



# Proxy Statement for 2019 Annual Meeting of Shareholders

Thursday, January 24, 2019  
2:00 p.m. (Eastern Time)

Corporate Headquarters Auditorium  
7201 Hamilton Boulevard  
Allentown, PA 18195

# Sustainability at Air Products

Providing innovative solutions through deeply-rooted values



**Grow** responsibly through sustainability-driven opportunities that benefit our customers and our world.



We help customers improve their sustainability performance through higher productivity, better quality products, reduced energy use and lower emissions.



**Conserve** resources and reduce environmental footprints through cost-effective improvements.



We set aggressive environmental performance goals for greenhouse gases, energy, water and our fleet, and we measure progress to continually improve our own operations.



**Care** for our employees, customers and communities — protecting our ability to operate and grow.



We continue to nurture a culture of safety, simplicity, speed and self-confidence.

Our goal is zero accidents and zero incidents. We are committed to developing our people, supporting our communities, engaging suppliers and upholding our integrity.



The Company was named to the Dow Jones Sustainability Index (North America), FTSE4Good Index, Ethibel Sustainability Index (Excellence Global) and Corporate Responsibility Magazine's 100 Best Corporate Citizens. For the Company's diversity and inclusion initiatives, it was named a 2018 DiversityInc Noteworthy Company and as a Corporate Equality Index Best Place to Work for LGBT Equality.

# Message to Our Shareholders



“As we take our Five-Point Plan to the next phase of our journey, our goal remains the same: to be the safest, most diverse and most profitable industrial gas company in the world, providing excellent service to our customers.”

December 12, 2018

## Dear Fellow Shareholder:

On behalf of the Board of Directors, I am pleased to invite you to attend the 2019 Annual Meeting of Shareholders of Air Products and Chemicals, Inc. to be held at 2:00 p.m. (Eastern Time), Thursday, January 24, 2019, at the Company's headquarters at 7201 Hamilton Boulevard, Allentown, Pennsylvania. Admission procedures are explained in the attached proxy statement, and directions appear on the last page of these materials. We have arranged to keep parking and navigating our facilities easy for you. I hope you will be able to join us.

Attached you will find a Notice of Annual Meeting and proxy statement that contains additional information, including the items of business and methods you can use to vote your proxy, such as the telephone or Internet. Your vote is important. I encourage you to sign and return your proxy card or use Internet, mobile device or telephone voting prior to the meeting, so that your shares of common stock will be represented and voted at the meeting, even if you cannot attend.

Over the past several years, our talented and dedicated employees have made Air Products the safest and most profitable industrial gas company in the world with the strongest balance sheet. Our strategic Five-Point Plan guided that success and has positioned us for tremendous growth.

Now, we have taken the Five-Point Plan to the next phase of our journey:

1. **Sustain the lead.** To sustain our lead, we will uphold our focus on safety, diversity, profitability and drive to be best-in-class operationally, in everything that we do.
2. **Deploy capital.** Over the next five years, we have at least \$15 billion of capital to commit to high quality industrial gas projects. We are focused on energy, environmental and emerging markets.
3. **Evolve portfolio.** As we deploy capital, we are evolving our portfolio to focus on more large, on-site projects, and we are creating step-change growth opportunities through syngas/gasification and complex megaproject execution.
4. **Change culture.** We are continuing to drive our culture change, building an inclusive and collaborative team that works together and wins together around the world.
5. **Belong and matter.** Finally, as we work hard every day to create value for our shareholders, we are also fulfilling our higher purpose: creating a work environment where people belong and matter, producing products that improve the environment and our customers' processes and promoting collaboration among people of different cultures and backgrounds all over the world.

I am very proud of what we have accomplished so far, and I look forward to meeting with fellow shareholders in January to answer your questions about our progress.

All the best,

A handwritten signature in black ink that reads "Seifi Ghasemi". The signature is stylized and written in a cursive-like font.

Seifi Ghasemi  
Chairman, President and Chief Executive Officer

# Notice of Annual Meeting of Shareholders

## Logistics



### Date and Time

Thursday, January 24, 2019  
2:00 p.m. (Eastern Time)



### Location

Corporate Headquarters  
Auditorium  
7201 Hamilton Boulevard  
Allentown, PA 18195



### Record Date

Shareholders of record at the close of business on November 30, 2018 are entitled to receive this notice and to vote at the meeting.



### Admission

Free parking will be available. Admission procedures are explained on page 60. Directions appear on the last page of this proxy statement.

**Important Notice Regarding Internet Availability of Proxy Materials for the Air Products and Chemicals, Inc. 2019 Annual Meeting of Shareholders:**

Our proxy statement and 2018 Annual Report to Shareholders are available at [www.proxyvote.com](http://www.proxyvote.com).

## Items of Business

	Board Vote Recommendation	Votes Required	Page
<b>Proposal 1.</b> Elect the eight nominees proposed by the Board of Directors as directors for a one-year term ending in 2020.	✓ For	Majority of Votes Cast	1
<b>Proposal 2.</b> Conduct an advisory vote on executive officer compensation.	✓ For	Majority of Votes Cast	17
<b>Proposal 3.</b> Ratify the appointment of Deloitte & Touche LLP as the Company's independent registered public accounting firm for the fiscal year ending September 30, 2019.	✓ For	Majority of Votes Cast	51

Shareholders will also attend to such other business as may properly come before the meeting or any postponement or adjournment of the meeting.

## How to Vote

**Shareholders of Record** (shares registered in your name with the Company's transfer agent) and **Retirement Savings Plan Participants**:



### Internet

[www.proxyvote.com](http://www.proxyvote.com)



### Mobile Device

Scan the QR Code to vote using



### Telephone

1-800-690-6903



### Mail

Complete, sign and mail your proxy card or voting instruction form in the self-addressed envelope provided.



### In Person

For instructions on attending the 2019 Annual Meeting in person, please see page 60.

**Street Name Holders** (shares held through a broker, bank or other nominee): Refer to voting instruction form.

## Important

Whether you plan to attend the meeting or not, please submit your proxy as soon as possible in order to avoid additional soliciting expense to the Company. The proxy is revocable and will not affect your right to vote in person if you attend the meeting.

By order of the Board of Directors,

Sean D. Major  
Executive Vice President, General Counsel and Secretary  
December 12, 2018

# Proxy Statement Highlights

This section summarizes information contained elsewhere in the proxy statement. These highlights do not contain all the information that you should consider before voting or provide a complete description of the topics covered. Please read the entire proxy statement before voting.

## Fiscal 2018 Company Performance Highlights

### Financial Performance

#### EARNINGS PER SHARE



↑ Increased 28%  
over fiscal 2017.

#### ADJUSTED EARNINGS PER SHARE<sup>1</sup>



↑ Increased 18%  
over fiscal 2017,  
representing the fourth  
consecutive year of  
double-digit growth.

#### NET INCOME FROM CONTINUING OPERATIONS



↑ Increased 28%  
over fiscal 2017.

#### ADJUSTED EBITDA<sup>1</sup>



↑ Increased 11%  
over fiscal 2017.



### Safety Performance

The Company continued its improvement in safety performance, with 71% improvement in the employee lost time injury rate and 50% improvement in the employee recordable injury rate versus fiscal 2014 and even greater improvement in contractor injury rates.



### Operational Performance

The Company brought major projects on-stream in China, Korea and the U.S. and announced four large gasification projects and the acquisition of gasification technology.



### Returns to Shareholders

The Company returned nearly \$900 million to shareholders through dividends, increasing dividends for the 36<sup>th</sup> consecutive year.

<sup>1</sup> This is a non-GAAP financial measure. See Appendix A for a reconciliation to the most directly comparable financial measure calculated under GAAP.

# Voting Roadmap

1

**PROPOSAL**

Elect the eight nominees proposed by the Board of Directors as directors for a one-year term ending in 2020.

✓

The Board recommends a vote “**FOR**” each of the eight nominees.

Page 1

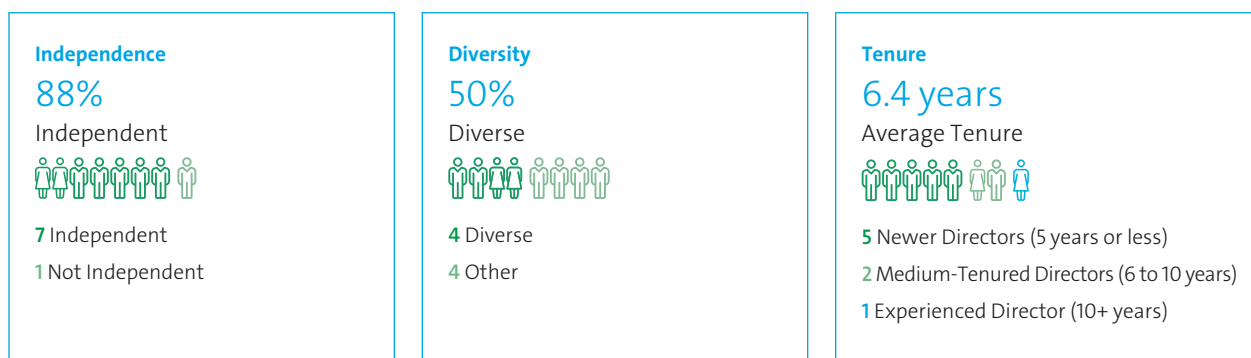
The individuals nominated for election to the Board are all current directors and possess a broad range of qualifications and skills that facilitate strong oversight of Air Products’ management and strategy. Our directors have diverse backgrounds and experiences and have demonstrated a commitment to strong corporate governance, shareholder engagement and sustainability.

## Director Nominees

Name and Current or Previous Position	Independent	Diverse	Tenure (Full Years)	Committees			
				AF	CGN	E	MDC
<b>Susan K. Carter</b> Senior Vice President and Chief Financial Officer of Ingersoll-Rand Public Limited Company	●	●	7	○			○
<b>Charles I. Cogut</b> Retired Partner, Simpson, Thacher & Bartlett LLP	●		3	○	○		
<b>Chadwick C. Deaton</b> Retired Chairman and Chief Executive Officer of Baker Hughes Inc.	●		8		●	○	○
<b>Seifollah Ghasemi</b> Chairman, President and Chief Executive Officer of Air Products and Chemicals, Inc.		●	5			●	
<b>David H. Y. Ho</b> Chairman and Founder of Kiina Investment Ltd.	●	●	5	○			○
<b>Margaret G. McGlynn</b> Retired President and Chief Executive Officer of International AIDS Vaccine Initiative	●	●	13		○		○
<b>Edward L. Monser</b> Retired President and Chief Operating Officer, Emerson Electric Co.	●		5	○		○	●
<b>Matthew H. Paull</b> Retired Senior Executive Vice President and Chief Financial Officer of McDonald’s Corp.	●		5	●	○	○	

AF Audit and Finance    
 CGN Corporate Governance and Nominating    
 ● Chair  
E Executive    
 MDC Management Development and Compensation    
 ○ Member

## Board Snapshot



## Director Qualifications and Skills

The Board possesses a broad range of qualifications and skills that facilitate strong oversight of Air Products' management and strategy. The following matrix identifies the primary skills that the Corporate Governance and Nominating Committee and the Board considered in connection with the re-nomination of the current directors.\*

	Carter	Cogut	Deaton	Ghasemi	Ho	McGlynn	Monser	Paull
 Accounting/Financial Reporting	●	●			●		●	●
 Corporate Governance	●	●	●	●		●	●	●
 Diverse Director	●			●	●	●		
 Electronics Industry	●		●	●	●	●	●	
 Executive Leadership	●		●	●	●	●	●	●
 Finance and Capital Management	●		●	●	●			●
 Government Experience			●	●	●	●	●	
 Industry/Operations	●		●	●			●	●
 Information Technology	●		●		●			
 International Experience	●	●	●	●	●	●	●	●
 Investor Relations	●		●	●			●	●
 Legal		●						
 Logistics Experience	●		●				●	●
 Mergers & Acquisitions	●	●	●	●		●	●	●
 Technology	●		●		●	●	●	
 Oil and Gas Experience	●		●	●			●	

\* The absence of a mark does not necessarily indicate that the director does not possess that qualification or skill.



## Shareholder Engagement

The Board believes that fostering long-term and institution-wide relationships with shareholders, listening to their concerns and maintaining their trust and goodwill is a prerequisite to good governance.

<p>Management conducts extensive engagements with key shareholders.</p>	<p>These engagements include discussions about governance, compensation and safety, as well as financial and operational matters, to ensure that management and the Board understand and address the issues that are important to our shareholders.</p>	<p>The Board oversees the discharge by management of shareholder communication and engagement and receives regular reports on shareholder comments and feedback and is open to dialogue on issues of interest to significant shareholders.</p>	<p>The Board also specifically seeks to understand any significant voting trends on the Company's executive officer compensation program and other governance matters.</p>
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## Sustainability

The Board of Directors has accountability for oversight of our environmental and safety performance, which it reviews at least quarterly. The Corporate Governance and Nominating Committee has responsibility for monitoring our response to important public policy issues, including sustainability, which is reviewed on a routine basis. Business ethics, climate change and talent management are key subjects related to sustainability that are discussed by the Board. The Board also reviews our progress against our 2020 Sustainability Goals that are related to growing our business through products that benefit people and the environment, conserving resources and reducing our environmental footprint, and caring for our employees, customers and communities. Further, the Management Development and Compensation Committee has structured our compensation program to balance financial results with other Company values such as sustainability, safety, diversity and ethical conduct. We also have engaged with our shareholders on sustainability matters.

For information about how we manage sustainability, including our 2020 Sustainability Goals, and to access our 2018 Sustainability Report, please visit the sustainability page of our website.



### 2018 Corporate Sustainability Report\*

<http://www.airproducts.com/company/Sustainability.aspx>

\* The information on the sustainability webpage is not incorporated by reference into, and does not form part of, this proxy statement.



## PROPOSAL

2

Conduct an advisory vote on executive officer compensation.



The Board recommends a vote “FOR” this item.

Page 17

As described in the Compensation Discussion and Analysis, our executive officer compensation program has been designed to support our long-term business strategies and drive creation of shareholder value. It is aligned with the competitive market for talent, sensitive to Company performance and oriented to long-term incentives to maintain and improve the Company’s long-term profitability. We believe the program delivers reasonable pay which is strongly linked to Company performance.

## Fiscal 2018 Compensation Highlights











- Median Pay Program.** The executive officer compensation program is designed to deliver compensation that approximates the median for a carefully selected peer group and that exceeds the median when performance exceeds expectations. In Fiscal 2018, the Management Development and Compensation Committee determined that it was appropriate to increase the base compensation of our Chief Executive Officer (“CEO”) to keep Mr. Ghasemi competitive with the market due to his excellent performance over his first three years as CEO. Previously, base salary was positioned at median. As a result of this base salary increase, our CEO’s compensation was positioned at the 75th percentile across all pay elements.
- Shareholder Focused Performance Metrics.** Fiscal 2018 executive officer incentive compensation performance metrics support the Company’s priorities for creation of shareholder value.

### Say on Pay Support

At the January 2018 Annual Meeting of Shareholders, our shareholders supported the Company’s executive officer compensation program by a vote of approximately **96.5%** of the votes cast.

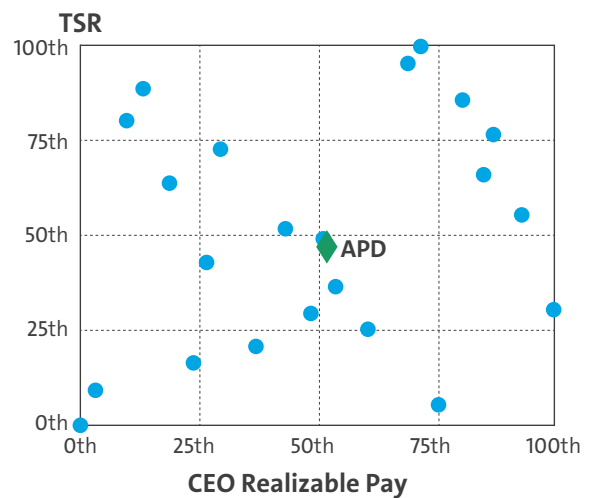
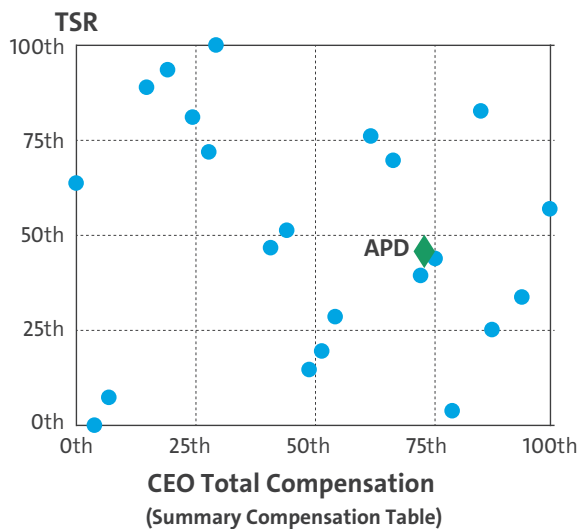
## Proxy Statement Highlights

Below is a summary of the components of direct compensation for fiscal 2018 delivered to our CEO and our other named executive officers.

	Type	CEO Target	Other Named Executive Officer Target	Key Terms
Short-Term	Base Salary	 11%	 25%	<ul style="list-style-type: none"> <li>Target at Market Median with adjustment based on level of responsibility, experience, and individual performance</li> </ul>
	Annual Incentive	 17%	 21%	<ul style="list-style-type: none"> <li>Target payout references Market Median</li> <li>Actual payout driven by adjusted EPS</li> <li>10% Growth required for target payout</li> </ul>
Long-Term	Long-Term Incentives	 72%	 54%	<ul style="list-style-type: none"> <li>Target value based on Market Median for long-term incentives</li> </ul>
	Performance Shares	 60%	 60%	<ul style="list-style-type: none"> <li>Actual payout based on relative TSR over three-year performance period</li> <li>50<sup>th</sup> percentile required for target payout</li> </ul>
	Restricted Stock Units	 40%	 40%	<ul style="list-style-type: none"> <li>Actual value determined by shareholder returns during vesting period</li> <li>Vest over four-year period</li> </ul>

## Pay and Performance Alignment

Below is the Equilar Inc. Pay for Performance Profile for 2015-2017 reported periods comparing Air Products' CEO compensation and total shareholder return ("TSR") to that of the members of the S&P 500 Basic Materials Sector for the past three years (reflects TSR for calendar years 2015-2017 and Summary Compensation Table total compensation for CEOs and CEO Conference Board Realizable Pay for fiscal years ending with or within calendar years 2015-2017).



## Compensation Governance Best Practices

The Management Development and Compensation Committee recognizes that shareholders want assurance that the processes for determining and paying executive officer compensation reflect thoughtful stewardship of the Company's resources. The Committee has adopted the following practices, among others, to demonstrate its commitment to this principle:

### COMPENSATION GOVERNANCE HIGHLIGHTS

- Independent directors make final compensation decisions pertaining to executive officers.
- The Committee is advised by an independent compensation consultant.
- Executive sessions are held at all Committee meetings.
- Compensation is targeted at median for similar industrial companies.
- Stringent stock ownership guidelines.
- Prohibition on hedging or pledging Company stock.
- Consistent administration of performance goals and formulas.
- Annual review of dilution and burn rate relative to peers.
- Double-trigger change in control arrangements.
- Clawback Policy adopted to combat executive officer misconduct and reclaim certain awards and incentives.

### PROPOSAL

# 3

Ratify the appointment of Deloitte & Touche LLP as the Company's independent registered public accounting firm for the fiscal year ending September 30, 2019.



The Board recommends a vote **"FOR"** this item.

Page 51

**The Audit and Finance Committee selected Deloitte & Touche LLP ("Deloitte") as our independent registered public accounting firm for fiscal 2019 following a competitive selection process and careful consideration of each participating firm's demonstrated qualifications. The Board believes that the engagement of Deloitte as our independent registered public accounting firm for fiscal 2019 is in the best interests of shareholders and is submitting the appointment of Deloitte to our shareholders for ratification as a matter of good corporate governance.**

In 2018, the Audit and Finance Committee of the Board of Directors conducted a competitive process to select the Company's independent registered public accounting firm for the Company's 2019 fiscal year. Following review and evaluation of proposals from the firms participating in that process, the Audit and Finance Committee engaged Deloitte. Our prior independent registered public accounting firm, KPMG LLP ("KPMG"), audited the financial statements included in our Annual Report on Form 10-K for the year ended September 30, 2018. This proposal requests that our shareholders ratify the Audit and Finance Committee's appointment of Deloitte as our independent registered public accounting firm for the fiscal year ending September 30, 2019.

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## Proxy Statement

We have provided you this Notice of Annual Meeting and proxy statement because the Board of Directors (the “Board”) of Air Products and Chemicals, Inc. (the “Company” or “Air Products”) is soliciting your proxy to vote at the Company’s Annual Meeting of Shareholders on January 24, 2019 (the “Annual Meeting”). This proxy statement contains information about the items to be voted on at the Annual Meeting and information about the Company. Instructions on how to access this proxy statement and our 2018 Annual Report to Shareholders on the Internet or paper copies of the proxy statement and Annual Report are first being sent to shareholders on or about December 12, 2018.

# Corporate Governance at Air Products

PROPOSAL

1

## Election of Directors

The Board currently has eight directors. The Board has nominated the eight incumbent directors for election to the Board for the terms expiring at the 2020 Annual Meeting following the election and qualification of their successors: Susan K. Carter, Charles I. Cogut, Chadwick C. Deaton, Seifollah (“Seifi”) Ghasemi, David H. Y. Ho, Margaret G. McGlynn, Edward L. Monser and Matthew H. Paull. Biographical information on these nominees and a description of their qualifications to serve as directors appears beginning on page 3. Each nominee elected as a director is expected to continue in office until his or her term expires or until his or her earlier retirement, resignation, removal or death.

Each of the nominees has consented to be named in this proxy statement and has agreed to serve if elected. If a nominee is unavailable for election at the time of the Annual Meeting, the Company representatives named on the proxy card will vote for another nominee proposed by the Board or, as an alternative, the Board may reduce the number of directors on the Board.



The Board recommends a vote “FOR” the election of Ms. Carter, Mr. Cogut, Mr. Deaton, Mr. Ghasemi, Mr. Ho, Ms. McGlynn, Mr. Monser and Mr. Paull.

**The individuals nominated for election to the Board are all current directors and possess a broad range of qualifications and skills that facilitate strong oversight of Air Products’ management and strategy. Our directors have diverse backgrounds and experiences and have demonstrated a commitment to strong corporate governance, shareholder engagement and sustainability.**

## The Board of Directors

### Selection of Directors

The Board has established the following minimum qualifications for all non-management directors:

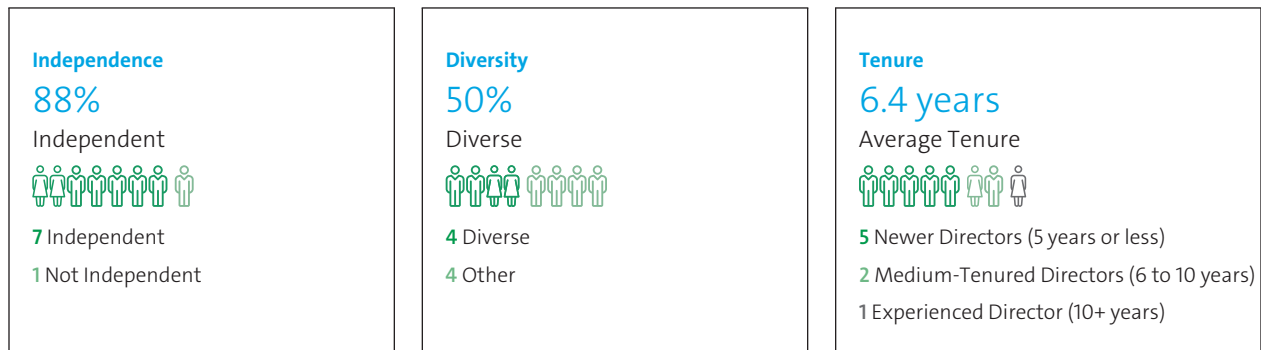
- |                       |  |   |
|-----------------------|--|---|
| ✓ Business experience | ✓ Integrity  | ✓ Absence of any potential conflicts with the Company’s interests |
| ✓ Judgment            | ✓ Ability to commit sufficient time and attention to the activities of the Board | ✓ An ability to represent the interests of all shareholders.      |
| ✓ Independence        |  |   |

While the Board has not adopted a formal policy on diversity, the Corporate Governance Guidelines (the “Guidelines”) provide that, as a whole, the Board should include individuals with a diverse range of experiences to give the Board depth and breadth in the mix of skills represented. The Board seeks to include an array of skills, perspectives and experience in its overall composition. This guideline is implemented by seeking to identify candidates that bring diverse skills sets, backgrounds and experiences, including ethnic, gender and geographic diversity, to the Board when director candidates are needed.

## Board Composition

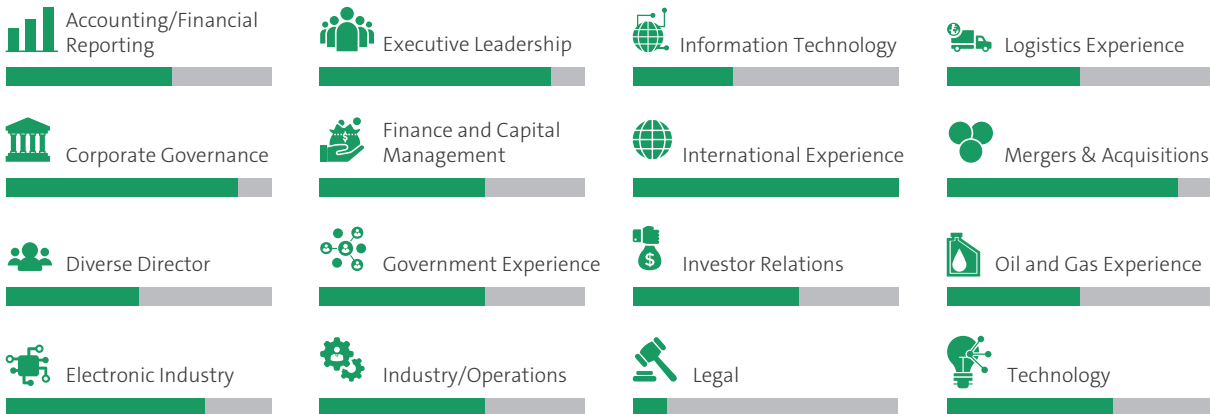
The Board is composed of a diverse group of leaders in their respective fields. Our current directors have leadership experience at major domestic and international companies with operations inside and outside the United States and experience on other companies' boards, which provides an understanding of different business processes, challenges and strategies. They have substantial experience in key aspects of our operations, finance and capital management and government relations, as well as in the market sectors we serve, including the energy, electronics and chemicals industries. Our directors also possess extensive experience in functional areas that are important to the execution of their oversight responsibilities, including corporate governance, accounting and financial reporting, information technology, mergers and acquisitions, investor relations and legal affairs. We believe all of our directors have personal traits such as candor, integrity, commitment and collegiality that are essential to an effective board of directors.

### BOARD SNAPSHOT



### BOARD QUALIFICATIONS AND SKILLS

The Board believes that it is desirable that the following experience, qualifications and skills be possessed by one or more of Air Products' Board members because of their particular relevance to the Company's business and strategy:



## Director Biographies

Information follows about the age and business experience of the director nominees and the particular experience, qualifications, attributes and skills that led the Board to conclude that each director should serve as a director. All of the nominees are currently directors.



**Susan K. Carter** Independent  
Senior Vice President and Chief Financial Officer of Ingersoll-Rand Public Limited Company

Age **60**  
Director Since **2011**

#### Committees

- Audit and Finance
- Management Development and Compensation

#### Background

Susan K. Carter is Senior Vice President and Chief Financial Officer of Ingersoll-Rand Public Limited Company, a diversified industrial company. She joined Ingersoll-Rand in September 2013. Prior to joining Ingersoll-Rand, Ms. Carter served as Executive Vice President and Chief Financial Officer of KBR, Inc. from 2009 to 2013, as Executive Vice President and Chief Financial Officer of Lennox International Inc. from 2004 to 2009 and as Vice President and Chief Accounting Officer of Cummins, Inc. from 2002 to 2004. She also has held senior financial and accounting roles at Honeywell International Inc., DeKalb Corporation and Crane Co. Ms. Carter received a Bachelor's degree in Accounting from Indiana University and received a Master's degree in Business Administration from Northern Illinois University. She is a Certified Public Accountant.

#### Qualifications

Ms. Carter has significant experience in financial reporting, information technology, accounting, finance and capital management, investor relations and international operations due to her experience as chief financial officer for a series of global publicly held corporations. Her background provides the Board with broad expertise in international financial and operational issues, as well as significant understanding of financial reporting issues.



**Charles I. Cogut** Independent  
Retired Partner, Simpson Thacher & Bartlett LLP

Age **71**  
Director Since **2015**

#### Committees

- Audit and Finance
- Corporate Governance and Nominating

#### Background

Charles "Casey" Cogut is a retired partner of Simpson Thacher & Bartlett LLP ("STB"). Mr. Cogut joined the New York-based law firm in 1973 and served as partner in STB from 1980 to 2012 and as a Senior Mergers and Acquisitions Counsel at STB from 2013 to 2016. For many years he was a leading member of STB's merger and acquisitions and private equity practices. He specialized in domestic, international and cross-border mergers and acquisitions, the representation of special committees of boards of directors and buyouts and other transactions involving private equity firms. In addition, he regularly advised boards of directors with respect to corporate governance matters and fiduciary responsibilities. From 1990 to 1993, he served as senior resident partner in the firm's London office. Mr. Cogut received his J.D. in 1973 from the University of Pennsylvania Law School after graduating summa cum laude from Lehigh University in 1969. He is a member of the Board of Overseers of the University of Pennsylvania Law School and Co-Chair of the Board of Advisors of the University's Institute for Law and Economics. He also is a director of The Williams Companies, Inc. and a Vice Chair of the Board of Trustees and a member of the Executive Committee of Cold Spring Harbor Laboratory. He was formerly a director of Patheon N.V.

#### Qualifications

Mr. Cogut brings to the Board expertise in governance and fiduciary responsibilities of directors. He also has extensive experience in multi-jurisdictional mergers and acquisitions and other complex transactions. He has been recognized as one of the leading corporate lawyers in the United States.





**Chadwick C. Deaton** Independent  
Retired Chairman and Chief Executive Officer of Baker Hughes Inc.

Age **66**  
Director Since **2010**

**Committees**

- Corporate Governance and Nominating (Chair)
- Executive
- Management Development and Compensation

**Background**

Chadwick “Chad” Deaton is the retired Chairman of Baker Hughes, Inc., an oilfield services and products provider with operations in over 90 countries. He joined Baker Hughes in 2004 and served as Chairman and Chief Executive Officer through 2011. He became Executive Chairman in January 2012 and retired from that position in April 2013. Previously, Mr. Deaton was President and Chief Executive Officer of Hanover Compressor Company (now Exterran Holdings, Inc.) and Senior Advisor and Executive Vice President of Schlumberger Oilfield Services. Mr. Deaton is a director of CARBO Ceramics, Inc., Marathon Oil Corporation and Transocean Ltd. He is also a former director of Hanover Compression Company and Baker Hughes. He is a director of Houston Achievement Place and a member of the Society of Petroleum Engineers’ and the Governor of Wyoming’s Engineering Task Force for the University of Wyoming. He also serves as a director for the University of Wyoming Foundation. Mr. Deaton earned a Bachelor’s degree in Geology from the University of Wyoming.

**Qualifications**

As a former chairman and chief executive officer of a global publicly held corporation, Mr. Deaton brings to the Board international business experience and executive leadership experience in operations, technology, talent management and governance. In addition, his 30-year career in petrochemicals and energy businesses provides him with expertise in key customer segments for the Company.



**Seifollah (“Seifi”) Ghasemi**  
Chairman, President and Chief Executive Officer of the Company

Age **74**  
Director Since **2013**

**Committees**

- Executive (Chair)

**Background**

Prior to joining Air Products, from 2001 to 2014, Mr. Ghasemi served as Chairman and Chief Executive Officer of Rockwood Holdings, Inc., a global leader in inorganic specialty chemicals and advanced materials that was acquired by Albemarle Corporation in January 2015. From 1997 to 2001, he held leadership roles at GKN, a global industrial company, including positions as director of the Main Board of GKN, plc and Chairman and Chief Executive Officer of GKN Sinter Metals, Inc. and Hoeganes Corporation. Earlier in his career, Mr. Ghasemi spent nearly 20 years with The BOC Group (the industrial gas company which is now part of Linde AG) in positions including director of the Main Board of BOC Group, plc, president of BOC Gases Americas and Chairman and Chief Executive Officer of BOC Process Plants, Ltd. and Cryostar. He is a former director of Rockwood Holdings, Inc. and EnerSys. Mr. Ghasemi also serves as non-executive chairman of Versum Materials, Inc. Mr. Ghasemi earned his undergraduate degree from Abadan Institute of Technology and holds a Master’s degree in Mechanical Engineering from Stanford University. Mr. Ghasemi also was awarded an honorary Doctor of Science degree from Lafayette College.

**Qualifications**

Mr. Ghasemi brings to the Board strong leadership and extensive management and operating experience, including deep experience in the industrial gases and specialty chemicals industries, and a solid understanding of key end markets for the Company. His prior executive leadership of an international chemical company also provides substantial experience in governance and portfolio management, strategic planning, talent management and international operations. He provides the Board with candid insights into the Company’s industry, operations, management team and strategic strengths and weaknesses.



**David H. Y. Ho** Independent  
Chairman and Founder of Kiina Investment Ltd.

Age **59**  
Director Since **2013**

**Committees**

- Audit and Finance
- Management Development and Compensation

**Background**

David H. Y. Ho is Chairman and Founder of Kiina Investment Ltd., a venture capital firm that invests in start-up companies in the technology, media and telecommunications industries. Mr. Ho previously served as Chairman of Greater China for Nokia Siemens Networks, President of Greater China for Nokia Corporation and Senior Vice President of the Nokia Networks Business Group. He has also held senior leadership roles with Nortel Networks and Motorola in China and Canada. Mr. Ho currently serves in the United States as a member of the board of nVent Electric plc and Qorvo, Inc. and in China as a member of the board of two state-owned enterprises: China COSCO Shipping Corporation and China Mobile Communications Corporation. Mr. Ho served as a director of Pentair plc prior to the separation of its electrical business now held by nVent Electric plc, a director of Triquent Semiconductor, Inc. prior to its merger with R. F. Micro Devices to form Qorvo, Inc. and as a director of China Ocean Shipping Company prior to its merger with China Shipping Group. Mr. Ho also previously served as a director of Dong Fang Electric Corporation and Owens Illinois, Inc. He holds a Bachelor's degree in Engineering and a Master's degree in Management Sciences from the University of Waterloo in Canada.

**Qualifications**

Mr. Ho has extensive experience establishing and building businesses in China and in international joint venture operations, government relations and Asian operations and marketing. His background brings significant value to the Company as we execute on our Asian strategy. He also has executive leadership experience in the electronics and technology industries, which are key customer markets for the Company.



**Margaret G. McGlynn** Independent  
Retired President, Merck & Co., Inc. Global Vaccine and Infectious Disease Division, and retired President and Chief Executive Officer, International AIDS Vaccine Initiative

Age **59**  
Director Since **2005**

**Committees**

- Corporate Governance and Nominating
- Management Development and Compensation

**Background**

Margaret G. McGlynn is the retired President of the Global Vaccine and Infectious Disease Division of Merck & Co., a global pharmaceutical company, where she worked for 26 years until her retirement in 2009. Following retirement, she served as President and Chief Executive Officer of International AIDS Vaccine Initiative, a global not-for-profit, public-private partnership working to accelerate the development of vaccines to prevent HIV infection and AIDS. She joined its board in 2010 and served as President and Chief Executive Officer from 2011 until her retirement in 2015. As President, Global Vaccine and Infectious Disease Division of Merck & Co., Inc., from 2006 until her retirement in 2009, she was responsible for a portfolio of more than \$7 billion in global sales. She led the introduction of several new vaccine products and anti-infective therapies, expanded Merck's vaccine and infectious disease business globally and launched several initiatives to provide access to its vaccines and HIV therapies in the developing world. She also led several other divisions, including U.S. Human Health and Hospital and Specialty Products and Global Marketing. Ms. McGlynn is a director of Amicus Therapeutics, Inc. and Vertex Pharmaceuticals, Inc. She formerly served as a director of Quidel Diagnostics. She earned a Bachelor's degree in Pharmacy and a Master's of Business Administration in Marketing from State University of New York at Buffalo.

**Qualifications**

From her management of a global business and service as chief executive officer of a global organization, Ms. McGlynn brings extensive experience in government relations and public policy, international marketing, mergers and acquisitions and talent management. She has expertise in productivity and a deep understanding of the healthcare business, an important customer base for the Company. Her service on other boards also provides financial and governance experience.



**Edward L. Monser** Independent  
Retired President and Chief Operating Officer of Emerson Electric Company

Age **68**  
Director Since **2013**

**Committees**

- Audit and Finance
- Executive
- Management Development and Compensation (Chair)

**Background**

Mr. Monser recently retired as the President of Emerson Electric Co., a global industrial controls products company. At the time of his retirement, Mr. Monser had more than 30 years of experience in senior operational positions at Emerson and played key roles in globalizing the company, having held increasingly senior positions at the company, including Chief Operating Officer (2001 to 2015), President of its Rosemount Inc. subsidiary (1996 to 2001) and various operations, new product development, engineering and technology positions. Mr. Monser currently serves as a director of Vertiv, a private company that provides equipment and services for datacenters, and has been appointed as a director of Canadian Pacific Railway Ltd., effective December 17, 2018. He is Vice Chairman of the U.S.-India Strategic Partnership Forum, a member of the Economic Development Board for China's Guangdong Province and a former director and Vice Chairman of the U.S.-China Business Council. He holds a Bachelor's degree in Electrical Engineering from the Illinois Institute of Technology and a Bachelor's degree in Education from Eastern Michigan University.

**Qualifications**

As former president and chief operating officer of a premier global industrial organization, Mr. Monser provides the Board with a solid understanding of industrial operations, supply chain optimization and continuous improvement, extensive experience in international business operations, particularly in emerging markets, and a demonstrated capability in strategic planning and organizational development.



**Matthew H. Paull** Independent  
Retired Senior Executive Vice President and Chief Financial Officer of McDonald's Corporation

Age **67**  
Director Since **2013**

**Committees**

- Audit and Finance (Chair)
- Corporate Governance and Nominating
- Executive

**Background**

Mr. Paull was Senior Executive Vice President and Chief Financial Officer of McDonald's Corporation from 2001 until he retired from that position in 2008. Prior to joining McDonald's in 1993, he was a partner at Ernst & Young where he managed a variety of financial practices during his 18-year career and consulted with many leading multinational corporations. Mr. Paull currently serves as a director of Canadian Pacific Railway Ltd. and Chipotle Mexican Grill Inc. He was formerly a director of KapStone Paper and Packaging Corporation and WMS Industries Inc. and the lead director of Best Buy Co. He is a member of the Advisory Board of Pershing Square Capital Management, L.P. He also served as an advisory council member for the Federal Reserve Bank of Chicago. He holds a Master's degree in Accounting and a Bachelor's degree from the University of Illinois. He is a Certified Public Accountant.

**Qualifications**

Mr. Paull brings to the Board significant financial expertise with a deep understanding of financial markets, corporate finance, accounting and controls and investor relations. As a former chief financial officer of a multinational corporation, he also has extensive experience in international operations and marketing.

## Director Independence

The Board has affirmatively determined that all of the Company's directors, except Mr. Ghasemi, qualify as independent under the New York Stock Exchange ("NYSE") corporate governance listing standards. In determining independence, the Board determines whether directors have a material relationship with the Company that would interfere with the exercise of independent judgment in carrying out the responsibilities of directors. When assessing materiality, the Board considers all relevant facts and circumstances, including transactions between the Company and the director, family members of directors or organizations with which the director is affiliated. The Board further considers the frequency of and dollar amounts associated with any of these transactions and whether the transactions were in the ordinary course of business and were consummated on terms and conditions similar to those with unrelated parties.

In its determination, the Board considers the specific tests for independence included in the NYSE listing standards. In addition, the Guidelines provide standards to assist in determining each director's independence, which meet or exceed the NYSE independence requirements. The Guidelines provide that the following categories of relationships are immaterial for purposes of making an independence determination:

- sales or purchases of goods or services between the Company and a director's employer or an employer of a director's family member, which occurred more than three years prior to the independence determination or involved less than 1% of such employer's annual consolidated gross revenues, took place on the same terms and conditions offered to third parties or on terms and conditions established by competitive bid and did not affect the director's or family member's compensation;
- charitable contributions by the Company to an organization in which the director or his or her immediate family member serves as an executive officer, director or trustee that occurred more than three years prior to the independence determination, were made pursuant to the Company's matching contributions program or were less than the greater of \$1 million or 2% of the organization's gross revenues;
- membership of a director in the same professional association, social, fraternal or religious organization or club as an executive officer of the Company;
- a director's past matriculation at the same educational institution as an executive officer of the Company;
- a director's service on the board of directors of another public company on which an executive officer of the Company also serves as a director, except for prohibited compensation committee interlocks; and
- a director's service as a director, trustee or executive officer of a charitable or educational organization where an executive officer of the Company also serves as a director or trustee.

In accordance with NYSE listing standards, in affirmatively determining the independence of any director who will serve on the Management Development and Compensation Committee, the Board also specifically considers factors relevant to determining whether a director has a relationship to the Company, which is material to that director's ability to be independent from management in making judgments about the Company's executive compensation, including sources of the director's compensation and relationships of the director to the Company or senior management.

In addition, the Guidelines provide that no director may serve on the Audit and Finance Committee or Management Development and Compensation Committee of the Board if he or she has received within the past or preceding fiscal year any compensatory fee from the Company other than for Board or committee service; and no director may serve on the Management Development and Compensation Committee of the Board unless the director qualifies as an "outside director" under U.S. tax laws pertaining to deductibility of executive compensation.

On an annual basis, each member of the Board is required to complete a questionnaire designed in part to provide information to assist the Board in determining whether the director is independent under NYSE rules and the Guidelines. In addition, each director or potential director has an affirmative duty to disclose to the Corporate Governance and Nominating Committee relationships between and among that director (or an immediate family member), the Company and/or the executive officers of the Company.

The Corporate Governance and Nominating Committee reviews director relationships and transactions for compliance with the standards described above and makes a recommendation to the Board, which makes the independence determination. For those directors identified as independent, the Company and the Board are aware of no relationships or transactions with the Company or management, which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Routine purchases and sales of products involving Ms. Carter's and Mr. Monser's employers (amounting to less than 1% of the Company's and each such employer's consolidated revenues) and Mr. Paull's service on the advisory board of a shareholder were determined not to interfere with their independence.

## Board Refreshment

### Ongoing Assessment of Board Composition

The qualities and skills necessary for a specific director nominee are governed by the needs of the Company at the time the Corporate Governance and Nominating Committee determines to add a director to the Board. The specific requirements of the Company are determined by the Committee and are based on, among other things, the Company's current business, market, geographic and regulatory environments; the mix of perspectives, experience and competencies currently represented by the other Board members; and the CEO's views as to areas in which management desires additional advice and counsel.



### Identification of Candidates

When the need to recruit a non-management director arises, the Corporate Governance and Nominating Committee's standard process is to consult the other directors, the CEO and sometimes a third-party recruiting firm to identify potential candidates. Once a candidate is identified, the candidate screening process typically is conducted initially through an interview by one or more members of the Committee and the CEO.



### Candidate Selection

After the initial interviews, the candidate meets with the full Corporate Governance and Nominating Committee for formal consideration and recommendation to the Board. Prior to nomination or election, an investigation is conducted to verify the candidate's reputation and background, the candidate's independence as measured by the Board's independence standards and other factors the Committee deems appropriate at the time.

### Board Tenure Policy

To enable Board succession planning and refreshment, the Board has adopted a policy that a non-executive director may not continue to serve on the Board after the Annual Meeting following the earlier of his or her completion of 15 full years of service on the Board or attainment of age 75. The Board retains the flexibility to waive this policy, including in response to events or recruiting realities. At the time Mr. Ghasemi was recruited to become the Company's Chairman and CEO in 2014, the Board determined it would waive the age limit for him to enable him to remain a director during his employment.

## Shareholder Nominations

The Corporate Governance and Nominating Committee has adopted a policy regarding its consideration of director candidates recommended by shareholders for nomination by the Board at an Annual Meeting and a procedure for submission of such candidates. The policy provides that candidates recommended by shareholders will be considered by the Committee. Submissions of candidates must be made in writing and must be received not later than 120 days prior to the anniversary date of the proxy statement for the prior Annual Meeting. The submission must also provide certain information concerning the candidate and the recommending shareholder(s), a statement explaining why the candidate has the qualifications required and consent of the candidate to be interviewed by the Corporate Governance and Nominating Committee and to serve if elected. A copy of the policy and procedure is available upon request from the Corporate Secretary's Office. Candidates recommended by shareholders in accordance with these procedures will be screened and evaluated by the Corporate Governance and Nominating Committee in the same manner as other candidates.

# Board Responsibilities

## Overview

Our business is managed by our employees under the direction and oversight of the Board. Among other responsibilities discussed below, the Board reviews, monitors and, where appropriate, approves fundamental financial and business strategies and major corporate actions. The Board of Directors is elected by shareholders to provide advice and counsel to and oversee management to ensure that the interests of the stockholders and other corporate constituents are being served with a view toward maximizing our long-term value.

Directors exercise their oversight responsibilities through discussions with management, review of materials management provides to them, visits to our offices and facilities and their participation in Board and Board committee meetings.

## Risk Oversight

The CEO and other members of senior management are responsible for assessing and managing the Company's risk exposure, and the Board and its committees provide oversight in connection with those efforts.

### The Board of Directors

Responsibility for risk oversight rests with the Board. The Board formally reviews the Company's risk management processes and policies periodically, including identification of key risks and associated monitoring, control and mitigation activities, but the Board primarily exercises its risk oversight responsibility through meetings, discussions and review of management reports and proposals. Consideration of risk is inherent in the Board's consideration of the Company's long-term strategies and in the transactions and other matters presented to the Board, including large capital expenditures, acquisitions and divestitures, cybersecurity and safety and environment updates. Committees help the Board carry out this responsibility by focusing on specific key areas of risk inherent in our business.

All Board members are invited to attend most committee meetings, and Board members who do not attend committee meetings receive information about committee activities and deliberations.

### Audit and Finance Committee

The Audit and Finance Committee oversees risks associated with financial and accounting matters, including compliance with legal and regulatory requirements, financial instruments, financial transactions, financial policies and strategies, pension funding and capital structure and the Company's financial reporting and internal control systems. The Audit and Finance Committee also has oversight of the Company's risk assessment and management process and associated monitoring, control and mitigation activities.

### Corporate Governance and Nominating Committee

The Corporate Governance and Nominating Committee oversees risks associated with corporate governance, including Board structure, director succession planning and allocation of authority between management and the Board.

### Management Development and Compensation Committee

The Management Development and Compensation Committee helps ensure that the Company's executive compensation policies and practices support the retention and development of executive talent with the experience required to manage risks inherent to the business and do not encourage or reward excessive risk-taking by our executives.

### Management

Management is responsible for assessing and managing the Company's various risk exposures on a day-to-day basis, including the creation of appropriate risk management programs and policies.



## Management Succession Planning

The Management Development and Compensation Committee of the Board, the CEO and the Human Resources organization maintain an ongoing focus on executive development and succession planning to prepare the Company for future success. The Board reviews organization and succession plans with our CEO at least annually. In addition, the Company has an emergency succession procedure for the CEO that is reviewed annually by the Board.



## Shareholder Communications

Shareholders and other interested parties may communicate with the independent directors by sending a written communication in care of the Corporate Secretary to:



**Air Products and Chemicals, Inc.**

7201 Hamilton Boulevard  
Allentown, PA 18195-1501

The Board has adopted a written procedure for collecting, organizing and forwarding direct communications from shareholders and other interested parties to the non-management directors. A copy of the procedure is available upon request from the Corporate Secretary's Office.

## Board Structure

### Board Leadership Structure

The Board does not have a policy on whether the roles of Chairman of the Board and CEO should be separate or whether the Chairman of the Board should be independent. The Board determines which structure is in the best interests of the Company at any given time.

At present Mr. Ghasemi serves as both CEO and Chairman of the Board, and the Board also has an independent Lead Director. The Board decided to combine the CEO and Chairman roles because it has a high level of confidence in Mr. Ghasemi's leadership and willingness to work closely and transparently with the independent directors. The Board believes the Company is best served at this time by unified leadership of operations and oversight of the Company, which ensures that the Board and management act with common purpose. Finally, the Board is satisfied that the independent directors have ample opportunities to execute their responsibilities independently through numerous executive sessions held throughout the year at both the Board and committee levels, substantial interactions with members of the management team other than the CEO and the leadership of the Lead Director and the committee chairs.



## Lead Director

The Lead Director is elected by majority vote of the Board upon the nomination of the Corporate Governance and Nominating Committee.

Mr. Deaton is currently the Lead Director.

The Guidelines provide that the Lead Director’s responsibilities include:

- presiding at executive sessions of the Board and any other time the Chairman is not present and communicating feedback to the CEO;
- determining the agenda for executive sessions of non-management directors; and
- principal authority to convene a meeting of independent directors.

## Executive Sessions

The independent directors regularly meet without the CEO or other members of management present in executive sessions that are scheduled at each Board meeting. In addition, the CEO performance review is conducted in executive session, and the Board committees regularly meet in executive session. Board executive sessions are led by the Lead Director, except the CEO performance review is led by the Chair of the Management Development and Compensation Committee.

## Standing Committees of the Board

The Board has three standing committees, which operate under written charters approved by the Board: Audit and Finance; Corporate Governance and Nominating; and Management Development and Compensation. In accordance with NYSE listing standards, none of the directors who serve on the Audit and Finance, Corporate Governance and Nominating or Management Development and Compensation Committees have ever been employed by the Company, and the Board has determined in its business judgment that all of them are “independent” from the Company and its management in accordance with the guidelines described above in “Director Independence” as well as with additional NYSE listing criteria that are applicable to members of the Audit and Finance and Management Development and Compensation Committees. The Company’s Bylaws also provide for an Executive Committee.

The charters of all the committees can be viewed on the Company website at [www.airproducts.com/Company/governance/board-of-directors/committee-descriptions-and-charters.aspx](http://www.airproducts.com/Company/governance/board-of-directors/committee-descriptions-and-charters.aspx) and are available in print to any shareholder upon request.

## Audit and Finance Committee

### Members

- **Matthew H. Paull (Chair)**
- Susan K. Carter
- Charles I. Cogut
- David H. Y. Ho
- Edward L. Monser

The Board has determined that all of the Audit and Finance Committee members are “financially literate” and that Ms. Carter and Mr. Paull qualify as “audit committee financial experts” as defined by U.S. Securities and Exchange Commission (“SEC”) regulations and NYSE listing standards.

FY2018 Meetings: **8**  
Committee Report: [Page 53](#)

The Audit and Finance Committee operates under a written charter.

### Primary Responsibilities

- The Committee is directly responsible for the appointment, compensation, retention and oversight of the independent registered public accounting firm retained to audit the Company’s financial statements.
- The Committee provides oversight of the Company’s external financial reporting process, systems and processes relating to the integrity of financial statements, internal audit process, programs for compliance with laws and regulations and the employee code of conduct, and processes for risk assessment and management.
- The Committee discusses with the Company’s internal auditor and independent registered public accountant the overall scope and plans for their respective audits. The Committee regularly meets with Internal Audit and the independent registered public accounting firm, with and without management present, to discuss the results of their audits, their evaluations of the Company’s internal controls, and the overall quality of the Company’s financial reporting.

## Corporate Governance and Nominating Committee

### Members

- **Chadwick C. Deaton (Chair)**
- Charles I. Cogut
- Margaret G. McGlynn
- Matthew H. Paull

FY2018 Meetings: **2**

The Corporate Governance and Nominating Committee operates under a written charter.

### Primary Responsibilities

- The Committee monitors and makes recommendations to the Board about corporate governance matters, including the Guidelines, codes of conduct, Board structure and operation, Board policies on director compensation and tenure, the meeting schedules of the Board and its committees, the charters and composition of the committees and the annual Board and committee performance assessment processes.
- The Committee has primary responsibility for identifying, recommending and recruiting nominees for election to the Board and recommending candidates for election as Lead Director.
- The Committee also reviews and monitors the Company’s crisis management procedures, government relations activities and response to significant public policy issues, including social responsibility matters.

## Management Development and Compensation Committee

### Members

- Edward L. Monser (Chair)
- Susan K. Carter
- Chadwick C. Deaton
- David H. Y. Ho
- Margaret G. McGlynn

FY2018 Meetings: 3

Committee Report: [Page 18](#)

The Management Development and Compensation Committee operates under a written charter.

### Primary Responsibilities

- The Committee establishes the executive officer compensation philosophy, design and strategy for the Company consistent with Company objectives and shareholder interests, determining CEO compensation and approving other executive officer compensation.
- The Committee approves performance objectives relevant to the compensation of the CEO, establishing the process for and leading the Board in evaluation of the performance of the Company's CEO and providing oversight of the CEO's evaluation of the performance of other executive officers.
- The Committee oversees CEO succession planning and the development and evaluation of potential candidates for other executive officer positions.
- The Committee oversees the Company's overall management compensation program, the design and administration of management incentive compensation plans, including equity programs, and the design and administration of the Company's retirement and welfare benefit plans.

The Committee's charter permits it to delegate all or a portion of the authority granted to it by the Board to one or more Committee members, senior executives or subcommittees to the extent consistent with applicable laws, regulations and listing standards. The Company's Delegation of Authority Policy reserves for the Board and the Committee all compensation and staffing decisions with respect to executive officers except as specifically delegated.

## Executive Committee

### Members

- Seifi Ghasemi (Chair)
- Chadwick C. Deaton
- Edward L. Monser
- Matthew H. Paull

FY2018 Meetings: 0

### Primary Responsibilities

The Executive Committee has the authority of the Board to act on most matters during intervals between Board meetings. It is usually convened to approve capital expenditures associated with a project in excess of the CEO's authority when a customer requires a commitment prior to the next Board meeting and a special meeting of the Board cannot be convened.

## Board Practices, Processes and Policies

### Board Meetings and Attendance

During fiscal 2018, there were nine meetings of the Board. No director attended less than 75% of the combined total of meetings of the Board and the committees on which he or she was serving. In accordance with the Guidelines, all directors are expected to attend the Annual Meeting unless they have an emergency or unavoidable schedule conflict. All directors attended the last Annual Meeting.

### Board Performance Evaluation

Each year the Board conducts an evaluation of its performance. The evaluation format is established by the Corporate Governance and Nominating Committee. In recent years, the format has been an unstructured discussion led by the Chair of the Corporate Governance and Nominating Committee covering topics approved by the Committee and provided to directors in advance of the evaluation. The Board committees also conduct annual self-evaluations using a similar format. Individual directors are evaluated by the Corporate Governance and Nominating Committee at the time of nomination for reelection. The Lead Director is evaluated following his first full year of service in that role. This evaluation is conducted by a member of the Corporate Governance and Nominating Committee after soliciting input from other directors.

### Corporate Governance Guidelines

The Board has adopted Corporate Governance Guidelines for the Company in order to establish and maintain practices to govern the Company in accordance with the interests of the shareholders. The Guidelines set forth the governance practices the Board follows, including with respect to the roles and functions of the Board, Board leadership, director independence and qualifications, nomination and election of directors, director responsibilities, access to management and independent advisors, director compensation, director orientation and education, chief executive officer performance assessment, management succession and assessment of Board and committee performance.

The Board regularly reviews corporate governance developments and modifies the Guidelines as warranted.

The Guidelines are available on the Company's website at: [www.airproducts.com/company/governance/board-of-directors/governance-guidelines.aspx](http://www.airproducts.com/company/governance/board-of-directors/governance-guidelines.aspx) and are available in print upon request. (Information contained on our website is not part of this proxy statement.)

### Code of Conduct

The Board has adopted its own Code of Conduct that is intended to affirm its commitment to the highest ethical standards, integrity and accountability among directors and focuses on areas of potential ethical risk and conflicts of interest especially relevant to directors. The Company also has a Code of Conduct for officers and employees. This Code of Conduct addresses such topics as conflicts of interest, confidentiality, protection and proper use of Company assets and compliance with laws and regulations.

Both Codes of Conduct can be found on the website at [www.airproducts.com/company/governance/board-of-directors/director-code-of-conduct.aspx](http://www.airproducts.com/company/governance/board-of-directors/director-code-of-conduct.aspx) and [www.airproducts.com/company/governance/commitment-ethical-business/employee-code-of-conduct.aspx](http://www.airproducts.com/company/governance/commitment-ethical-business/employee-code-of-conduct.aspx) and are available in print to any shareholder who requests them.

## Transactions with Related Persons

The Company did not engage in any reportable related person transactions in fiscal 2018.

The Board recognizes that transactions with related persons can present actual or potential conflicts of interest and wants to ensure that Company transactions are based solely on the best interests of the Company and its shareholders. Accordingly, the Board has delegated responsibility to the Audit and Finance Committee to review transactions between the Company and related persons. The Audit and Finance Committee has adopted a written policy providing procedures for review of related person transactions.

A related person transaction is a transaction between the Company and a director, executive officer or 5% or more shareholder, any of their respective immediate family members or a company or other entity in which any of these persons have a direct or indirect material interest. The policy specifically excludes certain types of transactions, which the Committee deems to be immaterial. Pursuant to the Audit and Finance Committee policy, related person transactions must be preapproved by the Committee or, in the event of an inadvertent failure to bring the transaction to the Committee for preapproval, ratified by the Committee. In deciding whether to approve or ratify a related person transaction, the Committee considers the benefits of the transaction to the Company, the impact on a director's independence if a director or a director's family member or affiliate is involved, the availability of comparable sources for products and services, the terms of the transaction and terms available to third parties for similar transactions. The Audit and Finance Committee Chair is authorized to approve related person transactions when it is impractical or undesirable to wait until the next Committee meeting for approval. Such Chair-approved transactions must be reported to the Committee at the next meeting.

## Compensation of Directors

In fiscal 2018, our directors received compensation as set forth in the chart below. There were no changes made to the compensation of non-employee directors in fiscal 2018.

Director Compensation Program	(\$)
Annual Deferred Stock Award (made immediately following Annual Meeting) <sup>(1)</sup>	150,000
Annual Cash Retainer	100,000
Lead Director Retainer	25,000
Audit and Finance Committee Chair Retainer	25,000
Management Development and Compensation Committee Chair Retainer	20,000
Corporate Governance and Nominating Committee Chair	15,000

<sup>(1)</sup> Directors elected to the Board after the Annual Meeting receive a prorated grant of deferred stock units based on the number of months remaining until the next annual meeting.

Our Corporate Governance and Nominating Committee periodically undertakes a review of non-employee director compensation. The most recent review was completed in fiscal 2017, when the Committee reviewed a competitive assessment of directors' compensation levels and practices among a peer group of chemical and industrial companies with similar capital structure, asset intensity and profitability to the Company, the S&P 500 and the S&P 500 Basic Materials Sector.

Directors may voluntarily defer all or a part of their cash retainers under the Deferred Compensation Program for Directors. At the election of each director, voluntarily deferred amounts may be credited to deferred stock units or to an account, which is credited with interest based on long-term corporate bond yields. Deferred stock units entitle the director to receive one share of Company stock upon payout, which generally occurs after the director's service on the Board is over. Deferred stock units earn "dividend equivalents" equal to the dividends that would have been paid on one share of stock for each unit owned by the director on dividend record dates. Deferred retainers (plus dividend equivalents

## Corporate Governance at Air Products

earned on the director's existing deferred stock units account during a quarter) are converted to deferred stock units based on the NYSE closing price of a share of Company stock on the third to last business day of the quarter.

Directors are reimbursed for expenses incurred in performing their duties as directors. The Company covers directors under its overall directors and officers liability insurance policies. Directors are also covered by the business travel accident policy maintained by the Company and are eligible to participate in the Company's charitable matching gift program. Under this program, for fiscal 2018 the Company matched donations of up to \$10,000 per year made by employees and directors to qualifying non-profit organizations.

To emphasize the importance of long-term alignment with shareholders, the Board has adopted stock ownership requirements for directors. Directors are expected to own shares or share equivalents with a value (based on the NYSE closing price) equal to five times the annual cash retainer by the end of the fifth fiscal year after joining the Board. Directors are expected to increase their holdings to reflect an adjustment in the annual cash retainer within a reasonable period of time following the adjustment. Once a director has met the requirement, if there is a subsequent decline in the Company's share price that causes the director's ownership level to fall below this guideline, the director is not expected to purchase additional shares to meet the guideline but is expected to refrain from selling or transferring shares until the guideline is again satisfied. All directors are currently in compliance with the stock ownership guidelines for directors.

### FISCAL 2018 DIRECTOR COMPENSATION

Name	Fees Earned or Paid in Cash <sup>(1)</sup> (\$)	Stock Awards <sup>(2)</sup> (\$)	All Other Compensation <sup>(3)</sup> (\$)	Total (\$)
Susan K. Carter	100,000	150,162	—	250,162
Charles I. Cogut	100,000	150,162	12,255	262,417
Chadwick C. Deaton	140,000	150,162	—	290,162
David H. Y. Ho	100,000	150,162	—	250,162
Margaret G. McGlynn	100,000	150,162	10,000	260,162
Edward L. Monser	120,000	150,162	10,000	280,162
Matthew H. Paull	125,000	150,162	13,741	288,903

<sup>(1)</sup> Certain directors voluntarily elected to defer some or all of their cash retainers. Any voluntary deferrals are included in this column. This column includes annual retainers, committee chair and lead director retainers.

<sup>(2)</sup> This column shows the grant date fair value of the annual deferred stock unit grant for fiscal 2018 calculated in accordance with FASB ASC Topic 718. Deferred stock units earned by directors are fully expensed on the Company's financial statements at the market value of a share of stock on the date of grant. The annual deferred stock unit grant is prorated for directors elected mid-year. All deferred stock units credited to directors are fully vested.

<sup>(3)</sup> Amounts in this column reflect charitable matching contributions under the Company's charitable matching gift program for Mr. Monser and Ms. McGlynn. For Mr. Cogut, the amount reflects a charitable matching contribution of \$10,000 and interest considered to be above-market interest credited on his Deferred Compensation Program balance. For Mr. Paull, the amount reflects a charitable matching contribution of \$8,900 and interest considered to be above-market interest credited on his Deferred Compensation Program balance. Interest is calculated for the Deferred Compensation Program using a Moody's A-rated Corporate Bond Rate, because this is comparable to the rate the Company pays its other creditors on long-term obligations. When this rate exceeds 120% of a rate set by the U.S. Internal Revenue Service for obligations of similar maturity, it is treated as above-market interest even though it is based on a market average for corporate bonds.

# Executive Compensation

PROPOSAL

2

## Advisory Vote on Executive Officer Compensation

The Board is committed to excellence in governance and recognizes the interest our shareholders have in the Company's executive compensation program. As a part of that commitment, and in accordance with SEC rules, our shareholders are asked to approve an advisory resolution on the compensation of our named executive officers, as disclosed in the Compensation Discussion and Analysis and accompanying Executive Compensation Tables and narrative. This proposal, commonly known as a "say on pay" proposal, gives you the opportunity to endorse or not endorse our fiscal 2018 executive compensation program by voting for or against the following resolution:

RESOLVED, that the compensation of the named executive officers as discussed and disclosed in the Compensation Discussion and Analysis and the executive compensation tables and accompanying narrative is approved.

Although the vote is non-binding, the Board and the Management Development and Compensation Committee will review the voting results. If there are a significant number of negative votes, we will seek to understand the concerns that influenced the vote and to address them in making future decisions about executive compensation programs. The Company intends to conduct an advisory vote on executive officer compensation annually. The next such vote will be conducted at our 2020 Annual Meeting.



The Board recommends a vote "FOR" this resolution.

**As described in the Compensation Discussion and Analysis, our executive officer compensation program has been designed to support our long-term business strategies and drive creation of shareholder value. It is aligned with the competitive market for talent, sensitive to Company performance and oriented to long-term incentives to maintain and improve the Company's long-term profitability. We believe the program delivers reasonable pay that is strongly linked to Company performance.**



# Report of the Management Development and Compensation Committee

The Management Development and Compensation Committee has reviewed and discussed with management the following Compensation Discussion and Analysis. Based on its review and discussions, the Committee recommended to the Board that the Compensation Discussion and Analysis be included in the proxy statement for the Company's 2019 Annual Meeting of Shareholders and incorporated by reference in the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2018.

## Management Development and Compensation Committee

Edward L. Monser, Chair  
Susan K. Carter  
Chadwick C. Deaton  
David H. Y. Ho  
Margaret G. McGlynn

## Compensation Discussion and Analysis

The Compensation Discussion and Analysis describes and analyzes our executive officer compensation program with emphasis on compensation actions taken during fiscal 2018. For fiscal 2018, the Company's named executive officers were:

- **Seifi Ghasemi**, Chairman, President and Chief Executive Officer;
- **M. Scott Crocco**, Executive Vice President and Chief Financial Officer ("CFO");
- **Sean D. Major**, Executive Vice President, General Counsel and Secretary;
- **Dr. Samir Serhan**, Executive Vice President; and
- **Corning F. Painter**, former Executive Vice President, Industrial Gases.

The Compensation Discussion and Analysis is organized into 6 sections:

SECTION	Page Number
1 Highlights of Fiscal 2018 Company Performance and Compensation Actions	19
2 Fiscal 2018 Executive Officer Compensation Program Overview	22
3 Fiscal 2018 Direct Compensation Components	24
4 Employee Benefits and Other Compensation	29
5 Executive Compensation Decision-Making Process	30
6 Key Compensation Practices and Policies	33

# 1 Highlights of Fiscal 2018 Company Performance and Compensation Actions

## Fiscal 2018 Performance and Strategic Highlights

### Financial Performance

#### EARNINGS PER SHARE



Increased 28%

over fiscal 2017.

#### NET INCOME FROM CONTINUING OPERATIONS



Increased 28%

over fiscal 2017.

#### ADJUSTED EARNINGS PER SHARE<sup>1</sup>



Increased 18% over fiscal 2017, representing the fourth consecutive year of double-digit growth.

#### ADJUSTED EBITDA<sup>1</sup>



Increased 11% over fiscal 2017.

### Safety Performance

The Company continued its improvement in safety performance, with 71% improvement in the employee lost time injury rate and 50% improvement in the employee recordable injury rate versus fiscal 2014 and even greater improvement in contractor injury rates.

Our goal is to be the safest, most diverse and most profitable industrial gas company in the world, providing excellent service to our customers.

In fiscal 2014, we established a five-point plan that, when implemented, successfully focused our efforts on our core industrial gas business, restructured the organization, changed the culture, controlled capital and costs and aligned our awards. Accordingly, in fiscal 2018 we evolved our five-point plan to guide our success over the coming years. Our new five-point plan focuses on the following objectives:

### Operational Performance

The Company brought major projects on-stream in China, Korea and the U.S. and announced four large gasification projects and the acquisition of gasification technology.

### Returns to Shareholders

The Company returned nearly \$900 million to shareholders through dividends, increasing dividends for the 36<sup>th</sup> consecutive year.

Sustain The Lead	Deploy Capital	Evolve Portfolio	Change Culture	Belong and Matter
Safest, most diverse, and most profitable	Strategically invest significant available capacity	Grow onsite portion	Safety, Simplicity, Speed, Self-Confidence	Inclusion
Best-in-class performance	Win profitable growth projects globally	Energy, environment and emerging markets	Committed and motivated	Enjoyable work environment
Productivity			Positive attitudes and open minds	Proud to innovate and solve challenges

<sup>1</sup> This is a non-GAAP financial measure. See Appendix A for a reconciliation to the most directly comparable financial measure calculated under GAAP.

## Fiscal 2018 Executive Compensation Highlights

### Target Total Direct Compensation

At the beginning of the year, after benchmarking against peer companies as discussed below, the Management Development and Compensation Committee (within this Compensation Discussion and Analysis, the “Committee”) established fiscal 2018 target total direct compensation for the executive officers. Mr. Ghasemi’s compensation was determined pursuant to his amended and restated employment agreement, dated November 14, 2017, which is described on page 24.

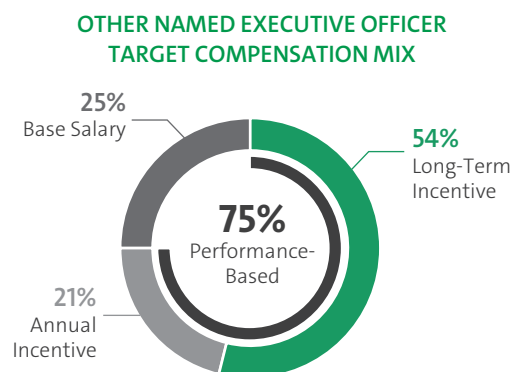
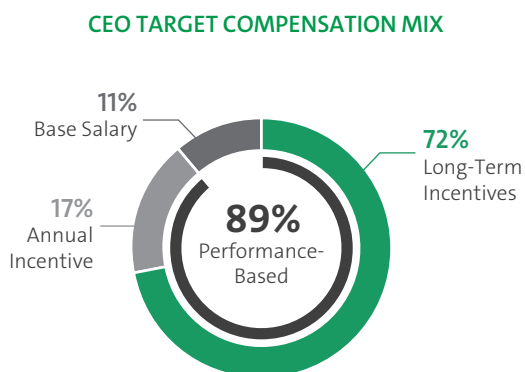
The table below indicates the target total direct compensation opportunity (base salary, annual incentive award target and target value of long-term incentive awards) provided to our named executive officers for fiscal 2018. Total direct compensation that is actually paid to our named executive officers varies from the information below based on the amount of annual incentive awards that are achieved and any discretionary bonuses or severance that is paid out during a fiscal year. This information regarding target total direct compensation opportunity is intended to supplement, but not replace, the Summary Compensation Table, which reports fiscal 2018 compensation in the format required by SEC rules.

Officer	Base Salary (\$)	Annual Incentive Target (\$)	Grant Value of Long-Term Incentives (\$)	Total Direct Compensation (\$)
Seifi Ghasemi	1,350,000	2,025,000	8,500,000	11,875,000
M. Scott Crocco	600,000	510,000	1,700,000	2,810,000
Sean D. Major	550,000	412,500	1,000,000	1,962,500
Samir Serhan	550,000	467,500	1,000,000	2,017,500
Corning F. Painter	600,000	510,000	1,300,000	2,410,000

For fiscal 2018, total direct compensation opportunities established by the Committee for all executive officers (excluding the CEO as referenced below) approximated the market median. At the beginning of fiscal 2018, at the Committee’s direction its compensation consultant, Willis Towers Watson (“WTW”), performed a competitive assessment of Mr. Ghasemi’s total direct compensation and determined long-term incentives and total direct compensation were aligned with the 75<sup>th</sup> percentile for the Peer Reference Group (defined below) while his base salary and target total cash approximated market median. Based on Mr. Ghasemi’s excellent performance during fiscal years 2016-2017, including leading the Company to improvement in safety performance and financial results, the Committee increased Mr. Ghasemi’s base salary from \$1,200,000 to \$1,350,000. Mr. Ghasemi’s resultant positioning on all pay elements was at the 75<sup>th</sup> percentile.

### Performance-Based Compensation

The majority of compensation provided to the Company’s executive officers is dependent upon total returns delivered to shareholders and/or the achievement of performance objectives. Approximately 89% of the CEO’s Total Direct Compensation opportunity is performance-based to ensure that compensation directly reflects the creation of shareholder value.



## Incentive Plan Metrics and Goals

In fiscal 2018, the Committee continued incentive compensation opportunities designed to support the Company's strategies.

The Committee supports the Company's strategy by focusing the Company's annual incentive program on achieving aggressive adjusted earnings per share and EBITDA targets, and the results have been excellent. For fiscal 2018, executive officers' annual incentive awards were again based on adjusted earnings per share, and the adjusted earnings per share targets were translated to adjusted EBITDA targets for the business units below the executive officer level to align rewards with value-creating performance. Target level payouts for fiscal 2018 were conditioned on meeting or exceeding the Company's adjusted earnings per share goal of approximately 9% growth.

For fiscal 2018, the Committee also continued to grant 60% of long-term incentives in performance shares tied to TSR relative to a Peer Reference Group of industrial companies. Additional information about the Peer Reference Group is provided on pages 31-32. This metric reflects the growth in capital that would be experienced from purchasing a share of Company or Peer Reference Group member stock and holding it for the performance period, while reinvesting any dividends paid. The remaining 40% of long-term incentives was granted in restricted stock units ("RSUs") that vest over a four-year period.

### FISCAL 2018 INCENTIVE COMPENSATION

Annual Incentive Metric	Adjusted Earnings Per Share
Performance Shares Metric	Relative TSR
Performance Shares Weight	60% Long-Term Incentive Value
Restricted Stock Units Weight	40% Long-Term Incentive Value

## Pay and Performance Alignment

In fiscal 2018, the Company delivered excellent financial and safety results, including our fourth consecutive year of double-digit annual growth, industry leading safety and EBITDA margins, and successfully executed on the largest and most complex projects in the Company's history. Following the end of the year, the Committee determined actual annual incentive awards for the executive officers. The performance measure for the annual incentive awards was adjusted earnings per share and the payout metrics and calculation methodology are described on pages 25-26. Based on the Company's outstanding performance, the annual incentive award payout factor was 127% for all executive officers.

The Committee also determined final payout levels for performance share awards granted in fiscal 2016 with a performance cycle ending at the end of fiscal 2018, which were conditioned on TSR performance relative to a peer group of similar industrial companies. For the three-year performance period, Air Products delivered a cumulative TSR of 48%; the resultant TSR Percentile Rank was below the threshold required for a minimum payout under the plan. The payout metrics and calculation methodology are described on pages 26-28.

## Shareholder Feedback

Following the 2018 Annual Meeting, the Committee reviewed the results of the shareholder advisory vote on executive officer compensation. With approximately 96.5% of votes cast voted in favor of approval, the Committee determined that the great majority of shareholders were satisfied with the program.

## Compensation Governance Best Practices

In fiscal 2018, the Committee maintained strong compensation governance practices. See page ix of the proxy summary.

## 2 Fiscal 2018 Executive Officer Compensation Program Overview

### Our Compensation Philosophy

**Overview.** The overall objective of our executive officer compensation program is to attract and retain a talented management team and provide them with the right incentives to execute our strategic objectives and to maximize our shareholders’ investment in the Company. The same principles that govern the compensation of all our salaried employees apply to the compensation of our executive officers:

**Tie compensation to strategy and performance and the interests of shareholders.**

The Company’s programs provide incentive compensation opportunities that promote achievement of short- and long-term strategic and financial objectives. Annual incentive compensation targets are aligned with the Company’s adjusted earnings per share goals communicated to shareholders so that executive officers only receive target payouts if we meet shareholders’ expectations and above target payouts if we exceed them. Long-term incentives are delivered in stock and primarily tied to Company TSR so that factors that impact the value of our shareholders’ investment in the Company significantly impact our management team’s compensation.

**Provide competitive compensation for competitive performance.**

The Company seeks to offer compensation opportunities that are sufficient to attract talented and experienced managers who have a choice about where they work, and to discourage them from seeking other opportunities.

**Foster non-financial corporate goals.**

While financial results are the primary commitment the Company makes to shareholders, the compensation program balances financial results with other Company values such as safety, diversity and environmental stewardship. Certain components of the program provide flexibility to adjust compensation upwards or downwards for non-financial and strategic goals and to recoup compensation in cases of misconduct and restatement of financial results.

**Support actions needed to respond to changing business environments.**

The Company has sought to provide some elements of compensation, such as severance benefits, which give the management team or the Board tools to facilitate decisions about succession planning, divestitures and restructurings, or other significant corporate events that may impact the position or employment status of executive officers.

### Fiscal 2018 Direct Compensation

The Committee intends the executive officer compensation program to provide our executive officers with target compensation that, on average, approximates the median for relevant peer groups, with actual compensation driven up or down based on the Company’s operating performance, stock price and overall shareholder return. Individual components of compensation may be greater or lesser than the median, and actual compensation delivered may vary significantly from the target opportunity and the median based on Company or individual performance and changes in Company stock price.

Direct compensation for fiscal 2018 was delivered to the CEO and other named executive officers through the components listed in the table below, which provides a brief description of the principal types of direct compensation, how performance factors into each type of compensation, and the compensation program objectives served by each type. Detailed descriptions of the components of direct compensation begin on page 24.

Component	Description	How Amount Determined/ Performance Considerations	Objectives
<b>Base Salary</b>	Fixed cash payment.	Targeted at market median with adjustment based on level of responsibility, experience and individual performance.	Provide competitive foundational pay.
<b>Annual Incentive</b>	Short-term incentive, cash payment.	Target payout references market median. Actual payout driven by adjusted EPS.	Promote achievement of short-term financial and strategic objectives.
<b>Performance Shares</b>	Deferred stock units that pay out upon achievement of performance targets. Delivered in shares of stock with dividend equivalents also payable on vesting.	Target value based on market median for long-term incentives. Actual payout based on relative TSR over three-year performance period.	Promote achievement of longer-term financial objectives; encourage current decisions that promote long-term value creation; align executive officers' interests with shareholder returns.
<b>Restricted Stock Units</b>	Shares of stock that vest over four-year period and pay dividend equivalents on vesting.	Target value based on market median for long-term incentives. Actual value determined by shareholder returns during vesting period.	Retain executive officers; align executive officers' interests with shareholder returns.

The Committee annually reviews and establishes the performance measures, target goals and payout schedules used for our Annual Incentive Plan and the performance share component of awards granted under our Long-Term Incentive Plan. In determining actual performance against these metrics, the Committee decides whether to include or exclude the impact of items reported in the Company's financial statements that may not be reflective of underlying operating results for the current or a prior year. Adjustments from reported earnings are intended to avoid artificial inflation or deflation of awards due to unusual or non-operational items in the applicable period and align pay outcomes with how the Committee and management view the performance of the business.

## Setting Total Direct Compensation Levels for Fiscal 2018

Overall, the Committee sought to provide total direct compensation target opportunity (base salary, target annual incentive award and long-term incentive award value) for the executive officers that approximated the projected median level for similar positions in the Survey Reference Group and in the case of the CEO and CFO, the projected median level for two data sources—the Survey Reference Group and Peer Reference Group, each weighted equally. Additional information regarding these peer groups is provided on pages 31-32. Consistent with industry practice, the Company considers Total Direct Compensation within 15% of median to be competitive with median. This margin allows for year-to-year swings in data than can occur based on a number of factors unrelated to underlying compensation strategy.

The Company utilizes two peer groups for benchmarking CEO and CFO compensation to ensure that the compensation is reasonably aligned with compensation provided by companies the Company competes against for talent. The Survey Reference Group is comprised of companies that are similar in revenue size to the Company to benchmark specific pay practices. The Peer Reference Group is comprised of peers to determine the Company's relative TSR performance for purposes of performance share payouts. Total direct compensation target opportunities may be established at greater or lesser levels for individual executive officers based on performance factors, experience in the position, retention and succession planning considerations or year-to-year swings in the market reference data.

## Executive Compensation

For fiscal 2018, total direct compensation opportunities established by the Committee for all named executive officers (excluding the CEO as referenced below), approximated the market median. Within the total direct compensation opportunity for each executive officer, individual components of compensation may be greater or lesser than the market median because the Committee is primarily concerned with the competitiveness of the entire program versus any one element of compensation. Compensation realized by each executive officer may vary significantly from target opportunity based on Company or individual performance and Company stock price fluctuation.

As part of the process for determining total direct compensation, the Committee also reviews tally sheets, which detail the value, earnings and accumulated potential payout of each element of an executive officer's compensation in various employment termination scenarios. The tally sheets help the Committee consider the retention value of an executive officer's accumulated compensation package, compare executive officers' accumulated compensation and understand the impact of compensation decisions on various termination of employment scenarios.

### Mr. Ghasemi.

Mr. Ghasemi's Employment Agreement was amended and restated on November 14, 2017, and provides that Mr. Ghasemi will receive a minimum annual base salary of \$1,200,000 and participate in the Company's Annual Incentive Plan with a minimum target annual incentive award equal to 150% of base salary, with actual awards to be determined by the Committee. Under the Agreement, Mr. Ghasemi was also entitled to receive minimum annual equity compensation awards under the Company's Long-Term Incentive Plan with a grant date value (determined under the Company's normal valuation practices) of \$7,000,000, apportioned in a manner consistent with the allocation for other executive officers.

At the Committee's direction, WTW performed a competitive assessment of Mr. Ghasemi's Total Direct Compensation at the beginning of fiscal 2018 and determined long-term incentives and total direct compensation were aligned with the 75<sup>th</sup> percentile for the Peer Reference Group, while his base salary and target total cash approximated market median. Based on Mr. Ghasemi's excellent performance during fiscal years 2016-2017, including leading the Company to improvement in safety performance and financial results, the Committee increased Mr. Ghasemi's base salary from \$1,200,000 to \$1,350,000. Mr. Ghasemi's resultant fiscal 2018 pay positioning is at the 75<sup>th</sup> percentile.

## 3 Fiscal 2018 Direct Compensation Components

Within the competitive target value for an executive officer's Total Direct Compensation established by the Committee, the Committee determines the individual compensation components of the program.

### Base Salary

Base salary is generally targeted at the market median, with adjustment where the Committee believes appropriate for proficiency, performance, experience and the uniqueness of the responsibilities held by certain executive officers. Changes in base salaries for executive officers become effective as of the first payroll period in the calendar year; so the amounts in the Summary Compensation Table reflect the fiscal 2017 base salary rate for the first quarter of the Company's fiscal year and the fiscal 2018 base salary rate for the remainder of the fiscal year. For fiscal 2018, the CEO's base salary was increased and, as a result, it aligned with the 75<sup>th</sup> percentile. For all other named executive officers, base salaries remained the same and approximated market median.

Base salaries approved for the executive officers for fiscal 2017 and fiscal 2018 were as follows:

Officer	2017 Base Salary Rate (\$)	2018 Base Salary Rate (\$)	% Increase
Seifi Ghasemi	1,200,000	1,350,000	12.5
M. Scott Crocco	600,000	600,000	0
Sean D. Major	550,000	550,000	0
Samir Serhan	550,000	550,000	0
Corning F. Painter	600,000	600,000	0

## Annual Incentive Plan

Target annual incentive opportunities under the Annual Incentive Plan are intended to approximate the market median. Targets may be established at greater or lesser levels for individual executive officers based on performance factors, internal equity, experience in the position or year-to-year swings in the market data. Actual annual incentive awards may be above or below target depending upon the Company's fiscal year performance as measured by the performance measures and goals established by the Committee at the beginning of the fiscal year. When performance exceeds the target goals for the performance measures, annual incentive awards may exceed target as well, and may exceed market median payouts. Actual annual incentive awards can range from 0% to 230% of target, inclusive of up to 30 percentage points of positive discretion. Over the previous five years, executive officer awards have ranged from 50% to 200% of target.

Determination of annual incentive awards is a multi-step process which begins with establishing target opportunities. At the beginning of the fiscal year, the Committee determines executive officer target annual incentive awards as a percentage of each executive officer's base salary based on the Survey Reference Group and Peer Reference Group (for the CEO and CFO) competitive assessment. For fiscal 2018, the target award level for Mr. Major and Dr. Serhan was increased to enhance overall amount of performance-based compensation and to align target bonus opportunities reflective of job scope. All other named executive officers remained the same for fiscal 2018.

Officer	2017 Target (% of Base Salary)	2018 Target (% of Base Salary)	2018 Target Value (\$)
Seifi Ghasemi	150%	150%	2,025,000
M. Scott Crocco	85%	85%	510,000
Sean D. Major	70%	75%	412,500
Samir Serhan	70%	85%	467,500
Corning F. Painter	85%	85%	510,000

An executive officer's actual award is determined by multiplying the target award by his or her individual payout factor.

As a first step in determining an executive officer's individual payout factor, the Committee determines an initial payout factor derived from the Company's performance against the payout schedules established by the Committee at the beginning of the fiscal year. As described above, for fiscal 2018 the Committee selected rigorous adjusted earnings per share<sup>(1)</sup> targets as the performance measure for the Annual Incentive Plan to sustain the Company's position as the most profitable industrial gas company in the world. Target adjusted earnings per share of \$6.90 represents a 9.35% increase from fiscal 2017 adjusted earnings per share of \$6.31. The threshold, target and maximum factors for each measure are set out below. (Factors are interpolated between points.)

2018 Adjusted Earnings per Share <sup>(1)</sup>	Initial Payout Factor %
<\$6.31	0%
\$6.31	50%
\$6.90	100%
\$7.20	200%

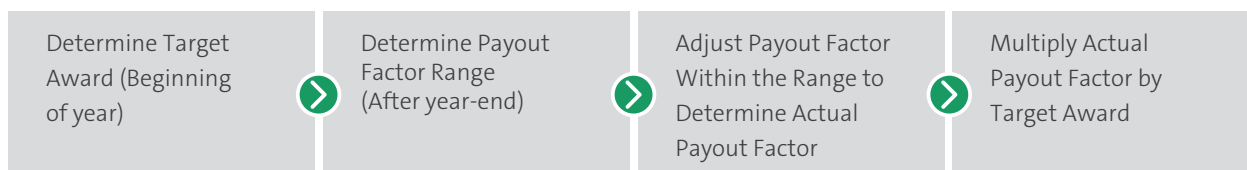


## Executive Compensation

<sup>(1)</sup> Adjusted earnings per share is defined as Non-GAAP EPS, as referenced in Appendix A, and further adjusted to eliminate the effect of foreign exchange fluctuations not anticipated in the operating plan.

Further, consistent with the Company's position as the safest industrial gas company in the world and other non-financial and strategic goals, the Committee also reserved the ability to adjust the payout within a range to reflect performance in areas such as safety, sustainability, diversity and productivity, progress on strategic objectives or individual performance factors. The actual payout factor can range from 30 percentage points below the initial payout factor determined using the schedule above based on Company performance for the year to 30 percentage points above the initial payout factor.

### DETERMINATION OF ANNUAL INCENTIVE PLAN PAYOUT



For fiscal 2018, adjusted earnings per share was \$6.98, which resulted in an initial payout factor of 127%. The potential payout range was 97% to 157%; however, the Committee decided not to exercise its discretion to adjust the initial payout factor. Fiscal 2018 awards determined for executive officers appear in the Non-Equity Incentive Plan Compensation column of the Summary Compensation Table.

## Long-Term Incentives

The Committee believes long-term incentive compensation is the most critical part of executive officer compensation because it creates alignment with shareholders and promotes achievement of long-term financial and strategic objectives. The success of the Company's business and resulting value for our shareholders is predominantly built on stable, long-term relationships with customers and substantial capital investments that reap returns over a long time horizon through technological differentiation, cost control and operational efficiencies. Reflecting this long-term business model, the Committee emphasizes long-term incentive compensation designed to ensure that the decisions being made today build value for the long term, and to reward sustainable growth, disciplined capital investment, sustainable cost reduction and consistent operational excellence. For fiscal 2018, the Committee selected two components for the executive officer's long-term incentives: performance shares which are conditioned on performance over a three-year period (for fiscal 2018 grants, relative TSR for fiscal 2018-2020); and RSUs which link executive officers' interests to shareholder returns and provide a retention incentive.

For fiscal 2018, the mix of intended long-term incentive value for executive officers was 60% performance shares and 40% RSUs. The Committee chose this mix to provide a balance of stock-based compensation to encourage both above-market performance and talent retention. Because both components of an executive officer's long-term incentive opportunity are delivered in stock-based awards, their value is based on our stock price, which serves the Committee's objective of creating alignment with shareholders.

The Committee determined the level of long-term incentive grants for fiscal 2018 at the beginning of the fiscal year. Prior to making the grants, the Committee established an intended long-term incentive value for each executive officer. When setting these intended values, the Committee considered the Survey and Peer Reference Group competitive data and target total direct compensation opportunities. It is the Committee's intent that the long-term incentive value and total direct compensation opportunity for our CEO be at the 75<sup>th</sup> percentile of the Peer Reference Group. It is the Committee's intent that for executive officers other than our CEO, the long-term incentive value approximate the market median and the total direct compensation opportunity for such executive officers approximate the market median level when combined with base salary and target Annual Incentive Plan awards.

Individual performance or other factors may result in awards which are above or below the market median. These factors include tenure and experience, succession planning and retention, subjective evaluations of performance, historical

grant levels and other recent compensation actions with respect to the individual such as special retention awards. For fiscal 2018, all intended long-term incentive values approximated the projected market median (except for the CEO value, which approximated the 75th percentile). The actual value realized may differ significantly (up or down) from the intended value due to Company stock price performance over the life of the awards and the extent to which performance goals are met in the case of performance shares.

Officer	Intended Long-Term Incentive Value (\$)
Seifi Ghasemi	8,500,000
M. Scott Crocco	1,700,000
Sean D. Major	1,000,000
Samir Serhan	1,000,000
Corning F. Painter	1,300,000

## Performance Shares

The more significant component of long-term incentives granted to our executive officers in fiscal 2018 was performance shares. Performance shares entitle the recipient to receive one share of Company stock and accumulated dividend equivalents for each performance share earned upon the satisfaction of performance objectives and other conditions to earning the award. Performance shares are granted each year with overlapping three-year performance cycles. The awards are paid out at the end of the three-year period based on performance, if threshold performance goals are met. Payouts of performance shares range from 0% to 200% of the target level of shares awarded. The target level for fiscal 2018 grants, (60% of each executive officer's total intended long-term incentive value), was converted to a number of shares based on the grant date closing price of Company stock. The actual number of performance shares earned is determined by multiplying the target number of shares by a payout factor, which is subject to adjustment by the Committee within a narrow range to address performance factors that may not be reflected in relative TSR results.

Fiscal 2018 performance shares were granted conditioned upon the Company's three-year TSR percentile rank compared to the TSR of Peer Reference Group members over the three-year performance period (fiscal 2018-2020). The payout factor will be determined in accordance with the following schedule (with payout factors interpolated between levels):

Company's TSR Percentile Rank	Payout Factor*
>75 <sup>th</sup> %ile	200%
50 <sup>th</sup> %ile	100%
30 <sup>th</sup> %ile	30%
<30 <sup>th</sup> %ile	0%

\* The Committee may increase or decrease the Payout Factor by up to 15 percentage points.

The target number of fiscal 2018 performance shares granted to each named executive officer was as follows:

Officer	Target Performance Shares
Seifi Ghasemi	31,489
M. Scott Crocco	6,297
Sean D. Major	3,704
Samir Serhan	3,704
Corning F. Painter	4,816

The Committee determined final payout levels for performance share awards granted in fiscal 2016 with a performance cycle ending at the end of fiscal 2018. Prior to determining the payout, the Committee considered the need to reflect the impact on TSR of the spin-off of Versum Materials. The Committee determined the most logical way to reflect the spin-off was to calculate the TSR performance as if one half of a share of Versum Materials (the distribution received by

## Executive Compensation

shareholders for each share of Company stock) was included in the Company's TSR through the end of the performance period. The resulting cumulative TSR was 48%, which was the 14<sup>th</sup> percentile compared to the Peer Reference Group. Air Products' TSR percentile rank was below the 30<sup>th</sup> percentile threshold required for a minimum payout under our Long-Term Incentive Plan.

This resulted in a zero percent payout of performance shares for the fiscal 2016-2018 performance cycle as outlined in the following table.

### FISCAL 2016-2018 PERFORMANCE SHARES PAYOUT

Officer <sup>(1)</sup>	Target Performance Shares Grant <sup>(2)</sup>	Performance Shares Earned <sup>(3)</sup>
Seifi Ghasemi	32,332	0
M. Scott Crocco	6,006	0
Samir J. Serhan	4,694	0
Corning F. Painter	6,006	0

<sup>(1)</sup> Dr. Serhan joined the Company in early fiscal 2017 and received a grant of fiscal 2016 performance shares as a sign-on award. Mr. Major joined the Company later in fiscal 2017 and did not participate in these awards.

<sup>(2)</sup> Target performance shares were adjusted by a share price ratio of 1.071 on October 1, 2016 in conjunction with the spin-off of Versum Materials. This adjustment was provided for under the non-discretionary anti-dilution provisions for the award terms to maintain the intrinsic value of the award immediately after the spin-off.

<sup>(3)</sup> Based on final payout factor of 0%.

## Restricted Stock Units

Restricted stock units entitle the recipient to receive one share of Company stock upon payout, generally at the end of a four-year vesting period. RSUs are conditioned upon continued employment during the vesting period but are subject to special vesting rules for terminations due to death, disability or retirement or terminations covered by the Executive Separation Program described on pages 45-48. Upon vesting, RSUs also entitle the holder to receive dividend equivalents equal to the amount of dividends paid on a share of Company stock during the vesting period. The vesting conditions provide an incentive for retention, and the value of this compensation element increases or decreases in direct proportion to our TSR. The value of RSUs granted to the executive officers in fiscal 2018 is reflected in the Summary Compensation Table and the Grants of Plan-Based Awards table. Individual award amounts were determined by calculating the value (based on the average closing stock price for the 10 trading days preceding the grant date) to approximate 40% of the total intended long-term incentive value for the executive officer.

In fiscal 2018 we granted RSUs to our named executive officers as follows:

Officer	RSUs
Seifi Ghasemi	20,992
M. Scott Crocco	4,198
Sean D. Major	2,469
Samir J. Serhan	2,469
Corning F. Painter	3,210

Following the completion of fiscal 2018, the Committee granted Dr. Serhan 9,424 RSUs in December 2018 as a special retention award that will vest in three equal installments beginning on December 3, 2019. Dr. Serhan also received an adjustment to his salary and an increase in the value of his annual equity grants. The Committee took these actions in recognition of the expanding scope of Dr. Serhan's responsibilities in our operations and, in particular, the leadership role he will play in winning and executing the Company's largest projects and building out and integrating our global gasification technologies.

## 4 Employee Benefit Plans and Other Compensation

Our employee benefit programs are offered and designed to be competitive and to provide reasonable security for employees. Welfare and retirement benefits are offered at essentially the same level to all U.S. salaried employees, including executive officers.

### Retirement Benefits

Executive officers participate in the Company's generally available U.S. salaried retirement programs. The Company maintains qualified retirement programs for its salaried employees, including a defined benefit Pension Plan for Salaried Employees (the "Salaried Pension Plan"), which has been closed to new entrants since 2005, and a retirement savings and profit sharing plan. The Company also maintains a nonqualified pension plan which is closed to new entrants and a nonqualified deferred compensation plan in which certain executive officers and other eligible employees participate. The plans are discussed in more detail below in the narrative accompanying the Pension Benefits table and the Nonqualified Deferred Compensation table.

### Welfare Benefits

The Company provides medical and dental coverage, life insurance and disability insurance to executive officers under the same programs offered to all salaried employees. All participating employees pay a portion of the cost of these programs.

### Severance and Change in Control Arrangements

Executive officer severance and change in control arrangements are provided to support major corporate and management transitions. The Committee believes these arrangements provide benefit to the Company and its shareholders. The Committee periodically reviews these arrangements in depth for market competitiveness and appropriateness for the Company's business.

#### Severance

All executive officers participate in the Executive Separation Program. This program is intended to facilitate changes in the leadership team by establishing terms for the separation of an executive officer in advance, allowing a smooth transition of responsibilities when it is in the best interests of the Company. The program provides severance benefits and vesting of certain long-term incentives upon involuntary termination other than for cause or voluntary termination for good reason in exchange for certain post-employment restrictions designed to protect the Company. Details of the program are provided beginning on page 45.

#### Change in Control Arrangements

To enable the management team to negotiate effectively for shareholders without concern for their own future in the event of any actual or threatened change in control of the Company, the Company has entered individual change in control severance agreements for each of the executive officers. Consistent with compensation governance best practice, our change in control agreements are "double-trigger," which means that each executive officer will receive specific rights and benefits if, following a change in control, his or her employment is terminated by the Company without "cause" (as defined) or he terminates employment for "good reason" (as defined) in exchange for certain post-employment restrictions. Details of the agreements are described on pages 48-49.

### Perquisites

The Committee has approved Mr. Ghasemi's use of corporate aircraft for personal travel in order to mitigate security concerns, preserve confidentiality and maximize the time he is able to spend on the Company's business. The Committee has also approved Mr. Ghasemi's personal use of a Company car and driver and Mr. Ghasemi's spouse's use of a car and driver on rare occasions where security is a concern. Mr. Ghasemi uses commuting time for performing his

## Executive Compensation

responsibilities to the Company. Mr. Ghasemi is responsible for any taxes on his personal use and his spouse's use of corporate aircraft and cars. The Committee believes the benefits of security, confidentiality and efficiency achieved by these arrangements outweigh the expense to the Company and are in the best interests of shareholders.

## 5 Executive Compensation Decision-Making Process

### Roles of the Committee, Compensation Consultant and Management in the Compensation Process

#### Committee Responsibilities

The Committee is responsible to the Board and to shareholders for establishment and oversight of the Company's compensation program for executive officers, and for approving the compensation level of the executive officers. The Committee establishes overall compensation strategies and policies for the executive officers, allocates compensation for executive officers among the various components of compensation, evaluates and approves performance measures and goals relevant to the incentive compensation of the executive officers, evaluates the performance of the CEO with input from the Board, determines direct compensation levels for the CEO, and evaluates and approves direct compensation levels for other executive officers. Each year, the Committee:

- reviews and evaluates the appropriateness of the Company's current executive officer compensation program based on several factors, including competitiveness of the program and alignment of compensation delivered under the program with the Company's strategy and performance;
- reviews whether the program design encourages excessive risk taking;
- approves peer groups for market reference;
- reviews dilution and burn rates associated with the Company's equity compensation;
- evaluates and approves changes to incentive compensation and benefit plans when needed;
- approves incentive compensation payouts for the current year; and
- addresses other specific issues regarding management development and compensation as needed.

Periodically, the Committee also undertakes an extensive review of the competitiveness and appropriateness of certain pay practices such as severance and change in control arrangements.

#### Engagement of Compensation Consultant

The Committee retains an external compensation consultant to provide independent advice, information and analysis on executive compensation. The Committee has established several practices to ensure the external consultant's independence, candor and objectivity. The consultant is engaged by, has its compensation set by, and reports directly to the Committee, frequently meets separately with the Committee with no members of management present, and consults with the Committee chairman in between meetings. Management reports fees paid for executive compensation consulting services performed by the consultants to the Committee at each meeting and the Committee approves in advance the executive compensation consulting services to be performed.

The Committee retained WTW as its external consultant for fiscal 2018. Aggregate fees for WTW's executive compensation consulting services provided to the Committee were \$158,000. During fiscal 2018, WTW also performed global retirement plan actuarial, administrative and consulting, health care exchange and aviation insurance brokering services for the Company in addition to the work performed for the Committee. The aggregate fees for those services were \$677,000.

The decision to engage a predecessor to WTW for actuarial services was made over a decade ago after an extensive bid process. WTW is one of few firms which is able to provide these services on a global basis. Decisions to hire WTW for the health care exchange and insurance brokering services were made by the responsible functional managers after a bid process.

During fiscal 2018, WTW provided advice and analysis to the Committee on direct compensation for individual executive officers, peer group composition, incentive plan performance measures, compensation program design and external trends and developments. WTW also provided an analysis of the alignment of pay delivered under the Company's executive officer compensation program with its performance compared to peer group pay and performance, an assessment of the fit of the Company's executive officer compensation program design with its business strategy, a comparison of the program design to peer programs, and an assessment of the potential relationship between the Company's compensation program and risk taking by management.

#### Independence Assessment

The Committee has assessed WTW's independence and concluded that there are no conflicts of interest that would prevent WTW from independently advising the Committee. In making this determination, the Committee considered, among other things, the fees paid for services provided to management as a percentage of WTW's consolidated revenues, policies and procedures established by WTW to mitigate conflicts of interest, and the lack of business and personal relationships between WTW team members and the Company's executive officers or Committee members.

### Management Input

While the Committee determines overall compensation strategy and policies for the executive officers and approves their compensation, it seeks input from several executive officers and other management employees with respect to both overall guidelines and discrete compensation decisions. Specifically:

- Human Resources staff work with the Committee to develop the design of compensation programs and decision-making frameworks for determining compensation levels;
- the CEO provides input to the Committee on the forms of incentive compensation and performance measures that will best support his strategic goals for the Company;
- the CEO provides the Committee perspective on the performance of other executive officers and develops and recommends compensation actions for the other executive officers, in consultation with Human Resources, and based on competitive market analysis;
- the CFO provides background to the Committee regarding the Company's key financial objectives and performance against them; and
- the Company's Law and Human Resources staff provide technical advice and other support to the Committee.

These executive officers and employees attend portions of the Committee meetings; however, the Committee meets in executive session both alone and with its external compensation consultant to reach final decisions about CEO and other executive officers' compensation.

### Benchmarking

The Committee believes that a threshold characteristic of reasonable compensation is that it is aligned with compensation provided by companies the Company competes against for talent. In preparation for determining fiscal 2018 compensation, the Committee benchmarked the executive officer compensation levels to evaluate the competitiveness of the program and as a reference for establishing compensation levels for fiscal 2018.

## Executive Compensation

The Committee uses two peer groups for benchmarking, which it reviews and approves annually.

### PEER GROUPS

Name	Criteria	Purpose	Source
Survey Reference Group	Broad group of industrial companies with \$7 – 13 billion in revenue	Benchmark competitive executive officer direct compensation levels at target	WTW and Mercer surveys
Peer Reference Group	Chemical and industrial companies with similar capital structure, asset intensity and profitability to Company	Benchmark competitive direct compensation levels for CEO and CFO, pay practice and pay for performance assessment, peer group for performance share relative TSR measure	Compiled from proxy statement filings

For purposes of assessing competitiveness and recommending compensation levels for fiscal 2018, the Committee used survey data from WTW and Mercer compensation databases on a group of industrial companies with revenue of \$7 to \$13 billion (consistent with the Company’s fiscal 2017 revenue of \$8.2 billion) (the “Survey Reference Group”). This Survey Reference Group is representative of the companies the Company competes against for talent and is used by the Company for various compensation benchmarking purposes, not just executive officer compensation. A list of companies included in the Survey Reference Group is provided in Appendix B on page B-1.

Prior to the beginning of the fiscal year, the Committee reviewed an assessment of each named executive officer’s compensation level relative to the Survey Reference Group based on similar functional responsibilities. The assessment identified median, 25<sup>th</sup> and 75<sup>th</sup> percentile levels for base salary, target annual incentive, target long-term incentives and target total direct compensation. Annual and long-term incentive levels reflected a three-year average to reduce volatility in results.

The Committee also reviewed proxy data compiled from a smaller group of companies that are competitors of the Company or are similar to the Company in that they are chemical or other industrial companies with similar capital structures, asset intensity, operating margins and business models (the “Peer Reference Group”). Peer Reference Group companies are generally similar in revenue size to the Company, however certain companies with higher revenues are included based on proximity of business model. The Committee used the Peer Reference Group for benchmarking specific pay practices and for assessing alignment of pay with performance. In addition, the Committee also uses the Peer Reference Group to assess competitive compensation levels for CEO and CFO total direct compensation. Because proxy data does not necessarily reflect similar positions to the other executive officers, only the Survey Reference Group is used to benchmark pay levels for them. The Peer Reference Group is also used for determining the Company’s relative TSR performance for purposes of performance share payouts.

The fiscal 2018 Peer Reference Group consisted of the following companies:

Celanese Corp.	Ecolab Inc.	Olin Corporation
Chemours Company	Huntsman Corp.	Parker-Hannifin Corp.
Danaher Corp.	Illinois Tool Works, Inc.	PPG Industries, Inc.
Dover Corp.	Ingersoll-Rand plc	Praxair, Inc.
Eastman Chemical Co.		

For fiscal 2018, the Peer Reference Group was updated to add Chemours Company and Olin Corporation and to remove Du Pont (E.I.) De Nemours & Co., Eaton Corp., Rockwell Automation Inc. and TE Connectivity, Ltd. Eaton Corp., Rockwell Automation Inc. and TE Connectivity, Ltd. were closely aligned with the Materials Technologies business and were removed from the peer group following the spin-off of Versum Materials. Chemours Company and Olin Corporation were added as peers based on their fit with our business strategy focused on industrial gases. Du Pont (E.I.) De Nemours & Co. was removed from the peer group as a result of the DowDuPont merger.

## Risk Assessment

During fiscal 2018, the Committee, with assistance from WTW, conducted a risk assessment of the Company's executive officer compensation program. The Committee concluded that the program is balanced and does not provide an enticement for executives to take risks that are likely to have an adverse effect on the Company, due to the following features:

- the Company does not use highly leveraged short-term incentives that drive risky investments at the expense of long-term Company value;
- the Company's compensation programs reward consistent, long-term performance by heavily weighting compensation to long-term incentives;
- concentration of long-term incentive compensation in awards based on relative TSR combined with overlapping grant cycles strengthens executives' incentive to foster stable, long-term performance;
- cash incentive awards are capped at sustainable levels, and the Committee has discretion to reduce awards, including for non-financial considerations;
- the Company enforces substantial executive officer stock ownership and holding requirements;
- the Company has recovery policies ("clawbacks") applicable to incentive compensation that permit the Company to cancel awards and recoup certain gains in the event of conduct detrimental to the Company.

In addition, management conducted and reported to the Committee on its evaluation of the Company's overall compensation practices and programs to assess whether any of these programs and practices exposed the Company to excessive risk taking, concluding there were no such programs or practices.

## 6 Key Compensation Practices and Policies

### Executive Officer Stock Ownership

The Committee has approved ownership guidelines that require executive officers to achieve an ownership stake in the Company that is significant in comparison with the executive officer's salary. The ownership guidelines are six times base salary for the CEO and three times base salary for the other executive officers. The executive officers are expected to achieve the specified ownership level within five years of assuming their position. Executive officers may count toward these requirements the value of shares owned, share equivalents held in their Retirement Savings Plan accounts, earned performance shares, restricted shares, unvested RSUs and deferred stock units which are fully vested and held in the Company's nonqualified Deferred Compensation Plan. Stock options and unearned performance shares are not counted. All executive officers are currently in compliance with this policy.

### Hedging and Pledging Policy

It is the policy of the Company that executive officers and directors may not purchase or sell options on Company stock; engage in short sales with respect to Company stock; or trade in puts, calls, straddles, equity swaps or other derivative securities that are directly linked to Company stock. It is also the policy of the Company that shares of Company stock owned by executive officers or directors may not be held in a margin account or pledged as collateral on a loan.

### Clawback Policy

The Company's equity plans and agreements provide that awards may be cancelled and that certain gains will be "clawed back" (i.e., must be repaid to the Company) if an executive officer engages in activity that is detrimental to the Company, such as performing services for a competitor, disclosing confidential information or violating Company policies. The Committee has also adopted a policy allowing the clawback of cash incentive payments and performance



## Executive Compensation

shares in the event an executive officer's conduct leads to a restatement of the Company's financial results. The Committee may, in its discretion, seek to recoup any bonus or incentive compensation paid to an executive officer if (i) the amount of such payment was based on the achievement of certain financial results that were subsequently the subject of a restatement, (ii) the Committee determines that the executive officer engaged in misconduct that resulted in the requirement to restate and (iii) a lower payment would have been made to the executive officer based upon the restated financial results.

## Granting Practices

Equity compensation awards are provided to executive officers and approximately 200 other management employees under the Company's Long-Term Incentive Plan and (except for off-cycle recruiting and retention awards) are granted as of the first NYSE business day in the month of December. Recruiting grants are generally issued as of the first day of employment. Off-cycle retention grants are made occasionally in response to extraordinary retention needs that arise during the year.

# Executive Compensation Tables

## Fiscal 2018 Summary Compensation Table

Name and Principal Position	Year	Salary (\$)	Bonus <sup>(2)</sup> (\$)	Stock Awards <sup>(3)</sup> (\$)	Non-Equity Incentive Plan Compensation <sup>(4)</sup> (\$)	Changes in Pension Value and Nonqualified Deferred Compensation Earnings <sup>(5)</sup> (\$)	All Other Compensation <sup>(6)</sup> (\$)	Total (\$)
<b>Seifi Ghasemi,</b> Chairman, President and Chief Executive Officer	2018	1,309,615	—	9,788,563	2,571,750	6,181	265,398	13,941,507
	2017	1,200,000	—	9,194,498	3,276,000	5,793	283,476	13,959,767
	2016	1,200,000	—	6,839,951	3,240,000	4,290	251,592	11,535,833
<b>M. Scott Crocco,</b> Executive Vice President and Chief Financial Officer	2018	600,000	—	1,957,485	647,700	726,537	8,851	3,940,573
	2017	600,000	250,000	1,622,219	928,200	1,959,685	19,179	5,379,283
	2016	597,308	—	1,270,434	1,020,000	1,311,416	19,608	4,218,766
<b>Sean D. Major,</b> Executive Vice President, General Counsel and Secretary <sup>(1)</sup>	2018	550,000	—	1,151,372	523,875	187	45,140	2,270,574
<b>Samir Serhan,</b> Executive Vice President <sup>(1)</sup>	2018	550,000	770,000	1,151,372	593,725	472	61,418	3,126,987
	2017	448,462	1,100,000	2,132,692	700,700	71	477,748	4,859,673
<b>Corning F. Painter,</b> Former Executive Vice President, Industrial Gases <sup>(1)</sup>	2018	461,538	—	1,496,994	—	4,342,921	2,589,855	8,891,308
	2017	600,000	—	1,405,789	928,200	2,582,803	19,179	5,535,971
	2016	600,000	—	1,270,434	1,020,000	1,433,449	21,777	4,345,660

<sup>(1)</sup> Mr. Major and Dr. Serhan joined the Company in fiscal 2017 and became named executive officers in fiscal 2018 and fiscal 2017, respectively; therefore their compensation is not shown for prior years. Mr. Painter separated from the Company on June 30, 2018.

<sup>(2)</sup> This column includes a transactional bonus paid to Mr. Crocco upon the completion of the sale of the Performance Materials business and sign-on bonuses paid to Dr. Serhan in his first month and first year anniversary with Air Products.

<sup>(3)</sup> Amounts in this column represent the U.S. GAAP grant date fair value of RSUs (2018 and 2017), restricted stock (2016) and performance share awards granted in the fiscal year indicated, disregarding any estimate of forfeitures related to time-based vesting. Generally, the expense for these awards is recognized over the vesting or performance period unless the recipient is eligible for retirement and the award vests upon retirement, in which case the expense may be required to be recognized entirely in the year of grant. The valuation models and assumptions applicable to these grant date fair values are set forth in Note 19, Share-Based Compensation, to our audited financial statements included in our Annual Report on Form 10-K for the fiscal year ended September 30, 2018, filed with the SEC on November 20, 2018. The amounts shown may not correspond to the actual value that will be realized by the executive officers. The grant date fair values of the performance shares are based upon the grant date probable outcomes of satisfying the performance conditions stipulated in the grants. Maximum grant date values are displayed in the table below. Maximum values reflect the maximum calculated payout at 200% as well as the maximum discretion that could be applied of up to 15% based on grant date stock price. For additional information on awards made in fiscal 2018, see the Fiscal 2018 Grants of Plan-Based Awards Table and Outstanding Equity Awards at 2018 Fiscal Year-End Table on pages 37 and 39, respectively.

### FISCAL 2018 PERFORMANCE SHARES GRANT DATE VALUES

Officer	Value Included (\$)	Maximum Value (\$)
Seifi Ghasemi	6,395,416	10,943,246
M. Scott Crocco	1,278,921	2,188,371
Sean D. Major	752,282	1,287,236
Samir Serhan	752,282	1,287,236
Corning F. Painter	978,130	1,673,685

<sup>(4)</sup> Amounts in this column reflect Annual Incentive Plan awards. At their election, executive officers may defer awards received under this plan.

## Executive Compensation

- (5) Amounts in this column reflect the annual change in the actuarial present value of each executive officer's accumulated tax-qualified and nonqualified pension benefits and interest considered to be above-market interest credited to their Deferred Compensation Plan balances. Interest is calculated for the Deferred Compensation Plan accounts using a Moody's A-rated Corporate Bond Rate because it is comparable to the rate the Company pays its other creditors on long-term obligations. When this rate exceeds 120% of a rate set by the U.S. Internal Revenue Service, it is treated as above-market interest, even though it is based on a market average for corporate bonds. The amounts included as above-market interest were as follows:

### ABOVE-MARKET INTEREST

Seifi Ghasemi	\$ 6,181
M. Scott Crocco	\$5,763
Sean D. Major	\$ 187
Samir Serhan	\$ 472
Corning F. Painter	\$3,559

The pension accrual amounts represent the difference between the September 30, 2017 and September 30, 2018 actuarial present value of accumulated benefits under the Company's tax-qualified and nonqualified pension plans for those executive officers who participate in the pension plans. No amounts are shown in the Summary Compensation Table for negative changes in value. The pension accrual amounts are as follows:

### PENSION ACCRUALS

M. Scott Crocco	\$ 720,774
Corning F. Painter	\$4,339,362

No changes were made to pension benefit formulas for this year. Changes in pension value can result from additional years of service, changes in pensionable compensation and changes to discount and mortality rates. Additional information on how these amounts are calculated is included in the footnotes accompanying the Pension Benefits Table.

- (6) Amounts shown in this column are detailed in the chart below.

Officer	Severance (\$)	Contributions Under Defined Contribution Plans (\$)	Group Term Life Insurance Premiums (\$)	Perquisites or Personal Benefits (\$)
Seifi Ghasemi	—	196,348	1,236	67,814 <sup>(i)</sup>
M. Scott Crocco	—	7,615	1,236	—
Sean D. Major	—	43,904	1,236	—
Samir Serhan	—	60,182	1,236	—
Corning F. Painter	2,582,005 <sup>(ii)</sup>	6,923	927	—

- (i) This amount includes the incremental cost to the Company of providing Mr. Ghasemi a car and driver for occasional personal use (\$25,666), including for occasional use by his spouse to mitigate security concerns, and of providing Mr. Ghasemi personal use of corporate aircraft (\$42,148). The incremental cost for the car and driver is calculated using the U.S. Internal Revenue Service mileage rate based on the variable costs of operating a vehicle. The variable cost rate is used rather than the standard business rate as the Company uses the car and driver for Company business, including to transport other passengers, when not being used by Mr. Ghasemi, and would incur the fixed costs of operating the vehicle and employing the driver whether or not Mr. Ghasemi was provided the car and driver for commuting. In addition to the mileage rate, which includes trips to and from Mr. Ghasemi's residence with no passengers, the amount calculated for use of the car and driver includes tolls and overtime compensation and reimbursement for meals and lodging provided to the driver in connection with Mr. Ghasemi's use. Mr. Ghasemi pays all taxes associated with personal use of the car and driver.

The incremental cost of the corporate aircraft is calculated using an hourly rate for each flight hour for variable operating costs (fuel and maintenance) plus flight specific costs such as parking and landing fees and crew expenses. The valuation also includes these costs with respect to flights with no passengers that are associated with Mr. Ghasemi's personal travel. Fixed costs such as pilot compensation and lease payments are not included as the aircraft is primarily used for business purposes, and the Company would incur these costs regardless of Mr. Ghasemi's personal use. Mr. Ghasemi's family members traveled with Mr. Ghasemi on some of the flights reflected; however, no incremental cost to the Company arises from their accompanying Mr. Ghasemi. Mr. Ghasemi pays all taxes associated with personal use of the aircraft.

- (ii) Reflects severance paid to Mr. Painter in connection with his separation from the Company. For additional information, see Potential Payments Upon Termination — Mr. Painter's Separation Agreement on page 46.

## Fiscal 2018 Grants of Plan-Based Awards Table

Officer	Award Type	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards (\$)			Estimated Future Payouts Under Equity Incentive Plan Awards(1)			All Other Stock Awards: Number of Shares of Stock or Units(1)	Grant Date Fair Value of Stock and Option Awards (\$)(1)
			Threshold	Target	Maximum	Threshold	Target	Maximum		
Seifi Ghasemi	Annual Incentive Plan		—	2,025,000	4,000,000					
	Performance Shares	12/1/2017				0	31,489	67,701	6,395,416	
	Restricted Stock Units	12/1/2017							20,992	
M. Scott Crocco	Annual Incentive Plan		—	510,000	1,173,000					
	Performance Shares	12/1/2017				0	6,297	13,539	1,278,921	
	Restricted Stock Units	12/1/2017							4,198	
Sean D. Major	Annual Incentive Plan		—	412,500	948,750					
	Performance Shares	12/1/2017				0	3,704	7,964	752,282	
	Restricted Stock Units	12/1/2017							2,469	
Samir Serhan	Annual Incentive Plan		—	467,500	1,075,250					
	Performance Shares	12/1/2017				0	3,704	7,964	752,282	
	Restricted Stock Units	12/1/2017							2,469	
Corning F. Painter	Annual Incentive Plan		—	510,000	1,173,000					
	Performance Shares	12/1/2017				0	4,816	10,354	978,130	
	Restricted Stock Units	12/1/2017							3,210	

<sup>(1)</sup> Mr. Painter separated from the Company on June 30, 2018. Amounts that would have been potentially payable under the Non-Equity Incentive Plan were forfeited. Mr. Painter received cash payments under his Separation Agreement and equity vested upon termination under the Executive Separation Program as outlined on pages 45-48.

The Fiscal 2018 Grants of Plan-Based Awards Table reports the dollar value of cash (non-equity) incentive awards and the number and value of equity awards granted to each executive officer during fiscal 2018. With regard to cash incentives, this table reports the range of potential value that could have been obtained by the executive officer; whereas the Summary Compensation Table reports the actual value realized for fiscal 2018. Equity amounts represent the grant date values of the awards determined under FASB ASC Topic 718 for purposes of financial statement reporting, which are based on probable outcomes.

### Non-Equity Incentive Plan Awards — Annual Incentive Plan

Annual Incentive Plan awards are based on performance for the fiscal year. The Committee approves performance measures and payout schedules prior to or at the beginning of the fiscal year. Following the end of the fiscal year, the Committee determines the range of actual amounts that can be paid out under a formula which reflects the Company's performance against the approved performance measures. Individual awards are determined by the Committee within the range, based on individual performance. There is no minimum bonus under the terms of the Plan, so the threshold amount is shown as \$0. The maximum bonus payable under this Plan is capped at \$4,000,000. For more information on fiscal 2018 targets and the award determination, see pages 25-26.

### Equity Incentive Plan Awards — Performance Shares

The Equity Incentive Plan Awards reflected in the table are performance shares. Performance shares are deferred stock units whose payout is conditioned on the Company's TSR percentile relative to the Peer Reference Group. Deferred stock units are an award type provided under the Company's Long-Term Incentive Plan that entitle the holder to the value of one share of Company stock and accumulated dividend equivalents upon satisfaction of performance and/or time-based vesting conditions. Dividend equivalents are paid in cash and equal the dividends that would have accrued on a share of Company stock from the grant date of a deferred stock unit until it is paid out. Dividend equivalents are not paid until the award is vested. No dividend equivalents are paid on units that are forfeited.

## Executive Compensation

The performance shares reflected in the table have a three-year performance cycle which will be completed at the end of fiscal 2020. The number of performance shares that will be paid out is based on a schedule tied to the Company's TSR percentile as described on pages 27-28. Performance shares are generally forfeited if the executive officer voluntarily terminates employment during the performance period; however, if an executive officer terminates due to death, disability or retirement one year or more after the grant date, he will receive a pro-rata portion of any performance share payout upon completion of the performance period. Upon a termination covered by the Executive Separation Program described on pages 45-48, the terms of that Program regarding treatment of equity compensation will apply.

## Other Stock Awards — RSUs

The Other Stock Awards reflected in the table are RSUs, which are deferred stock units that have time-based vesting conditions. Most of the RSUs granted in fiscal 2018 are subject to a four-year vesting period. If an executive officer's employment terminates due to death, disability or retirement one year or more after the grant date, the units will vest. Pursuant to his Employment Agreement, Mr. Ghasemi's RSUs will not be forfeited and will continue to vest if he is terminated at any time due to death or disability, voluntarily for Good Reason, by the Company without Cause or at the conclusion of his Employment Agreement. (See page 45 for the definitions of "Cause" and "Good Reason" under the Employment Agreement.) If another executive officer's employment termination is covered by the Executive Separation Program described on pages 45-48, the terms of that Program regarding treatment of equity compensation will apply.

## Outstanding Equity Awards at 2018 Fiscal Year-End Table

Officer	Option Awards <sup>(1)</sup>					Stock Awards			
	Option Grant Date	Number of Securities Underlying Unexercised Options (#)		Option Exercise Price (\$)	Option Expiration Date	Number of Shares of Units of Stock Held that have not Vested (#) <sup>(2)</sup>	Market Value of Shares or Units of Stock held that have not Vested (\$) <sup>(3)</sup>	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that have not Vested (#) <sup>(4)</sup>	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$) <sup>(3)</sup>
Seifi Ghasemi						77,440	12,936,352	103,968	17,367,854
	7/1/2014	165,235	0	120.69	6/28/2024				
	12/1/2014	43,358	0	134.54	12/1/2024				
M. Scott Crocco						14,284	2,386,142	19,939	3,330,810
	10/1/2008	7,954	0	62.47	10/1/2018				
	12/1/2009	4,443	0	78.06	12/1/2019				
	12/1/2010	4,314	0	80.67	12/1/2020				
	12/1/2011	6,803	0	77.16	12/1/2021				
	12/3/2012	14,271	0	76.17	12/3/2022				
	12/2/2013	18,082	0	100.55	12/2/2023				
	12/1/2014	7,432	0	134.54	12/1/2024				
Sean D. Major						5,989	1,000,462	7,964	1,330,386
Samir Serhan						8,515	1,422,431	12,231	2,043,189
Corning F. Painter						0	—	5,824	972,899
	12/1/2011	14,849	0	77.16	12/1/2021				
	12/3/2012	17,125	0	76.17	12/3/2022				
	12/2/2013	18,082	0	100.55	12/2/2023				
	12/1/2014	8,051	0	134.54	12/1/2024				

<sup>(1)</sup> Grant dates for all stock options are shown in the first column. All stock options have an exercise price equal to the closing market value on the grant date and became exercisable in three consecutive, equal annual installments on the first, second and third anniversary of the grant date. They generally remain exercisable until 10 years after the grant date; however, except as described below, exercisable options generally expire 90 days after voluntary termination of employment and unexercisable options are forfeited upon voluntary termination. Options granted more than one year prior to an executive officer's termination due to death, disability or retirement continue to become and remain exercisable for their full term. If an executive officer's termination is covered by the Executive Separation Program described on pages 45-48, the terms of that Program regarding treatment of equity compensation will apply. Mr. Ghasemi's Employment Agreement provides that, upon his death, disability, involuntary termination without Cause, voluntary termination for Good Reason or the conclusion of the term of his Employment Agreement, his options will not terminate but will continue to become and be exercisable through the end of their term. (See page 45 for the definition of "Cause" and "Good Reason" under the Employment Agreement.) Stock options are subject to special vesting rules upon a change in control of the Company as described on pages 48-49.

<sup>(2)</sup> This column reflects unvested restricted stock and deferred stock units which, upon vesting, entitle the holder to a share of Company Stock and dividend equivalents accumulated since the date of grant.

### RESTRICTED STOCK

Shares of restricted stock are shares of Company stock that are issued in the executive officer's name subject to restrictions on transferability. The shares may be voted but the executive officer may not sell or transfer restricted stock during the vesting period. Dividends are paid on the restricted stock during the vesting period. Generally, if an executive officer's employment terminates during the vesting period, the stock will be forfeited. However, if an executive officer's employment terminates due to death, disability or retirement one year or more after the grant date, the stock will vest. Pursuant to his Employment Agreement, Mr. Ghasemi's shares will not be forfeited and will continue to vest if he is terminated at any time due to death or disability, involuntary termination without Cause, voluntary termination for Good Reason or at the conclusion of the Employment Agreement.

## Executive Compensation

(See page 46 for the definition of “Cause” and “Good Reason” under the Employment Agreement.) If another executive officer’s employment termination is covered by the Executive Separation Program described on pages 45-48, the terms of that Program regarding treatment of equity compensation will apply. Shares of restricted stock granted in fiscal 2015 vested on the earlier of December 1, 2018 or the executive officer’s termination of employment due to death, disability or retirement. Shares of restricted stock granted in fiscal 2015 are as follows: Mr. Ghasemi 12,145 and Mr. Crocco 2,082. Shares of restricted stock granted in fiscal 2016 vest on the earlier of December 1, 2019 or the executive officer’s termination of employment due to death, disability or retirement. Shares of restricted stock granted in fiscal 2016 are as follows: Mr. Ghasemi 20,125 and Mr. Crocco 3,738. Restricted stock is subject to special vesting rules for terminations upon a change in control of the Company as described on pages 48-49.

### DEFERRED STOCK UNITS

The Company grants two types of deferred stock units; restricted stock units and performance shares. Each deferred stock unit is the equivalent in value to one share of common stock and, subject to satisfaction of any applicable performance or time-based conditions, entitles the executive officer to receive from the Company at the end of the deferral period one share of common stock for each restricted stock unit or earned performance share. Restricted stock units typically have a four-year vesting period. This column reflects four-year restricted stock units granted to executive officers on December 1, 2016 and December 1, 2017 and special recruiting and retention grants of restricted stock units. All deferred stock units, including the performance shares described in footnote 4 below, are subject to special vesting rules for terminations covered by the Executive Separation Program described on pages 45-48 or upon a change in control as described on pages 48-49.

(i) Unvested restricted stock units granted in fiscal 2017 and fiscal 2018 are as follows:

Officer	FY17	FY18	Total
Seifi Ghasemi	24,178	20,992	45,170
M. Scott Crocco	4,266	4,198	8,464
Sean D. Major	0	2,469	2,469
Samir Serhan	2,845	2,469	5,314
Corning F. Painter*	0	0	0

\* Paid at separation.

(ii) This column also shows special recruiting grants and are as follows:

Officer	Number of Units
Sean D. Major*	3,520
Dr. Samir Serhan**	3,201

\* Two-year vesting restricted stock units granted May 1, 2017. These will vest on May 1, 2019.

\*\* Three-year vesting restricted stock units granted December 1, 2016. These will vest on December 1, 2019.

(3) These amounts are based on the 2018 fiscal year-end NYSE closing market price of \$167.05.

(4) This column reflects deferred stock units granted as performance shares granted in fiscal 2017 and fiscal 2018. These shares are conditioned upon performance during three-year cycles ending on September 30, 2019 and September 30, 2020, respectively. These awards will be paid out following the end of the relevant performance period as indicated in the chart below. The dollar values and share counts for fiscal year 2017 awards are shown in the table at the target payout level and fiscal year 2018 awards are shown at 215% (maximum payout including full positive discretion) based on Company’s current total shareholder return percentile rank compared to the Peer Reference Group for the respective performance periods. The fiscal 2016 performance share payout was 0% (zero payout) as described on page 28 and, accordingly, the amounts reported in this column and in the table below do not include performance shares granted in 2016 or, with respect to Dr. Serhan, when he joined the Company in fiscal 2017.

Officer	Fiscal 2017 and 2018 Unearned Performance Shares End of Performance Period	
	09/30/2019	09/30/2020
Seifi Ghasemi	36,267	67,701
M. Scott Crocco	6,400	13,539
Sean D. Major	0	7,964
Samir Serhan	4,267	7,964
Corning F. Painter*	3,235	2,589

\* Prorated per Separation Agreement terms

## Fiscal 2018 Option Exercises and Stock Vested Table

Officer	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#) <sup>(1)</sup>	Value Realized on Vesting (\$) <sup>(2)</sup>
Seifi Ghasemi	0	—	28,617	4,641,964
M. Scott Crocco	0	—	7,227	1,172,733
Sean D. Major	0	—	0	—
Samir Serhan	0	—	0	—
Corning F. Painter	10,946	971,355	17,794	2,818,544

<sup>(1)</sup> The shares in this column include restricted stock granted in fiscal year 2014 which vested in December 2017; performance shares granted in fiscal year 2015 which vested in December 2017; and for Mr. Painter, it also includes fiscal year 2015 and fiscal year 2016 restricted shares and fiscal year 2017 restricted stock units and pro-rated fiscal year 2018 restricted stock units which vested on an accelerated basis at separation, as described on page 46.

<sup>(2)</sup> The following dividend equivalents were paid on the performance share awards and the restricted stock units but are not included in the value realized on vesting:

Officer	Dividend Equivalents Paid (\$)
Seifi Ghasemi	283,881
M. Scott Crocco	48,668
Corning F. Painter	74,979

## Fiscal 2018 Pension Benefits Table

Officer	Plan Name	Number of Years Credited Service (#)	Present Value of Accumulated Benefit (\$)
M. Scott Crocco	Air Products and Chemicals, Inc. Pension Plan for Salaried Employees	28	1,121,762
	Air Products and Chemicals, Inc. Supplementary Pension Plan	28	5,808,523
Corning F. Painter	Air Products and Chemicals, Inc. Pension Plan for Salaried Employees	34	1,910,099
	Air Products and Chemicals, Inc. Supplementary Pension Plan	34	10,335,846

The table above illustrates the actuarial present value of accrued pension benefits for each of the executive officers who participated in the Company's defined benefit plans as of September 30, 2018. Actuarial present values are complex calculations that rely on many assumptions. The Company has calculated the amounts shown above generally using the same assumptions used in determining the pension cost recognized in its financial statements, which are described in Note 16, Retirement Benefits, to the financial statements and under "Critical Accounting Policies and Estimates" in Management's Discussion and Analysis of Financial Condition and Results of Operations, both of which are included in the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2018, filed with the SEC on November 20, 2018. However, in accordance with SEC requirements, the Company has calculated these values assuming payment begins the earliest date the executive officer can receive an unreduced early retirement benefit. The Company has also used actual fiscal 2018 annual incentive awards in the calculation; whereas the value in the financial statements is based on estimated annual incentive awards.



## Executive Compensation

The Salaried Pension Plan is a funded, tax-qualified defined benefit plan funded entirely by the Company. Benefits under the Salaried Pension Plan are paid after retirement in the form of a monthly annuity. Participants may select from monthly payments for their lifetime or smaller monthly payments for their life and the life of a beneficiary.

The amount of the benefit under the Salaried Pension Plan is based on the following formula:

1.184% x Years of Service x Average Monthly Compensation (Up to the Average Social Security Maximum Taxable Wage Base)

Plus

1.5% x Years of Service x Average Monthly Compensation (In excess of the Average Social Security Maximum Taxable Wage Base)

“Average Monthly Compensation” is the average monthly compensation for the 36 months (or 3 years) during which the participant’s compensation was the highest during the 10 years preceding retirement; generally this is the participant’s average base salary for the three years preceding retirement. The “Average Social Security Maximum Taxable Wage Base” is the average of the U.S. Social Security Wage Bases over a 35-year period.

Benefits under the Salaried Pension Plan become vested after a participant has completed five years of service. The Normal Retirement Age under the Salaried Pension Plan is age 65. A participant with at least five years of service may retire after attaining age 55 and receive a benefit reduced by 3% per year for the number of years prior to his attaining age 62. Benefits accrued as of January 1, 2005 are not reduced upon retirement at age 55 or later if the sum of the participants age and credited service under the Plan equals 80 or more at the time of retirement.

Under U.S. federal tax laws, benefits payable under the Salaried Pension Plan, and compensation which can be considered in calculating the benefits, are limited. The Supplementary Pension Plan (“Supplementary Plan”) is a nonqualified, unfunded pension plan that provides benefits that cannot be provided under the Salaried Pension Plan due to these limits. Benefits under the Supplementary Plan are calculated using the same formula as the Salaried Pension Plan, but there is no limit on the amount of base salary that can be covered by the pension formula, and Average Monthly Compensation under the Supplementary Plan also includes Annual Incentive Plan awards.

Supplementary Plan benefits are subject to the same vesting and early retirement terms as the Salaried Pension Plan. Supplementary Plan benefits are generally payable following retirement in one of the annuity forms available under the Salaried Pension Plan or, at the election of the participant, in a lump sum. In the case of the executive officers and certain other executives, distribution of benefits under the Supplementary Plan, whether in annuity or lump sum form, is delayed for six months after termination of employment to comply with U.S. federal tax laws.

## Fiscal 2018 Nonqualified Deferred Compensation Table

Amounts shown in this table are provided under the Company’s nonqualified Deferred Compensation Plan.

Officer	Executive Contributions in Last FY <sup>(1)</sup> (\$)	Registrant Contributions in Last FY <sup>(2)</sup> (\$)	Aggregate Earnings in Last FY <sup>(3)</sup> (\$)	Aggregate Withdrawals/Distributions (\$)	Aggregate Balance at Last FYE <sup>(4)</sup> (\$)
Seifi Ghasemi	5,538	177,886	36,361	—	975,536
M. Scott Crocco	87,231	4,846	33,665	—	897,439
Sean D. Major	16,923	29,519	1,186	—	47,628
Samir Serhan	2,538	41,566	2,557	—	79,566
Corning F. Painter	150,000	—	35,629	—	627,705

<sup>(1)</sup> All amounts reported in this column were voluntary deferrals of base salary by the executive officers. These amounts are also reported in the Summary Compensation Table.

- (2) Amounts reported in this column include Company matching credits based on each executive officer's voluntary deferrals of base salary. In the case of Mr. Ghasemi, Mr. Major and Dr. Serhan, a Company contribution credit of a percentage of their base salaries in excess of tax law limits on Retirement Savings Plan contributions and their Annual Incentive Plan awards is also included because they receive their primary retirement benefit under the Company's defined contribution Retirement Savings Plan (the "RSP") rather than the Salaried Pension Plan and Supplementary Plan. Amounts reported in this column are also reported in the Summary Compensation Table.
- (3) A portion of the earnings reflected in this column are reported in the Summary Compensation Table as above-market interest, as described in footnote 5 to such table.
- (4) The following portion of these accumulated balances has been previously reported as compensation in the Summary Compensation Table of the Company's proxy statements for prior years:

Officer	Amount Previously Reported (\$)
Seifi Ghasemi	723,898
M. Scott Crocco	446,732
Sean D. Major	—
Samir Serhan	32,648
Corning F. Painter	227,363

The Company provides the tax-qualified RSP to all U.S.-based salaried and certain hourly employees of the Company. Currently, U.S. tax laws limit the amounts that may be contributed to tax-qualified savings plans and the amount of compensation that can be taken into account in computing benefits under the RSP. The Deferred Compensation Plan was amended and restated effective January 1, 2018 to "unlink" the RSP from the Deferred Compensation Plan. Prior to January 1, 2018, elective deferrals to the RSP in excess of the U.S. tax law limits would automatically be deferred into the Deferred Compensation Plan. Effective January 1, 2018, once a participant reaches the U.S. tax law limits in the RSP for elective deferrals such deferrals cease and are not contributed to the Deferred Compensation Plan; rather, Deferred Compensation Plan participants may make a separate deferral election prior to the calendar year to defer amounts of base salary into the Deferred Compensation Plan. The Deferred Compensation Plan is intended to permit participants to defer an amount of base salary and to make up, out of general assets of the Company, an amount substantially equal to certain benefits an employee did not receive under the RSP due to these limits. U.S. employees who participate in the Annual Incentive Plan, including all executive officers, are eligible to participate in the Deferred Compensation Plan. Participants can elect to defer up to 50% of base salary on a before-tax basis and up to 75% of Annual Incentive Plan awards.

The Deferred Compensation Plan provides for a Company matching credit for participants in the RSP, including all executive officers, whose Company matching contribution in the RSP is limited by U.S. tax law limitations. The Deferred Compensation Plan also provides for a Company core credit on base salary when such core contribution in the RSP is limited by U.S. tax law limitations and on Annual Incentive Plan awards for employees who receive their primary retirement benefit under the RSP rather than the Salaried Pension Plan, including Mr. Ghasemi, Mr. Major and Dr. Serhan.

Participants may elect to have their Deferred Compensation Plan balances earn interest at a corporate bond rate or be deemed to be invested in Company stock and earn dividend equivalents and market appreciation on the stock. If a participant chooses the Company stock alternative, his or her account balance will be distributed in shares of Company stock, except for dividend equivalents.

Participants can elect to receive payments of their Deferred Compensation Plan balances in service, or in lump sum or in one to 10 equal annual installments following termination from service. The executive officers and certain other executives cannot commence distribution until six months following termination to comply with tax laws.

## Potential Payments Upon Termination

Potential payments to executive officers upon termination vary depending on the exact nature of the termination and, generally, whether the executive officer is retirement eligible at the time of the termination. Retirement eligibility for U.S. employees, including the executive officers except Mr. Ghasemi, generally occurs upon the attainment of age 55 after completing at least five years of service to the Company. Mr. Ghasemi's Employment Agreement provides that he is eligible for retirement treatment under all equity, equity derivative and incentive awards after three years of employment with the Company. Accordingly, he became eligible for retirement on July 1, 2017. The following discussion explains potential payments to the executive officers under various termination scenarios.

### Voluntary Termination Other Than Retirement

A voluntary termination by Mr. Ghasemi would be a retirement, as discussed below. If Mr. Crocco, Mr. Major or Dr. Serhan voluntarily terminated employment with the Company prior to retirement eligibility, like all salaried employees of the Company, he would receive any unpaid salary and accrued vacation, vested RSP balances and nonqualified deferred compensation shown in the table on page 42 and earnings thereon. Upon attainment of age 55, Mr. Crocco could commence accrued benefits under the qualified, and will commence accrued benefits under the nonqualified, pension plans described on pages 41-42 on the same terms as all other participants under these plans who were eligible for retirement at the time of termination.

Executive officers and other eligible employees generally must remain employed until the last day of the fiscal year to receive an Annual Incentive Plan award for the fiscal year. Therefore, if an executive officer voluntarily terminated, he would forfeit any Annual Incentive Plan award for the fiscal year of termination, unless he terminated on the last day of such fiscal year. If he voluntarily terminated on September 30, 2018, he would be eligible for a fiscal 2018 Annual Incentive Plan award in an amount, if any, determined by the Committee in its discretion.

Most outstanding awards under the Long-Term Incentive Plan would be forfeited upon a voluntary termination prior to retirement eligibility, including all unexercisable stock options, all restricted stock, all RSUs and all performance shares, whether or not earned. Exercisable stock options would continue to be exercisable for 90 days following termination and then, if unexercised, would be forfeited.

### Retirement

Upon retirement, executive officers are entitled to unpaid salary and accrued vacation, accrued qualified and nonqualified pension benefits, vested RSP balances and deferred compensation described above, and retiree medical benefits, if they are eligible, on the same terms as for all salaried employees meeting age and service conditions. Retiring executive officers may also receive, in the discretion of the Committee, an Annual Incentive Plan award for the year of retirement. In addition, like all Long-Term Incentive Plan participants, they receive the following treatment of their outstanding long-term incentive awards:

- all outstanding stock options which were granted one year or more prior to retirement will continue to be and become exercisable in accordance with the normal schedule as if the executive officer remained employed, and will be exercisable for the normal term;
- restricted stock and RSUs awarded at least one year prior to retirement will vest immediately upon retirement and restricted stock and RSUs granted less than one year prior to retirement are forfeited; and
- all earned performance shares and dividend equivalents thereon will be paid on the normal schedule. A pro-rata portion of unearned performance shares awarded at least one year prior to retirement and associated dividend equivalents will be paid in accordance with the normal schedule and at the normal payout level if performance thresholds are met. Performance shares awarded less than one year prior to retirement are forfeited.

The table below shows the value of Mr. Ghasemi's outstanding long-term incentive awards that would have vested had he retired as of September 30, 2018, and the value of awards that would have been forfeited. Amounts are based on the closing price of a share of Company stock as of September 30, 2018. Other executive officers were not eligible for retirement on September 30, 2018; so no amounts are shown for them.

Officer	Unvested Stock Options (\$)	Restricted Stock (\$)	Restricted Stock Units (\$)	Performance Shares <sup>(1)</sup> (\$)	Value of Awards Forfeited (\$)
Seifi Ghasemi	—	5,390,871	4,204,796	4,204,796	11,034,664

<sup>(1)</sup> Performance shares are shown at the target payout level. Amounts include accumulated dividend equivalents. The 2018 grant and a prorated portion of the fiscal year 2017 grant would be forfeited.

## Executive Separation Program

The Committee established the Executive Separation Program (the "Separation Program") to facilitate changes in the leadership team and recruiting of senior executives. All the executive officers are covered by this Program. An executive officer becomes eligible for program benefits upon involuntary termination of employment other than for "Cause" or upon voluntary termination for "Good Reason." A termination for "Cause" occurs upon the executive officer's failure to substantially perform his duties after demand therefor, willful misconduct, certain illegal acts, insubordination, dishonesty, or violation of the Company's Code of Conduct. "Good Reason" includes:

- a material adverse change in the executive officer's position, material diminution of his duties or authority or assignment to him of duties or responsibilities inconsistent with his status;
- a decrease in the executive officer's salary or a material reduction in benefits or annual incentive compensation opportunities if not similarly applied to other highly compensated employees; or
- a relocation of the executive officer's principal workplace more than 50 miles from the existing location.

Benefits under the Separation Program are contingent upon the executive officer's continuing to perform the duties typically related to his or her position (or such other position as the Board reasonably requests) until termination, and assistance in the identification, recruitment and/or transitioning of his or her successor. The executive officer also is required to sign a general release of claims against the Company and a two-year noncompetition, nonsolicitation and nondisparagement agreement. If all these requirements are met, the executive officer is entitled to cash benefits as follows:

- a cash severance payment of one times the executive officer's annual base salary and the executive officer's target bonus for the fiscal year in which the termination of employment occurs, provided that in the case of Mr. Ghasemi, the cash severance will be two times such amount and, if the termination occurs after September 30, 2020, the payment will be prorated based on the remaining term of his amended and restated employment agreement;
- a bonus for the year of termination equal to a pro-rata portion of the executive officer's target bonus multiplied by the Annual Incentive Plan payout factor for the fiscal year in which the termination of employment occurs;
- outplacement assistance;
- in the case of Mr. Crocco, a cash payment equal to the actuarial equivalent of pension benefits that would have accrued based on one additional year of service and a payment equal to the value of the early retirement subsidy that would have been provided under the pension plans on the accumulated benefit if age and service conditions were met, calculated with an additional year of service; and
- for the other executive officers who receive their primary retirement benefit under the RSP, a cash payment equal to the additional (nonmatching) contributions and credits each would have received under the RSP and the Deferred Compensation Plan, respectively, had he remained employed an additional two years for Mr. Ghasemi and an additional year for Mr. Major and Dr. Serhan, assuming base salary remained the same and the Annual Incentive Plan award was the higher of his most recent award or the average of the last three awards.

## Executive Compensation

Noncash benefits are also provided or maintained under the Separation Program as follows:

- The Company pays the cost of continued coverage under the Company's medical and dental plans pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") for executive officers and their dependents for one year following termination. (Executive officers eligible for retiree medical participate in the medical plan on the same basis as other eligible retirees at no incremental cost to the Company.)
- Nonretirement eligible executive officers forfeit unexercisable stock options. Their exercisable options remain in effect for the normal term. Retirement provisions described above apply to the stock options of retirement eligible executive officers.
- A pro-rata portion of four-year vesting restricted stock, RSUs and recruiting and retention grants of RSUs vest. The remaining RSUs are forfeited. However, retirement provisions described above apply to outstanding restricted stock and RSUs held by retirement eligible executive officers if more favorable.
- A pro-rata portion of unearned performance shares based on actual performance at the end of the performance period vest and are paid at the end of the performance period and the remainder are forfeited. The unforfeited shares are paid in accordance with the normal schedule and at the normal payout level if performance thresholds are met.

## Mr. Ghasemi's Employment Agreement

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In addition to the Separation Program, Mr. Ghasemi's Employment Agreement provides that, upon his termination by the Company other than for Cause or his voluntary termination for Good Reason, his long-term incentive awards will continue to vest as if he remained employed. For purposes of the Employment Agreement, "Cause" is Mr. Ghasemi's willful failure to substantially perform his duties after a demand for substantial performance is delivered, willful misconduct that has caused or would reasonably be expected to result in a material injury to the Company, criminal conviction of or a plea of nolo contendere to a crime that constitutes a felony, repeated acts of insubordination, an act of dishonesty inconsistent with his position or material violation of the Company's Code of Conduct. Mr. Ghasemi has the right to resign for "Good Reason" under the Agreement if there is a material adverse change in his position or office; a decrease in his salary, benefits or incentive compensation if not applied to other highly compensated employees; or a relocation of his principal workplace more than 50 miles from the existing location.

## Mr. Painter's Separation Agreement

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The Company and Mr. Painter entered into a Separation Agreement (the "Separation Agreement") in connection with Mr. Painter's separation from the Company in fiscal 2018. Under the Separation Agreement, Mr. Painter received a lump sum cash severance payment of \$2,582,005. In addition, under the Separation Agreement Mr. Painter's outstanding stock options will remain exercisable for the remainder of his term, unearned performance shares will remain outstanding and be paid out based on the Company's performance for the applicable award cycle, calculated on a pro rata basis to account for Mr. Painter's service to the Company during the applicable performance period, restrictions on restricted shares lapsed and unvested restricted stock units granted in fiscal 2017 are retained and will vest in accordance with their original terms and unvested restricted stock units granted in fiscal 2018 became vested on a prorated basis. The Separation Agreement also provided Mr. Painter and his eligible dependents with subsidized continuation coverage under the Company's group medical and dental plans, outplacement assistance for up to 12 months and attorneys' fees incurred in connection with the Separation Agreement. In addition, both Mr. Painter and the Company executed a release of claims pursuant to the terms of the Separation Agreement, and Mr. Painter agreed to comply with certain confidentiality, non-solicitation and non-disparagement covenants, while the Company waived Mr. Painter's compliance with non-competition covenants.

## Estimated Payments on Severance As of September 30, 2018

The table below shows estimated cash payments that would have been made to each executive officer upon an involuntary termination on September 30, 2018 covered under the Executive Separation Program and the Employment Agreement in the case of Mr. Ghasemi, his Employment Agreement, and the estimated value of long-term incentive awards that would have vested upon termination under the Program.

Officer	Severance Benefit (\$)	Pro-rata Bonus (\$)	Retirement Plan Payment <sup>(1)</sup> (\$)	Benefits <sup>(2)</sup> (\$)	Long-Term Incentive Plan			
					Stock Options <sup>(3)</sup> (\$)	Restricted Stock (\$)	Restricted Stock Units <sup>(4)</sup> (\$)	Performance Shares <sup>(5)</sup> (\$)
Seifi Ghasemi <sup>(6)</sup>	6,750,000	2,571,750	370,080	25,852	—	—	3,572,838	7,461,826
M. Scott Crocco	1,110,000	647,700	2,378,166	30,860	4,952,393	775,613	488,892	1,099,266
Sean D. Major	962,500	523,875	33,750	32,392	—	—	510,432	210,140
Samir Serhan	1,017,500	593,725	50,028	32,392	—	—	654,515	1,259,155
Corning F. Painter <sup>(7)</sup>	1,825,020	756,985	—	15,709	4,516,882	931,852	669,870	1,616,838

<sup>(1)</sup> Includes payment in lieu of Company contributions and credits under the RSP and Deferred Compensation Plan for Mr. Ghasemi, Mr. Major and Dr. Serhan and the pension plan make-up payment for Mr. Crocco.

<sup>(2)</sup> Includes the value of outplacement benefits estimated based on current arrangements for these services and the cost of COBRA payments for the Company's medical plan and dental plans.

<sup>(3)</sup> Stock options are shown at their intrinsic value based on the September 28, 2018 closing price of \$167.05, except for Mr. Painter where the close price of \$155.49 on July 2, 2018 was used.

<sup>(4)</sup> These amounts reflect the value of RSUs such as four-year RSUs and special recruiting and retention grants, and dividend equivalents thereon.

<sup>(5)</sup> Performance shares are reflected at target payout level and amounts include accumulated dividend equivalents.

<sup>(6)</sup> Values of Mr. Ghasemi's long-term incentive awards that would have vested upon his voluntary termination due to his retirement eligibility are not shown.

<sup>(7)</sup> Mr. Painter separated from the Company on June 30, 2018. The amounts reported in this table for Mr. Painter reflect the terms of the Separation Agreement, dated as of May 16, 2018, between the Company and Mr. Painter. Mr. Painter did not earn the cash bonus payment of \$1,000,000 disclosed in the Company's Current Report on Form 8-K filed May 17, 2018; that payment was contingent upon completion of a business development project before December 31, 2019 which was not attained.

## Termination for Cause

Upon involuntary termination for Cause, executive officers receive only unpaid salary and accrued vacation, qualified and nonqualified pension and deferred compensation.

## Termination Due to Death or Disability

Upon termination due to death or disability of an executive officer, in addition to insurance, continuation of medical benefits and other benefits provided to all salaried employees and their families to help with these circumstances, the Long-Term Incentive Plan has provisions that provide continued vesting or accelerated payout of equity awards as follows:

- All stock options that have been outstanding for at least a year at the time of termination continue to be and become exercisable on the normal schedule as if the employee had remained active. All other stock options are forfeited.
- All restrictions on restricted stock outstanding for at least one year are removed. All other restricted stock is forfeited.
- All earned but deferred performance shares, all career-vesting deferred stock units and retention and recruiting grants of deferred stock units outstanding more than one year are paid out.
- A prorated portion of unearned performance shares outstanding for at least one year continues to earn out and be payable as if the employee had remained active. All other unearned performance shares are forfeited.

## Executive Compensation

- Executive officers or their beneficiaries may also receive an Annual Incentive Plan award at the discretion of the Committee.

In addition, Mr. Ghasemi's Employment Agreement provides that upon his termination of employment due to death or disability, his Long-Term Incentive Plan awards will continue to vest as if he remained employed and he will receive a prorated Annual Incentive Award.

## Change in Control Arrangements

The Company provides individual change in control severance agreements for all of the executive officers. For purposes of the agreements, a change in control occurs upon a 30% stock acquisition by a person not controlled by the Company, a greater than 50% change in membership on the Board during any two-year period unless approved by two-thirds of directors still in office who were directors at the beginning of the period; consummation of a business reorganization, merger, consolidation or other corporate transaction that results in the Company's shareholders owning less than 50% of the surviving entity; or shareholder approval of a plan of liquidation or sale of substantially all of the Company's assets.

The severance agreements give each executive officer specific rights and certain benefits if, within two years after a change in control, his or her employment is terminated by the Company without Cause (as defined below) or he or she terminates employment for Good Reason (as defined below). In such circumstances the executive officer would be entitled to:

- a cash severance payment equal to two (three for Mr. Ghasemi) times the sum of his annual base salary and target bonus under the Annual Incentive Plan;
- a cash payment of a pro-rata target bonus for the year;
- for each of Mr. Crocco and Mr. Painter, a cash payment equal to the additional actuarial present value of the pension benefits he would have been entitled to receive under the Company's pension plans had he accumulated two additional years of credited service after termination and a cash payment equal to the actuarial present value of the early retirement subsidy on the accumulated benefit, calculated with an additional two years of credited service;
- a cash payment equal to two (three for Mr. Ghasemi) times the value for the most recent fiscal year of the Company's matching contributions and/or credits for the executive officer under the RSP and the Deferred Compensation Plan;
- for each of Mr. Ghasemi, Mr. Major and Dr. Serhan, a cash payment equal to the additional primary retirement benefit contributions and credits he would have received under the RSP and the Deferred Compensation Plan, respectively, had he remained employed for an additional three years in the case of Mr. Ghasemi and two years in the case of Mr. Major and Dr. Serhan, at the same base salary and the higher of the executive officer's most recent Annual Incentive Plan award or the average such award for the three full fiscal years preceding the Change in Control;
- continuation of medical, dental, health and accident disability and life insurance benefits for a period of up to two years (three years in the case of Mr. Ghasemi), and provision of outplacement services and certain legal fees; and
- indemnification if he becomes involved in litigation because he is a party to the agreement.

The payments referenced in the first, third, fourth and fifth bullets above will be reduced each month on a pro-rated basis when the named executive officer, other than Mr. Ghasemi, is between ages 63 and 65.

A termination for "Cause" occurs under the agreements upon the executive officer's continued willful failure to perform his duties or willful misconduct. "Good Reason" includes:

- a material adverse change in the executive officer's position;
- a decrease in the executive officer's salary, benefits or incentive compensation if not applied to other highly compensated employees; or
- relocation of the executive officer's principal workplace more than 50 miles from the existing location.



The table below shows amounts that would be payable under the change in control severance agreements if the executive officer had been terminated on September 30, 2018 following a change in control.

Officer	Severance Payment (\$)	Pro-rata Bonus (\$)	Matching Contribution Payment (\$)	Retirement Plan Payment <sup>(1)</sup> (\$)	Outplacement/Financial (\$)	Benefits <sup>(2)</sup> (\$)
Seifi Ghasemi	10,125,000	2,025,000	38,769	555,120	14,500	35,111
M. Scott Crocco	2,220,000	510,000	15,231	2,683,994	14,500	32,488
Sean D. Major	1,925,000	412,500	20,308	67,500	14,500	34,922
Samir Serhan	2,035,000	467,500	20,308	100,056	14,500	34,922
Corning F. Painter <sup>(3)</sup>	—	—	—	—	—	—

<sup>(1)</sup> Includes payments in lieu of Company core contributions and credits under the RSP and Deferred Compensation Plan for Mr. Ghasemi, Mr. Major and Dr. Serhan and, for Mr. Crocco, the pension payment.

<sup>(2)</sup> Includes continuation of medical, dental, disability and life insurance benefits.

<sup>(3)</sup> Mr. Painter separated from the Company on June 30, 2018.

In addition to the change in control severance agreements, the Company's Long-Term Incentive Plan provides change in control protection for all participants. Awards granted on or after October 1, 2014 will not automatically vest on an accelerated basis as a result of a change in control if they are replaced by the surviving entity. For these provisions to apply; the replacement awards must be issued by a publicly listed company and preserve the value of, and be on terms as favorable as the existing award; performance-conditioned awards must be replaced by time-based vesting awards; and the replacement awards must provide that if the participant is terminated without Cause or voluntarily terminates for Good Reason within 24 months following the change in control, the award will vest immediately upon termination. The Long-Term Incentive Plan also provides that, pursuant to an agreement associated with a change in control or in the discretion of the Board or an appropriate committee thereof, awards may be settled for cash at the change in control price.

Long-Term Incentive Plan awards granted in fiscal 2015 or later would not automatically vest upon a change in control but would vest upon a termination of the executive officer by the Company without Cause or a voluntary termination by the executive officer for Good Reason within 24 months of the change in control. The table below shows the estimated value of long-term incentive awards that would have vested upon an eligible termination on September 30, 2018 following a change in control. These acceleration provisions apply to all Long-Term Incentive Plan participants. In the case of Mr. Ghasemi, who was retirement eligible on September 30, 2018, most of these amounts would have vested on voluntary termination, but payment or lapse of restrictions could be accelerated upon a change in control. For the other executive officers, most of the amounts shown would become vested or payable if his or her active employment continued without a change in control, but payment, lapse of restrictions would be accelerated upon a change in control.

Officer	Estimated Value (\$)
Seifi Ghasemi	28,545,562
M. Scott Crocco	8,480,289
Sean D. Major	1,227,379
Samir Serhan	2,730,839
Corning F. Painter	—

Finally, accrued benefits under the nonqualified pension and deferred compensation plans (described on pages 41-43) would be paid out upon a change in control.



# CEO Pay Ratio

As required by Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and SEC regulation, we are providing the following information about the ratio of the annual total compensation of the median Air Products employee and the annual total compensation of our CEO, Seifi Ghasemi as of our fiscal year-end, September 30, 2018.

The pay ratio is a reasonable estimate calculated in a manner consistent with SEC rules, using methodologies, reasonable assumptions and adjustments as described below.

- The median employee annual total compensation was \$50,802.
- The annual total compensation of our CEO, as reported in the Summary Compensation Table of this Proxy Statement was \$13,941,507.
- Based on this information, the estimated ratio of annual total compensation of Mr. Ghasemi, our CEO, to the annual total compensation of our median employee was 274 to 1.
- Our total employee population as of fiscal year-end consisted of approximately 16,300 employees, including 4,500 US employees and 11,800 non-US employees. We employed the *de minimis* exemption to exclude 281 employees (less than 2% of the global workforce) in the following countries: Norway (54), Oman (60), Qatar (1), Russia (89), Saudi Arabia (19), Switzerland (2) and United Arab Emirates (56). In addition, as permitted by SEC rules, we excluded 79 employees of Dixons of Westerhope, a United Kingdom subsidiary that we acquired in fiscal 2018. As a result, the aggregate employee population for purposes of identifying our median employee was approximately 15,900.
- To identify the median employee from our employee population, we used annual base salary as our consistently applied compensation measure. For hourly employees, annual salary was estimated by multiplying the hourly rate by the scheduled work hours for each work location.
- After identifying the median employee, the Company calculated annual total compensation for both the median employee and CEO in accordance with SEC rules to determine the pay ratio.

Under SEC's rules and guidance, companies are allowed to adopt numerous ways to identify the median employee. In addition, other companies have different employee demographics and compensation and benefit practices. As a result, CEO pay ratios reported by other companies may vary significantly and are likely not comparable to our CEO pay ratio.

# Audit and Finance Committee Matters

PROPOSAL

3

## Ratification of Appointment of Independent Auditors

The Audit and Finance Committee is directly responsible for the appointment, compensation, retention and oversight of the independent registered public accounting firm retained to audit the Company's financial statements. In 2018 the Audit and Finance Committee conducted a competitive process, which resulted in the Audit and Finance Committee selecting a new independent registered public accounting firm for fiscal 2019 — Deloitte & Touche LLP. The Board concurs with the appointment of Deloitte and, as a matter of good corporate governance, requests that our shareholders ratify the appointment of Deloitte even though ratification is not legally required. If shareholders do not ratify this appointment, the Audit and Finance Committee will consider such vote a recommendation to consider the appointment of another public accounting firm for the fiscal year ending September 30, 2020. Representatives of Deloitte will be available at the Annual Meeting to respond to questions.



The Board recommends a vote “FOR” the ratification of the appointment of Deloitte as the Company's independent registered public accounting firm for fiscal 2019.

**As discussed in more detail below, the Audit and Finance Committee recently conducted a competitive process to determine our independent registered public accounting firm for fiscal 2019. Following the review and evaluation of proposals, the Audit and Finance Committee approved the engagement of Deloitte. The Board believes that the engagement of Deloitte as our independent registered public accounting firm for fiscal 2019 is in the best interests of shareholders and is submitting the appointment of Deloitte to our shareholders for ratification as a matter of good corporate governance.**

## Selection of New Independent Registered Public Accounting Firm

As previously reported on the Company's Current Report on Form 8-K, dated July 26, 2018, the Audit and Finance Committee conducted a competitive process to determine the Company's independent registered public accounting firm for the Company's fiscal year ending September 30, 2019. The process included consideration of, among other things, external auditor independence, capability, effectiveness and efficiency of audit services, the qualifications and experience of the lead engagement partner and proposed team, results from management and Audit and Finance Committee performance assessments, performance in Public Company Accounting Oversight Board assessments, technological capabilities and the relative benefits of tenure versus fresh perspective. Several independent registered public accounting firms were invited to participate in this process, including KPMG, which had served as our independent registered public accounting firm since 2002. Following the review and evaluation of proposals from the firms participating in that process, and after careful consideration of each firm's demonstrated qualifications, the Audit and Finance Committee approved the engagement of Deloitte as our independent registered public accounting firm for the Company's fiscal year ending September 30, 2019. The Board believes that the engagement of Deloitte as the Company's independent registered public accounting firm for fiscal 2019 is in the best interests of the Company and our shareholders and recommends that shareholders ratify the appointment of Deloitte.

### No Disagreements with Prior Accountants

As previously reported, KPMG's audit reports on the Company's consolidated financial statements as of and for the fiscal years ended September 30, 2016 and 2017 did not contain an adverse opinion or a disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope or accounting principles. The audit reports of KPMG on the effectiveness of internal control over financial reporting as of September 30, 2016 and 2017 did not contain an adverse opinion or disclaimer of opinion, nor were they qualified or modified as to uncertainty, audit scope or accounting principles.

During the fiscal years ended September 30, 2016 and 2017, and the subsequent interim periods through July 24, 2018, there were (i) no disagreements between the Company and KPMG on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, any of which, if not resolved to KPMG's satisfaction, would have caused KPMG to make reference thereto in their reports and (ii) no "reportable events" within the meaning of Item 304(a)(1)(v) of Regulation S-K.

During the fiscal years ended 30 September 2017 and 2016, and the subsequent interim periods through July 24, 2018, neither the Company nor anyone on its behalf consulted with Deloitte regarding (i) the application of accounting principles to a specific transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's financial statements, and neither a written report nor oral advice was provided to the Company that Deloitte concluded was an important factor considered by the Company in reaching a decision as to any accounting, auditing or financial reporting issue, (ii) any matter that was the subject of a disagreement within the meaning of Item 304(a)(1)(iv) of Regulation S-K or (iii) any reportable event within the meaning of Item 304(a)(1)(v) of Regulation S-K.

We have been advised by Deloitte that it will have a representative present at the Annual Meeting. Deloitte's representative will have the ability to make a statement, if he or she desires, and will be available to respond to questions. We have been advised that a representative of KPMG will not be present at the Annual Meeting.

Based on its evaluation, the Audit and Finance Committee believes the appointment of Deloitte is in the best interests of the Company and our shareholders. The Board concurs and requests that shareholders ratify the appointment of Deloitte as the independent registered public accounting firm for fiscal 2019.

## Fees of Independent Registered Public Accounting Firm

Consistent with the Audit and Finance Committee's responsibility for engaging the Company's independent registered public accounting firm, all audit and permitted non-audit services performed by the Company's independent registered public accounting firm require preapproval by the Audit and Finance Committee. The full Committee approves projected services and fee estimates for these services and establishes budgets for major categories of services at its first meeting of the fiscal year. The Committee Chair has been designated by the Committee to approve any services arising during the year that were not preapproved by the Committee and services that were preapproved if the associated fees will cause the budget established for the type of service at issue to be exceeded by more than 10%. Services approved by the Chair are communicated to the full Committee at its next regular quarterly in person meeting, and the Committee reviews actual and forecasted services and fees for the fiscal year at each such meeting. During fiscal 2018, all services performed by the independent registered public accounting firm were preapproved.

During fiscal 2017 and fiscal 2018, the Company’s former independent registered public accounting firm, KPMG, billed the Company fees for services in the following categories and amounts (in millions):

KPMG Fees	2017 (\$)	2018 (\$)
Audit Fees	6.7	6.8
Audit-related Fees	2.8	1.1
Tax Fees	0.3	0.3
All Other Fees	0.0	0.0
Total Fees	9.8	8.2

Audit fees are fees for those professional services rendered in connection with the audit of the Company’s consolidated financial statements and the review of the Company’s quarterly consolidated financial statements on Form 10-Q that are customary under the standards of the Public Company Accounting Oversight Board (United States) and in connection with statutory audits in foreign jurisdictions. Audit-related services consisted primarily of services rendered in connection with employee benefit plan audits, SEC registration statements, due diligence assistance and consultation on financial accounting and reporting standards. Tax fees were primarily for preparation of tax returns in non-U.S. jurisdictions, assistance with tax audits and appeals and consulting on tax reform matters.

## Audit and Finance Committee Report

The Audit and Finance Committee provides oversight of the Company’s financial reporting process on behalf of the Board. Management bears primary responsibility for the financial statements and the reporting process, including the system of internal controls and disclosure controls. The independent registered public accounting firm is responsible for expressing an opinion on the conformity of the audited consolidated financial statements with United States generally accepted accounting principles.

In fulfilling its responsibilities, the Audit and Finance Committee has reviewed and discussed the audited consolidated financial statements contained in the Company’s Annual Report on Form 10-K for the fiscal year ended September 30, 2018 with the Company’s management and KPMG, which was the independent registered public accounting firm that audited such financial statements. The Committee has discussed with KPMG the matters that are required to be discussed under Public Company Accounting Oversight Board standards governing communications with audit committees. KPMG has provided to the Committee the written disclosures and the letter concerning independence required by applicable requirements of the Public Company Accounting Oversight Board regarding independent registered public accounting firm communications with the Audit and Finance Committee, and the Committee has discussed with KPMG the firm’s independence.

Based on the reviews and discussions referred to above, the Committee approved the audited consolidated financial statements and recommended to the Board that they be included in the Company’s Annual Report on Form 10-K for the fiscal year ended September 30, 2018.

### Audit and Finance Committee

Matthew H. Paull, Chair  
 Susan K. Carter  
 Charles I. Cogut  
 David H. Y. Ho  
 Edward L. Monser

# Information About Stock Ownership

## Persons Owning More than 5% of Air Products Stock as of September 30, 2018

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percent of Class
The Vanguard Group (“Vanguard”) <sup>(1)</sup> 100 Vanguard Boulevard Malvern, PA 19355	18,059,167	8.25%
Black Rock, Inc. <sup>(2)</sup> 55 East 52 <sup>nd</sup> Street New York, NY 10055	17,544,664	8.00%
State Farm Mutual Automobile Insurance Company (“State Farm”) <sup>(3)</sup> One State Farm Plaza Bloomington, IL 61710	15,499,889	7.08%

<sup>(1)</sup> As reported in Amendment No. 6 to its Schedule 13G filed with the SEC on February 7, 2018, Vanguard has sole voting power over 302,146 shares, shared voting power over 43,249 shares, sole power to direct disposition of 17,718,550 shares and shared power to direct disposition of 340,617 shares.

<sup>(2)</sup> As reported in Amendment No. 2 to its Schedule 13G filed with the SEC on January 29, 2018, Black Rock, Inc. has sole voting power over 15,283,725 shares and sole power to direct disposition of 17,544,664 shares.

<sup>(3)</sup> As reported on its Schedule 13G filed with the SEC on February 8, 2018, in the aggregate entities affiliated with State Farm have sole voting power over 15,393,100 shares, shared voting power over 106,789 shares, sole power to direct disposition of 15,393,100 shares and shared power to direct disposition of 106,789 shares.

## Air Products Stock Beneficially Owned by Officers and Directors

The table below shows the number of shares of common stock beneficially owned as of November 1, 2018 by each member of the Board and each named executive officer as well as the number of shares owned by the directors and all executive officers as a group. None of the directors or executive officers own one percent or more of the Company's common stock.

Name of Beneficial Owner	Common Stock <sup>(1)</sup>	Right to Acquire <sup>(2)(3)</sup>	Total <sup>(4)</sup>
Seifi Ghasemi	343,683	208,593	552,276
M. Scott Crocco	39,589	55,345	94,934
Sean D. Major	73	0	73
Samir Serhan	109	0	109
Corning F. Painter	27,055	58,107	85,162
Susan K. Carter	0	0	0
Charles I. Cogut	1,000	3,290	4,290
Chadwick C. Deaton	0	10,971	10,971
David H. Y. Ho	0	11,451	11,451
Margaret G. McGlynn	0	12,664	12,664
Edward L. Monser	0	9,565	9,565
Matthew H. Paull	4,057	0	4,057
Directors and executive officers as a group (12 persons)	415,566	369,986	785,552

<sup>(1)</sup> Certain executive officers hold restricted shares, which we include in this column. The executive officer may vote the restricted shares but may not sell or transfer them until the restrictions expire. The individuals in the table hold the following number of restricted shares:

Name	Shares
Seifi Ghasemi	32,270
M. Scott Crocco	5,820
All executive officers	38,090

This column also includes shares held by executive officers in the Company's Retirement Savings Plan. Participants have voting rights with respect to such shares and can generally redirect their plan investments.

- <sup>(2)</sup> The executive officers have the right to acquire this number of shares within 60 days of November 1, 2018 by exercising outstanding options granted under the Company's Long-Term Incentive Plan or through the vesting of performance shares or RSUs. In addition to these amounts, our executive officers hold equity awards granted under the Company's Long-Term Incentive Plan that will not vest within 60 days of November 1, 2018. For additional information regarding such holdings, refer to the Outstanding Equity Awards at 2018 Fiscal Year-End Table on page 39. Directors hold deferred stock units shown in the table that are distributable within 60 days upon a director's retirement or resignation based upon the director's payout elections under the Deferred Compensation Program for Directors. Deferred stock units held by directors who have elected to defer payout for longer periods are disclosed in footnote 3 below. Deferred stock units entitle the holder to receive one share of Company stock and accrued dividend equivalents. Deferred stock units do not have voting rights.
- <sup>(3)</sup> Executive officers and directors hold deferred stock units reflected in the table below, which are not distributable within 60 days and which have been earned out or acquired through deferrals of salary, annual incentive awards or directors' fees. Directors' deferred stock units shown below are not included in the table above solely because the directors have elected to defer payout of those units beyond their retirement or resignation.

## Information About Stock Ownership

Name of Beneficial Owner	Deferred Stock Units
Seifi Ghasemi	2,590
Corning F. Painter	1,045
Susan K. Carter	13,454
Margaret G. McGlynn	22,762
Matthew H. Paull	5,416

<sup>(4)</sup> Directors, nominees and executive officers as a group beneficially own less than 1% of the Company's outstanding shares.

## Section 16(a) Beneficial Ownership Reporting

Section 16(a) of the Securities Exchange Act of 1934 requires our directors and executive officers to file reports of holdings and transactions in Company stock and related securities with the SEC and NYSE. Based on our records and other information, we believe that in fiscal 2018 all of our directors and executive officers met all applicable Section 16(a) filing requirements with one exception. On October 9, 2018, Russell A. Flugel filed a Form 4 to report the disposition of 100 shares that were withheld for taxes incurred upon the vesting of certain restricted stock units on December 5, 2017. The reporting of this transaction was delayed due to an administrative oversight.

# Questions and Answers on Voting and the Annual Meeting

## Q How many shares can vote at the Annual Meeting?

A As of the record date, which was November 30, 2018, 219,549,135 shares of Company common stock were issued and outstanding, which are the only shares entitled to vote at the Annual Meeting. Every owner of Company stock is entitled to one vote for each share owned.

## Q Who counts the votes?

A A representative of Broadridge Corporate Issuer Solutions, Inc. will tabulate the votes and act as the independent inspector of election.

## Q What is a proxy?

A A proxy is your legal appointment of another person to vote the shares of Company stock that you own in accordance with your instructions. The person you appoint to vote your shares is also called a proxy. You can find an electronic proxy card at [www.proxyvote.com](http://www.proxyvote.com) that you can use to vote your shares online or you can scan the QR code provided with your proxy materials. If you received these proxy materials by mail, you can also vote by mail or telephone using the proxy card enclosed with these materials.

On the proxy card, you will find the names of the persons designated by the Company to act as proxies to vote your shares at the Annual Meeting. The proxies are required to vote your shares in the manner you instruct.

## Q What shares are included on my proxy card?

A If you are a registered shareholder, your proxy card(s) will show all of the shares of Company stock registered in your name with our Transfer Agent, Broadridge Corporate Issuer Solutions, Inc. on the record date, including shares in the Direct Stock Purchase and Sale Program administered for Air Products' shareholders by our Transfer Agent. If you have shares registered in the name of a bank, broker or other registered owner or nominee, they will not appear on your proxy card.

## Q How do I vote the shares on my proxy card?

A If you received a Notice of Availability of Proxy Materials and accessed these proxy materials online, follow the instructions on the Notice to obtain your records and vote electronically.

If you received these proxy materials by mail, you may vote by signing and dating the proxy card(s) and returning the card(s) in the prepaid envelope. You also can vote via mobile device, online or by using a toll-free telephone number. Instructions about these ways to vote appear on the proxy card. If you vote by telephone, please have your paper proxy card and control number available. The sequence of numbers appearing on your card is your control number, and your control number is necessary to verify your vote.

If you received these proxy materials via e-mail, the e-mail message transmitting the link to these materials contains instructions on how to vote your shares of Company stock and your control number.



## Questions and Answers on Voting and the Annual Meeting

Whether your proxy is submitted by mail, telephone, mobile device or online, your shares will be voted in the manner you instruct. If you do not specify in your proxy how you want your shares voted, they will be voted according to the Board's recommendations below:

Item	Board Recommendation
1. Election of the Board's Eight Nominees as Directors	FOR
2. Advisory Vote on Executive Officer Compensation	FOR
3. Ratification of Deloitte & Touche LLP as the Company's Independent Registered Public Accounting Firm	FOR

### Q How do I vote shares held by my broker, bank or other nominee?

A If a broker, bank or other nominee holds shares of Company stock for your benefit and the shares are not in your name on the Transfer Agent's records, then you are considered a "beneficial owner" of those shares. If your shares are held this way, sometimes referred to as being held in "street name," your broker, bank or other nominee will send you instructions on how to vote. If you have not heard from the broker, bank or other nominee who holds your Company stock, please contact them as soon as possible. If you plan to attend the meeting and would like to vote your shares held by a bank, broker or other nominee in person, you must obtain a legal proxy, as described in the admission procedures section on page 60.

If you do not give your broker instructions as to how to vote, under NYSE rules, your broker has discretionary authority to vote your shares for you on Item 3 to ratify the appointment of auditors. Your broker may not vote for you without your instructions on the other items of business. Shares not voted on these other matters by your broker because you have not provided instructions are sometimes referred to as "broker nonvotes."

### Q May I change my vote?

A Yes. You may revoke your proxy at any time before the Annual Meeting by submitting a later dated proxy card, by a later telephone or on-line vote, by notifying us that you have revoked your proxy or by attending the Annual Meeting and giving notice of revocation in person.

### Q How is Company stock in the Company's Retirement Savings Plan voted?

A If you are an employee who owns shares of Company stock under the Retirement Savings Plan and you have regular access to a computer for performing your job, you were sent an e-mail with instructions on how to view the proxy materials and provide your voting instructions. Other participants in the Retirement Savings Plan will receive proxy materials and a proxy card in the mail. The Trustee, Fidelity Management Trust Company, will vote shares of Company stock allocated to your Plan account on the record date in accordance with the directions you give on how to vote. The Trustee will cast your vote in a manner that will protect your voting privacy. If you do not give voting instructions or your instructions are unclear, the Trustee will vote the shares in the same proportions and manner as overall Retirement Savings Plan participants instruct the Trustee to vote shares allocated to their Plan accounts.

### Q What is a "quorum"?

A A quorum is necessary to hold a valid meeting of shareholders. A quorum exists if a majority of the outstanding shares of Company stock are present in person at the Annual Meeting or represented there by proxy. If you vote, including by Internet, telephone or proxy card, your shares voted will be counted towards the quorum for the Annual Meeting. Proxies marked as abstentions and broker discretionary votes are also treated as present for purposes of determining a quorum.

## Q What vote is necessary to pass the items of business at the Annual Meeting?

**A Election of Directors.** Our Bylaws provide that if a quorum is present at the Annual Meeting and the number of director nominees does not exceed the number of directors to be elected (i.e., an uncontested election), director nominees will be elected if they receive a majority of the votes cast at the meeting in person or by proxy. This means that in uncontested elections the nominees will be elected if the number of shares voted “for” the nominee exceeds the number of shares voted “against” the nominee. In a contested election, nominees would be elected by a plurality of votes cast. Abstentions and broker nonvotes are not counted as votes cast and therefore will have no effect.

Under our Corporate Governance Guidelines, any incumbent director who is not reelected by a majority of the votes cast must tender his or her resignation to the Corporate Governance and Nominating Committee of the Board for its consideration. The Corporate Governance and Nominating Committee then recommends to the Board whether to accept the resignation. The director will continue to serve until the Board decides whether to accept the resignation but will not participate in the Committee’s recommendation or the Board’s action regarding whether to accept the resignation. The Board will publicly disclose its decision and rationale within 90 days after certification of the election results by the inspector of election. If the Board does not accept the director’s resignation, the director will continue to serve.

**All Other Items.** The other two items of business will be approved if shares voted in favor of the proposal exceed shares voted against the proposal. Abstentions and broker nonvotes will not affect the outcome of the vote.

## Q How will voting on any other business be conducted?

**A** We do not know of any business or proposals to be considered at the Annual Meeting other than the items described in this proxy statement. If any other business is proposed and the chairman of the Annual Meeting permits it to be presented at the Annual Meeting, the signed proxies received from you and other shareholders give the persons voting the proxies the authority to vote on the matter according to their judgment.

## Q When are Shareholder proposals for the Annual Meeting to be held in 2020 due?

**A** To be considered for inclusion in next year’s proxy statement, shareholder proposals must be delivered in writing to the Secretary of the Company, Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown, PA 18195-1501 no later than August 14, 2019.

To be presented at the 2020 Annual Meeting, our Bylaws require that adequate written notice of a proposal to be presented or nomination must be delivered in writing to the Secretary of the Company in person or by mail at the address stated above on or after September 26, 2019 but no later than October 26, 2019. To be considered adequate, the notice must contain other information specified in the Bylaws about the matter to be presented at the meeting and the shareholder proposing the matter. A copy of our Bylaws can be found in the “Governance” section of our website at [www.airproducts.com](http://www.airproducts.com). A proposal received after October 26, 2019 will be considered untimely and will not be entitled to be presented at the meeting.

## Q What are the costs of this proxy solicitation?

**A** We hired Morrow Sodali, 470 West Ave., Stamford CT 06902 to help distribute materials and solicit votes for the Annual Meeting. We will pay them a fee of \$13,000, plus out-of-pocket costs and expenses. We also reimburse banks, brokers and other custodians, nominees and fiduciaries for their reasonable out-of-pocket expenses for forwarding proxy materials to you, because they hold title to Company stock for you. In addition to using the mail, our directors, officers and employees may solicit proxies by personal interview, telephone, telegram or otherwise, although they will not be paid any additional compensation. The Company will bear all expenses of solicitation.

## Q May I inspect the shareholder list?

- A For a period of 10 days prior to the Annual Meeting, a list of shareholders registered on the books of our Transfer Agent as of the record date will be available for examination by registered shareholders during normal business hours at the Company's principal offices as long as the examination is for a purpose germane to the meeting.

## Q How can I get materials for the Annual Meeting?

- A Under rules adopted by the SEC, we are furnishing proxy materials to most of our shareholders via the Internet instead of mailing printed copies of those materials to each shareholder. On December 12, 2018, we mailed to our shareholders (other than those who previously requested electronic or paper delivery) a Notice of Availability of Proxy Materials containing instructions on how to access our proxy materials, including our proxy statement and our 2018 Annual Report to Shareholders. The Notice of Availability of Proxy Materials also instructs you on how to access your proxy card to vote through the Internet.

This process is designed to expedite shareholders' receipt of proxy materials, lower the cost of the Annual Meeting and help conserve natural resources. However, if you would prefer to receive printed proxy materials, please follow the instructions included in the Notice of Availability of Proxy Materials. If you have previously elected to receive our proxy materials electronically, you will continue to receive these materials via e-mail unless you elect otherwise.

**Current Employees.** If you are an employee of the Company or an affiliate who is a participant in the Retirement Savings Plan or who has outstanding stock options, with an internal Company e-mail address as of the record date, you should have received e-mail notice of electronic access to the Notice of Annual Meeting, the proxy statement and the 2018 Annual Report to Shareholders on or about December 12, 2018. You may request a paper copy of these materials by contacting the Corporate Secretary's Office. If you do not have an internal Company e-mail address, paper copies of these materials were mailed to your home. Instructions on how to vote shares in your Plan account are contained in the e-mail notice or accompany the paper proxy materials mailed to you.

If you have employee stock options awarded to you by the Company or an affiliate but do not otherwise own any Company stock on the record date, you are not eligible to vote and will not receive a proxy card for voting. You are being furnished this proxy statement and the 2018 Annual Report to Shareholders for your information and as required by law.

## Q What are the admission procedures for the Annual Meeting?

- A To gain admission to the Annual Meeting, if not a Company employee, you must present your admission ticket at the Visitor's Entrance to the Air Products Corporate Headquarters.

**Registered Shareholders.** If you received a "Notice of Availability of Proxy Materials," the Notice is your admission ticket. If you received these proxy materials by mail or e-mail, your admission ticket is on the top half of the reverse side of your proxy card, which must be printed if you received it by e-mail.

**Shares held through broker, bank or other nominee.** When you vote your shares, either electronically or via the voting instruction form you receive from your broker, bank or other nominee, you will be given the opportunity to check a box indicating that you intend to attend the Annual Meeting. If you check the box, you will be sent a "legal proxy", which will serve as your admission ticket. (Please note, if you check this box, your shares must be voted in person.) Alternatively, you will be admitted if you present a Notice of Availability of Proxy Materials or Voting Instruction Form relating to the Air Products Annual Meeting; however, you must present a legal proxy if you wish to vote your shares in person.

**Q How can I reach the Company to request materials or information referred to in these Questions and Answers?**

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**A** You may reach us by mail addressed to:

Corporate Secretary's Office  
Air Products and Chemicals, Inc.  
7201 Hamilton Boulevard  
Allentown, PA 18195-1501,

or by calling 610-481-4880.

# Appendix A

## Reconciliation of Non-GAAP Financial Measures

(Millions of dollars unless otherwise indicated, except for per share data)

The Company has presented certain financial measures on a non-GAAP (“adjusted”) basis and has provided a reconciliation to the most directly comparable financial measure calculated in accordance with GAAP. These financial measures are not meant to be considered in isolation or as a substitute for the most directly comparable financial measure calculated in accordance with GAAP. The Company believes these non-GAAP measures provide investors, potential investors, securities analysts, and others with useful supplemental information to evaluate the performance of the business because such measures, when viewed together with our financial results computed in accordance with GAAP, provide a more complete understanding of the factors and trends affecting our historical financial performance and projected future results.

In many cases, our non-GAAP measures are determined by adjusting the most directly comparable GAAP financial measure to exclude certain disclosed items (“non-GAAP adjustments”) that we believe are not representative of the underlying business performance. For example, in fiscal years 2017 and 2016, we restructured the Company to focus on its core Industrial Gases business. This resulted in significant cost reduction and asset actions that we believe were important for investors to understand separately from the performance of the underlying business. Additionally, in fiscal year 2018, we recorded discrete impacts associated with the Tax Act. The reader should be aware that we may incur similar expenses in the future. The tax impact on our pre-tax non-GAAP adjustments reflects the expected current and deferred income tax expense impact of the transactions and is impacted primarily by the statutory tax rate of the various relevant jurisdictions and the taxability of the adjustments in those jurisdictions. Investors should also consider the limitations associated with these non-GAAP measures, including the potential lack of comparability of these measures from one company to another.

The following non-GAAP reconciliation is on a continuing operations basis.

## Consolidated Results

	2018	2017
<b>GAAP EPS</b>	<b>\$6.59</b>	<b>\$5.16</b>
Change in inventory valuation method	(.08)	—
Business separation costs	—	.12
Tax benefit associated with business separation	—	(.02)
Cost reduction and asset actions	—	.49
Goodwill and intangible asset impairment charge	—	.70
Gain on land sale	—	(.03)
Equity method investment impairment charge	—	.36
Pension settlement loss	.15	.03
Tax reform repatriation	2.16	—
Tax reform benefit related to deemed foreign dividends	(.25)	—
Tax reform rate change and other	(.96)	—
Tax restructuring	(.16)	—
Tax election benefit	—	(.50)
<b>Non-GAAP EPS</b>	<b>7.45</b>	<b>6.31</b>
<b>GAAP Change from prior year</b>	<b>\$ 1.43</b>	
GAAP % Change from prior year	28 %	
Non-GAAP Change from prior year	\$ 1.14	
<b>Non-GAAP % Change from prior year</b>	<b>18 %</b>	

## Adjusted EBITDA

We define Adjusted EBITDA as income from continuing operations (including noncontrolling interests) excluding certain disclosed items, which the Company does not believe to be indicative of underlying business trends, before interest expense, other non-operating income (expense), net, income tax provision, and depreciation and amortization expense. Adjusted EBITDA provides a useful metric for management to assess operating performance.

	2018	2017
Income from Continuing Operations <sup>(A)</sup>	\$1,490.7	\$1,155.2
Less: Change in inventory valuation method	24.1	—
Add: Interest expense	130.5	120.6
Less: Other non-operating income (expense), net	5.1	16.6
Add: Income tax provision	524.3	260.9
Add: Depreciation and amortization	970.7	865.8
Add: Business separation costs	—	32.5
Add: Cost reduction and asset actions	—	151.4
Add: Goodwill and intangible asset impairment charge	—	162.1
Less: Gain on land sale	—	12.2
Add: Equity method investment impairment charge	—	79.5
Add: Tax reform repatriation- equity method investment	28.5	—
Adjusted EBITDA	\$3,115.5	2,799.2
Income from Continuing Operations Change from prior year	335.5	
Income from Continuing Operations % Change from prior year	29%	
Adjusted EBITDA Change from prior year	316.3	
Adjusted EBITDA % Change from prior year	11%	

<sup>(A)</sup> Includes net income attributable to noncontrolling interests.

	2018	2017
Adjusted EBITDA Margin	34.9%	34.2%
Change from prior year	70bp	

# Appendix B

## Survey Reference Group

Alticor	Estee Lauder	PVH
Arkema	Federated-Mogul	Quanta Services
Baker Hughes	Hershey	R.R. Donnelley
Ball	Hormel Foods	Reynolds American
Becton Dickinson	Illinois Tool Works	Rockwell Automation
BorgWarner	Jabil Circuit	S.C. Johnson & Son
Boston Scientific	Jacobs Engineering	Sealed Air
Cameron International	Kellogg	Sherwin-Williams
Chesapeake Energy	Kinder Morgan	Stanley Black & Decker
Coca-Cola Enterprises	Land O'Lakes	Stryker
Commercial Metals	Masco	TE Connectivity
Corning	Medline	Terex
Covestro	MillerCoors	Textron
Dairy Farmers of America	Mohawk	United States Steel
Dana Holding	Mosaic	VF Corporation
Dean Foods	Navistar International	Waste Management
Devon Energy	ONEOK	WestRock
Dover	Parker Hannifin	Weyerhaeuser
Eastman Chemical	Peabody Energy	Williams Companies
Ecolab	Performance Food Group	
EOG Resources	Praxair	



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# Driving Directions to Air Products and Chemicals, Inc. Corporate Headquarters

## Air Products and Chemicals, Inc.

7201 Hamilton Boulevard  
Allentown, PA 18195-1501  
610-481-4911



### From Pennsylvania Turnpike (US 476)

- Take Lehigh Valley Exit 56 (formerly Exit 33) from Turnpike to Route 22 West, Harrisburg.
- Follow Route 22 West to Trexlertown Exit (Exit 49A off Route 22 and I-78) onto Route 100 South.
- Proceed on Route 100 South for 3 miles; continue straight and at this point Route 100 becomes Trexlertown Road.
- Proceed one more mile to the traffic light at Trexlertown Road and Hamilton Boulevard.
- Turn left onto Hamilton Boulevard. Go under the RR bridge and proceed to the second traffic light.
- Turn left at the “Visitor Entrance” sign (Gate 2) into the Air Products complex.



### From Route 22

- Take Exit 49A from Route 22 and I-78 onto Route 100 South.
- Proceed on Route 100 South for 3 miles; continue straight, and at this point Route 100 becomes Trexlertown Road.
- Proceed one more mile to a traffic light at Trexlertown Road and Hamilton Boulevard.
- Turn left onto Hamilton Boulevard. Go under the RR bridge and proceed to the second traffic light.
- Turn left at the “Visitor Entrance” sign (Gate 2) into the Air Products complex.



### From Route 309 North and I-78 West

- Take Exit 54A to Route 222 South.
- Follow 222 South to the traffic light at Mill Creek Road.
- Turn left on Millcreek Road and proceed to Hamilton Boulevard.
- Proceed south on Hamilton Boulevard.
- Corporate Office is located on right side of highway. Turn right at the “Visitor Entrance” sign (Gate 2) into the Air Products complex.



### From Route 309 South and I-78 East

- Take Exit 54. At the bottom of the ramp, turn right onto Route 222 South.
- Follow 222 South to the traffic light at Mill Creek Road.
- Turn left on Millcreek Road and proceed to Hamilton Boulevard.
- Proceed south on Hamilton Boulevard.
- Corporate Office is located on right side of highway. Turn right at the “Visitor Entrance” sign (Gate 2) into the Air Products complex.

For more information,  
please contact us at:

**Corporate Headquarters**

Air Products and Chemicals, Inc.  
7201 Hamilton Boulevard  
Allentown, PA 18195-1501  
T 610-481-4911  
F 610-481-5900

**Corporate Secretary's Office**

Sean D. Major  
Executive Vice President,  
General Counsel and Secretary  
T 610-481-4880

**Investor Relations Office**

Simon Moore, Vice President,  
Investor Relations and  
Corporate Relations  
T 610-481-5775

