for Stephen F. McNamara, VP, Controller.

Directors – Aggregate Ownership

The table below sets forth, as of March 31, 2019, additional detail as to each nonemployee director's ownership and rights to ownership in the Company's equity.

Name	Common Shares	Vested Restricted Stock Units[1]	Unvested Restricted Stock Units[2]	Phantom Stock Units[3]	Total Equity[4]	Total Value[5]
Stan A. Askren	4,910	28,818	1,558	—	35,286	$2,802,414
Tao Huang	—	26,097	1,558	—	27,655	$2,196,360
Larry S. McWilliams[7]	—	26,097	2,152	—	28,249	$2,243,536
James C. Melville	4,229	15,041	1,558	—	20,828	$1,654,160
James J. O'Connor[8]	62,484	—	—	—	62,484	$4,962,479
John J. Roberts	910	21,965	1,558	11,773	24,433	$2,875,481 [6]
Gregory P. Spivy[9]	—	3,439	1,558	—	4,997	$396,862
Roy W. Templin	7,114	—	1,558	—	8,672	$688,730
Cherryl T. Thomas	—	5,592	1,558	—	7,150	$567,853
Total	79,647	127,049	13,058	11,773	219,366	$18,387,875

(1) Under the terms of the 2008 Directors Stock Unit Plan, the Director RSUs granted to each director as part of his retainer for Board service are not acquirable by the director until (i) for those Director RSUs granted prior to June 2011, the earlier of the six-month anniversary of the director's separation from the Board for any reason other than a removal for cause or the date of a Change in Control Event (as defined in the 2008 Directors Stock Unit Plan); or (ii) for those Director RSUs granted during and after June 2011, on the date of the director's separation from the Board for any reason other than a removal for cause or the date of a Change in Control Event (as defined in the 2008 Directors Stock Unit Plan). Under the terms of the 2016 Directors Stock Unit Plan, the Director RSUs granted to each director as part of his retainer for Board Service shall vest (contingent upon the Director's continued service as of such date) on the earlier of (i) the one-year anniversary of the grant; (ii) the death or total and permanent disability of the Director; or (iii) the date of any Change in Control Event (as defined in the Plan).

(2) Under the terms of the 2008 Directors Stock Unit Plan, Director RSUs vest on the first anniversary of the grant date. Under the terms of the 2016 Directors Stock Unit Plan, the vested units will be acquirable by the Director, at the election of the Director: (i) at the vesting of the units at the one-year anniversary of the grant or (ii) at the time of the Director's termination of service. All of the director RSUs listed in this column will vest on July 12, 2019. Amount excludes $375.60 in accrued dividends (non-interest bearing) for the Chairman.

(3) Phantom Stock Units awarded under the Company's 2006 Phantom Stock Unit Plan ("Phantom Stock Unit Plan") become payable ("Phantom Units Payment Date") in cash on the earlier of the six-month anniversary of the director's separation from the Board for any reason other than a removal for cause or the date of a Change in Control Event (as defined in the Phantom Stock Unit Plan). The cash payment amount will be equal to the number of units multiplied by the closing price of the shares of Common Stock on the stock exchange on which such shares are traded on the Phantom Units Payment Date.

(4) Excludes Phantom Stock Units.

(5) Represents an amount equal to the sum of the number of shares of Common Stock beneficially owned, plus the number of vested and unvested Director RSUs, plus the number of Phantom Stock Units held, as applicable,

multiplied by $79.42, which was the closing price of the shares of Common Stock of the Company on the NYSE on March 29, 2019.

(6) Amount excludes $278,211.61 in accrued dividends (non-interest bearing).

(7) Appointed Chairman following the 2018 Annual Meeting.

(8) Elected not to stand for re-election at the 2018 Annual Meeting. Information provided is as of the 2018 Annual Meeting. Information provided is as of the 2018 Annual Meeting.

(9) Under the Nomination Agreement with ValueAct Capital, Mr. Spivy is deemed to hold the Director RSUs for the benefit of ValueAct Capital Master Fund, L.P. and indirectly for (i) VA Partners I, LLC as General Partner of ValueAct Capital Master Fund, L.P., (ii) ValueAct Capital Management, L.P. as the manager of ValueAct Capital Master Fund, L.P., (iii) ValueAct Capital Management, LLC as General Partner of ValueAct Capital Management, L.P., (iv) ValueAct Holdings, L.P. as the sole owner of the limited partnership interests of ValueAct Capital Management, L.P. and the membership interests of ValueAct Capital Management, LLC and as the majority owner of the membership interests of VA Partners I, LLC and (v) ValueAct Holdings GP, LLC as General Partner of ValueAct Holdings, L.P. Reflects the transfer to ValueAct Capital Master Fund, L.P. of 4,910 shares, which were previously awarded to Mr. Spivy pursuant to the Company's director compensation program. Under an agreement with ValueAct Capital, Mr. Spivy held these shares for the benefit of the limited partners of ValueAct Capital Master Fund, L.P. and as such, the vested shares have been transferred.

Stock Ownership Guidelines

In accordance with our Corporate Governance Principles, each non-employee director must acquire and then hold until six months following the end of his or her service, phantom units and/or shares of Common Stock equal in value to three times the director's annual retainer at the time he or she joined the Board. Directors endeavor to reach that level of ownership within five years of joining the Board. With the exception of Mr. Spivy and Ms. Thomas, all of the current directors have achieved this ownership requirement. All of the current directors have achieved this ownership requirement. As an officer of the Company, Mr. Grizzle is not subject to the stock ownership guidelines for nonemployee directors.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

Securities authorized for issuance under equity compensation plans as of December 31, 2018.

	(a) Number of securities to be issued upon exercise of outstanding options, warrants, and rights		(b) Weighted-average exercise price of outstanding options, warrants, and rights		(c) Number of securities remaining available for future Issuance under equity compensation plans (excluding securities reflected in column (a))	
Equity compensation plans approved by security holders	1,363,884	(1)	$ 41.71	(2)	3,806,103	(3)
Equity compensation plans not approved by security holders	—		Not Applicable		—	
Totals	1,363,884		$ 41.71	(2)	3,806,103	(3)

(1) Includes RSUs, PSUs and stock options to purchase our shares of Common Stock granted under the Company's 2016 LTIP and 2008 and 2016 Directors Stock Unit Plan.

(2) Represents the weighted-average exercise price of the outstanding stock options only; the outstanding RSUs and PSUs are not included in this calculation.

(3) Reflects shares available pursuant to the issuance of stock options, RSUs, PSUs, or other stock-based awards under the 2016 LTIP and 2008 and 2016 Director Plan. The aggregate number of shares of Common Stock reserved for the grant or settlement of awards under the 2016 LTIP (Share Limit) is 5,142,138, subject to adjustment as provided therein. With respect to awards granted on or after June 24, 2011, the number of shares of Common Stock reserved for award and issuance under this LTIP is reduced on a one-for-one basis for each Common Share subject to a Stock Option or Stock Appreciation Right and is reduced by a fixed ratio of 1.6 shares of Common Stock for each Common Share subject to a Restricted Stock Award or Stock Unit granted under the LTI.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Any related party transaction that may arise is required to be reviewed and approved by the Governance Committee, who must have no connection with the transaction. Related party transactions would include transactions by the Company or any subsidiary with any director, director nominee, executive officer, shareholders owning more than 5% of the Company's outstanding shares of common stock, per share par value $0.01 ("Common Stock"), or immediate family member of any of the foregoing, and transactions with businesses affiliated with any director or director nominee that meet the specifications in Item 404 of Regulation S-K under the Exchange Act. The Chair of the Governance Committee has authority to approve transactions involving sums less than the disclosure threshold set in Item 404. The material details of any such matters are required to be disclosed to the Governance Committee at its next regular meeting.

Following the expiration of the Nomination Agreement between ValueAct Capital and the Company in 2016, Mr. Spivy was elected to the Board and continues to receive compensation pursuant to our nonemployee director compensation program. Mr. Spivy has directed that his cash retainers be directly paid to ValueAct Capital Management, L.P., and under an agreement with ValueAct Capital, Mr. Spivy is deemed to hold it for the benefit of ValueAct Capital Master Fund L.P., and indirectly for other members of the ValueAct Group.

DIRECTOR INDEPENDENCE

It is the policy of the Company that our Board consist of a majority of directors who are not employees and are independent under all applicable legal and regulatory requirements, including the independence requirements of the NYSE. For purposes of evaluating the independence of directors, in accordance with our Corporate Governance Principles, our Board will consider all relevant facts and circumstances in making an independence determination, and not merely from the standpoint of the director, but also from that of persons or organizations with which the director has an affiliation. Consistent with our Corporate Governance Principles, to be considered “independent,” the Governance Committee has established qualifications to assist in the determination, which either meet or exceed the independence requirements of the NYSE.

Our Board has determined that all of our directors, with the exception of Mr. Grizzle, our President and CEO, are independent under NYSE listing standards and our Corporate Governance Principles. In addition, our Board has further determined that each of the members of the Audit Committee, the Compensation Committee, the Finance Committee and the Governance Committee are independent within the meaning of the NYSE listing standards, any applicable minimum standards required by the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and enhanced standards required for membership on such committees by our Bylaws, namely that directors serving on such committees meet the independence criteria under both NYSE rules and Rule 10A-3(b)(1) under the Exchange Act.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

AUDIT COMMITTEE REPORT

The Audit Committee engaged KPMG LLP as the Company's independent registered public accounting firm for 2018. In making this selection, the Audit Committee considered KPMG LLP's qualifications, discussed with KPMG LLP its independence, and reviewed the audit and non-audit services provided by KPMG LLP to the Company.

Management of the Company has primary responsibility for preparing the Company's financial statements and establishing effective internal control over financial reporting. KPMG LLP is responsible for auditing those financial statements and expressing an opinion on the conformity of the Company's audited financial statements with accounting principles generally accepted in the United States and on the effectiveness of the Company's internal control over financial reporting based on the criteria established in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission. Accordingly, the Audit Committee reviewed and discussed the audited consolidated financial statements for fiscal 2018 with the Company's management. The Audit Committee reviewed and discussed with management the critical accounting policies applied by the Company in the preparation of those financial statements. The Audit Committee also discussed with KPMG LLP the matters required to be discussed by applicable standards of the Public Company Accounting Oversight Board, and had the opportunity to ask KPMG LLP questions relating to such matters. The discussions included the quality, and not just the acceptability, of the accounting principles utilized, the reasonableness of significant accounting judgments, and the clarity of disclosures in the financial statements.

The Audit Committee regularly considers the independence, qualifications and performance of KPMG LLP. Such consideration includes reviewing the written disclosures and the letter received from KPMG LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered public accountants' communications with the Audit Committee concerning independence, and discussing with KPMG LLP their independence.

Based on the reviews and discussions referred to above, the Audit Committee recommended to the Board that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018. The Audit Committee and the Board believe that the continued retention of KPMG LLP to serve as the Company's independent registered public accounting firm is in the best interests of the Company and its shareholders and have recommended that shareholders ratify the appointment of KPMG LLP as the Company's independent registered public accounting firm for the fiscal year 2019.

Submitted by the Audit Committee

John J. Roberts (Chair)

Stan A. Askren

Tao Huang

Roy W. Templin

Cherryl T. Thomas

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FEES PAID TO INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The following table presents fees for professional audit services rendered by KPMG LLP for the audit of our annual consolidated financial statements for 2018 and 2017, as well as fees billed for other services rendered by KPMG LLP. All fees in 2018 and 2017 were pre-approved by the Audit Committee.

(amounts in thousands)	2018	2017
Audit Fees[1]	$3,648	$3,444
Audit Related Fees[2]	90	1,823
Audit and Audit Related Fees Subtotal	3,738	5,267
Tax Fees[3]	2,844	983
All Other Fees	—	—
Total Fees	$6,582	$6,250

(1) Audit Fees are for services rendered in connection with the integrated audit of Armstrong's consolidated financial statements as of and for the year, for which a portion of the billings occurred the following year. Audit fees were also incurred for reviews of consolidated financial statements included in the Company's quarterly reports on Form 10-Q and services normally provided in connection with statutory and regulatory filings. Audit Fees in 2018 also include fees associated with the impact of U.S. tax reform, first year of FASB ASC 606, adoption of FASB ASC 842. Audit Fees in 2017 also include fees associated with the impact of U.S. tax reform, resegmentation of the business, and the adoption of FASB ASC 606.

(2) Audit-Related Fees consisted principally of fees for audits of financial statements of certain employee benefit plans, accounting research assistance on technical topics and other matters with respect to non-U.S. statutory financial statements. Audit-Related Fees in 2017 also include fees associated with sell-side due diligence activities in connection with the sale of the Company's International Business.

(3) Tax Fees were primarily for preparation of tax returns in non-U.S. jurisdictions, assistance with tax audits and appeals and other tax consultation and compliance services. Tax Fees in 2018 also include fees associated with tax consultation and compliance services in connection with the sale of the Company's International Business.

The Audit Committee has considered whether the provision by KPMG LLP of the non-audit services described above was allowed under Rule 2-01(c)(4) of Regulation S-X and was compatible with maintaining auditor independence, and has concluded that KPMG LLP was and is independent of the Company in all respects.

Audit Committee Pre-Approval Policy

The Audit Committee adheres to a policy that requires the Audit Committee's prior approval of any audit, audit-related and non-audit services provided by the firm that serves as our independent registered public accounting firm. Pursuant to this policy, management cannot engage the firm for any services without the Audit Committee's pre-approval. The Audit Committee delegates to the Audit Committee Chair the authority to pre-approve non-audit services for purposes of handling immediate needs, with a report to the full Audit Committee of such approvals at its next meeting. The policy complies with Section 10A(i) of the Exchange Act.

Auditor Tenure

Through more than 90 years of experience with Armstrong, KPMG LLP has gained institutional knowledge of and deep expertise regarding Armstrong's global operations and businesses, accounting policies and practices, and internal control over financial reporting. We believe KPMG LLP's aggregate fees are competitive with peer companies because of KPMG LLP's familiarity with our business.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)All other documents and schedules have been omitted as they were not applicable to this Amendment No. 2.

3.The following exhibits are filed as part of this 2018 Annual Report on Form 10-K:

Exhibit No.	Description
31.1	Certification of Chief Executive Officer required by Rule 13a-15(e) or 15d-15(e) of the Securities Exchange Act.†
31.2	Certification of Chief Financial Officer required by Rule 13a-15(e) of the Securities Exchange Act.†

† Filed herewith.

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.

	ARMSTRONG WORLD INDUSTRIES, INC. (Registrant)
By:	/s/ Victor D. Grizzle Director, President and Chief Executive Officer
Date:	April 30, 2019