ENERGY ABUNDANCE
ENERGY SECURITY
U.S. MANUFACTURING RENAISSANCE
AMERICAN PROSPERITY
HIGH-PAYING TECHNICAL JOBS
CAPITAL INVESTMENT
STREAMLINED AND EFFECTIVE REGULATIONS
SENSIBLE, RELIABLE ENERGY POLICY
The United States has become the world’s top producer of oil and natural gas, a fact unfathomable just a few short years ago. We are now afforded the opportunity to redefine our nation’s role in the global energy market and what energy abundance means for all Americans. This includes the industries that use them to manufacture the products that make modern life possible; the resulting jobs and robust economy; and ultimately, the American consumer. Every day, every one of us benefits from the positive impacts American fuel and petrochemical manufacturers are having on a global, national and local level.

Globally: Our vast natural resources and the most technologically advanced refineries and petrochemical facilities in the world are redefining America as the most efficient and sophisticated manufacturers of the fuels and products the world demands. AFPM member companies are strengthening America’s position as a global partner, lessening reliance on unstable regimes and providing more consumer choices.

Nationally: Our industry has provided the boost the nation needed to emerge from a deep recession. In 2015, American refiners and petrochemical manufacturers are investing more than $25 billion in the United States on capital and maintenance expenditures – keeping jobs at home, continuing to satisfy domestic fuel needs and solidifying the nation as a competitive manufacturing center.

Locally: AFPM members are helping local communities hard hit by previous economic cycles rebound by providing a wide range of jobs with family-supporting wages and benefits. With supportive policies in place, this wealth of career opportunities can reinvigorate Main Streets across the country.

The United States is fortunate to have a supply of energy resources that are abundant, efficient, readily accessible and affordable. Recognizing this new reality, our industry is combining changes in domestic energy production capabilities and global demand to position itself as an innovative, economic engine for America. Let’s work together to recast our views on our energy abundance, not scarcity. Let’s work together to develop regulatory programs that are environmentally sound, economically justifiable, and free market oriented that reflect this evolving energy landscape.

As you’ll read, our industry has always been able to redefine itself to respond to cyclical changes and new realities. We are confident that our industry’s ability to evolve, partnered with an equally innovative regulatory approach, will allow us all to continue our trajectory of growth and prosperity.

Gregory J. Goff
Chairman of the Board

Charles T. Drevna
President
The petroleum industry has always been dynamic and subject to both international and domestic events that require flexibility and change. However, change has been dramatic for the U.S. industry over the last decade, driven mainly by increasing North American oil and gas production and by shifting consumer demand. These factors – combining both challenge and opportunity – have affected all petroleum sectors including America’s fuel and petrochemical manufacturers.

For the energy industry, continuous change has become the ‘new normal’ and will likely remain so for years to come. The challenge is to effectively deal with change. The United States has demonstrated its ability to do so, fully supplying domestic markets while establishing itself as a net exporter of petroleum products.

At the same time, the U.S. has seized the opportunity to become the world’s top producer of oil and natural gas. AFPM members will continue to evolve and redefine themselves, as they always have, to meet consumer needs and to contribute positively to economic growth on global, national and local levels.

**GROWTH AND PROSPERITY IN A NEW REALITY**

**U.S. CONTINUES TO SUPPLY THE WORLD WITH PETROLEUM PRODUCTS**

**MILLION BARRELS PER DAY**

Source: Energy Information Administration

(Includes finished petroleum products and gasoline blending components.)
Abundant supplies of domestic natural resources combined with technology advances have revolutionized America’s role in the global energy economy and revitalized our manufacturing sector.

Increased crude oil production in the United States has more than cushioned unplanned global supply outages estimated to be around three million barrels/day in 2014. Much of this loss has come from other, often times less stable, parts of the world.

**U.S. COMPENSATES FOR UNPLANNED WORLD CRUDE OIL PRODUCTION OUTAGES**

**MILLION BARRELS PER DAY**

Source: EIA Short Term Energy Outlook January 2015

**REDEFINING OUR INDUSTRY’S GLOBAL ROLE**
While crude production has increased dramatically, U.S. petroleum demand has declined largely as a result of the recent recession and more efficient automobiles. However, U.S. refiners have been able to adjust and to competitively shift surplus output to the rest of the world, not only because of their efficient and sophisticated facilities, but also because of access to relatively inexpensive domestic and Canadian crude oils together with low-priced natural gas.

Petrochemical manufacturers also are benefitting from increased U.S. production of natural gas which, when processed, provides growing, affordable supplies of petrochemical feedstocks such as ethane and propane. These feedstocks are used to create the products consumers rely on every day. This is stimulating significant expansion in the petrochemical industry, serving American consumers as well as world markets.

Source: U.S. Energy Information Administration (ethane-ethylene production)

**US PETCHEM COMPETITIVE POSITION IMPROVED BY RISING ETHANE PRODUCTION**

**MILLION BARRELS PER DAY (NATURALLY PROCESSED)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>0.57</td>
</tr>
<tr>
<td>2014</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: U.S. Energy Information Administration (ethane-ethylene production)
Domestic crude oil and natural gas production increases are occurring in traditional production areas such as Texas as well as newer areas like North Dakota and the Marcellus region, more than compensating for declines in other states. Despite lower international crude prices, many new U.S. production areas are still economically favorable. As a result, crude oil and natural gas production are expected to remain strong.

To accommodate new production and shifts in product demand, America’s fuel and petrochemical manufacturers are making large capital investments at home. Over the next five years, the refining industry plans to spend more than $50 billion on facility projects. With U.S. and world diesel demand growing faster than demand for gasoline, U.S. refiners’ investments and changes to operations have allowed them to increase diesel volumes much more than gasoline over the past five years. Investments are also being made to access and use more U.S. light crude oil and Canadian heavy oil, decreasing America’s dependence on imports outside of North America. Crude oil imports outside of Canada fell from a peak share of over 55 percent of supply in 2005 to only 28 percent in 2014.

For petrochemical manufacturers, increased natural gas production and lower energy prices have positioned the United States among the most attractive manufacturing centers in the world. In 2014, the

---

### US Refiners Shift Production Growth with Demand Change (Production Increases 2009-2014)

**Barrels Per Day**

- **376,000 Gasoline**
- **915,000 Diesel, Jet, Kerosene Fuels**

*Source: U.S. Energy Information Administration*

### U.S. Refining & Petrochemical Cumulative Capital & Maintenance Spending Projected to Top $140 Billion

**Billion Dollars**

- **$11B** - 2015
- **$15B** - 2016
- **$26B** - 2017
- **$45B** - 2018
- **$58B** - 2019
- **$60B** - 2018 (Refining)
- **$67B** - 2019 (Petrochemicals)

*Source: Industrial Info Resources Topline Market Spending Forecast. 2014 Q4 Edition*
petrochemical industry executed almost 100 projects including grassroots, expansion and rebuilding worth over $13 billion. In addition, the petrochemical industry currently proposes spending over $59 billion over the next five years to take advantage of abundant American shale gas and the cost advantage it affords them over their foreign competitors. Global chemical companies are also making large investments to shift manufacturing capacity back to the United States. Abundant energy reserves unleashed through shale development and technology advances must be delivered safely to our refineries and petrochemical facilities, stimulating investment in additional transportation infrastructure. Shipments by rail have risen 4000 percent from 2008 – 2013, while pipeline transmission rose 10.6 percent from 2009 – 2013. During 2014, more new pipeline projects were approved and additional investment is needed to keep pace with rising oil production across the country. U.S. refiners are investing in fleet enhancements to increase safety by rail and have an outstanding record of compliance with transportation safety regulations.

AFPM estimates that since 2011 its members have made a significant capital investment of more than $3 billion in tank car safety.

Abundant energy reserves drive dramatic increase in crude-by-rail transportation car loads

4,000% increase since 2008

Source: AllTranstek
The United States economic recovery is directly attributed to the expansion and success of the oil and natural gas industry. America’s oil and gas industry delivers about $85 million/day to the government in the form of federal income taxes, royalty payments and other fees. On Main Street, local economies are on the rebound with the expansion of jobs and the increase in tax payments to states, which have been used to support local transportation projects, environmental programs, public schools and economic development.

The oil and gas industry continues to play a vital role in supporting more than 9.8 million direct and indirect jobs. The refining and petrochemical industry offers careers with family-supporting wages and benefits. The average annual salary in the refining industry is $111,542 and in the chemical industry is $88,800. Meanwhile, the average wage in all industries is $62,063. Opportunities exist for individuals with a range of training and education levels, from skilled craft or business professionals to engineers and chemists and are detailed on AFPM’s workforce development website: workforce.afpm.org.

ENERGIZING AN UP-AND-COMING WORKFORCE

AFPM HAS TEAMED UP WITH EDVENTURE PARTNERS TO LAUNCH A NATIONWIDE, INDUSTRY-EDUCATION PARTNERSHIP PROGRAM WITH THE GOAL OF ENCOURAGING YOUNG PEOPLE TO PURSUE CAREERS IN THE FUEL AND PETROCHEMICAL MANUFACTURING SECTORS.

As part of their coursework, students at selected colleges and universities will develop and execute a strategic marketing campaign which:

- Increases awareness and interest in the fuel and petrochemical manufacturing sectors
- Highlights the range of career opportunities and various pathways to pursue an industry career
- Supports the recruitment of skilled craft professionals to meet industry needs

This project allows millennials to design, plan and communicate to their peers and gain real-world marketing and learning experiences.

Top teams present their campaigns and compete for prizes in May 2015.
American refineries and petrochemical facilities continue to operate with the highest of safety and environmental standards. Working together, our members have redefined what workers, contractors and communities can expect in terms of safety performance and environmental health.

In fact, the most recent government data shows that petroleum refining has comparatively the lowest rate of job-related injuries and illnesses. AFPM data supports these findings and indicates more than a decades-long decline in injury and illness rates. Clearly, collaboration among AFPM members to share best practices and lessons learned through programs, technical conferences, meetings and benchmarking surveys is yielding dividends. However, no incident is acceptable and we continue to strive for zero.

Our members are also strongly committed to clean air, water and waste reduction and have an outstanding record of compliance with the Environmental Protection Agency (EPA) and other regulatory bodies despite often conflicting regulations. AFPM member companies are proving that employee and environmental safety can remain front and center, even in work environments that often involve complex equipment, hazardous materials and highly intensive processes.

**PETROLEUM REFINING RATES OF INJURY & ILLNESS FAR LOWER THAN OTHER SECTORS**

**INCIDENCE RATE PER 100 FULL-TIME EMPLOYEES**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Transportation</td>
<td>6.9</td>
</tr>
<tr>
<td>Agriculture, Crop Production</td>
<td>5</td>
</tr>
<tr>
<td>Food Manufacturing</td>
<td>4.6</td>
</tr>
<tr>
<td>All Manufacturing</td>
<td>3.9</td>
</tr>
<tr>
<td>Construction</td>
<td>3.6</td>
</tr>
<tr>
<td>Professional &amp; Business Services</td>
<td>1.5</td>
</tr>
<tr>
<td>Petroleum Refining</td>
<td>0.9</td>
</tr>
</tbody>
</table>

America’s fuel and petrochemical manufacturers will continue a trajectory of growth and prosperity provided government advances a more balanced regulatory environment. As the voice of more than 400 companies in the refining and petrochemical industry, AFPM is committed to advocating for a national energy policy that is comprehensive, forward-looking and takes into account America’s new role as a global energy leader. To do that, we need a regulatory strategy that achieves our shared security, environmental and safety objectives but in a way that provides more certainty to industry, fewer unnecessary costs, and greater assurance that the regulations do not conflict with each other and achieve their intended purpose.

Fuels Policy – AFPM has long advocated for national fuels policies that are implementable, reflect a free market economy and a true all-of-the-above energy strategy, and provide benefits above costs. The federal biofuels mandate, the Renewable Fuel Standard (RFS), is a policy that does not uphold these tenets. In 2014, EPA recognized that these mandates are unachievable when it proposed to waive the total and advanced biofuel portion of the RFS for the first time, citing the reality of vehicle and infrastructure constraints to handling greater concentrations of ethanol in the fuel supply. This is an important first step and AFPM hopes policymakers will listen to the growing chorus agreeing that the RFS needs full repeal or at a minimum significant overhaul.

Chemical Facility Security – In 2014, Congress came together to develop and pass a more efficient and effective chemical security bill. The Chemical Facility Anti-Terrorism Standards (CFATS) is a bipartisan solution to safeguard chemical facilities and provides industry with the stability and certainty it needs to ensure long-term, sound facility security investments.

European Fuel Quality Directive – U.S. exports of diesel fuel to the European Union will not be hindered thanks to the efforts of a multi-stakeholder coalition that worked to prevent proposed modifications to the European Fuel Quality Directive. Left unchecked, this directive would have severely restricted opportunities for America’s refiners to compete on a level playing field.

WORKING WITH OUR MEMBER COMPANIES, AFPM IS EDUCATING STATE AND LOCAL ELECTED OFFICIALS, POLICY MAKERS, STAKEHOLDERS AND CONSUMERS ABOUT THE IMPACT OF NATIONAL POLICIES ON THEIR COMMUNITIES.

Tax Policy – AFPM continues to advocate for pro-growth, national tax policies that treat all manufacturers fairly and makes the United States an attractive place to do business, especially for the capital intensive manufacturing sector.

Crude-by-Rail – Refineries that ship America’s increasing crude supply by rail are continuing to enhance their fleets to increase safety. Any new regulations regarding the transport of crude oil will need to be done in a cost-efficient manner while yielding significant safety benefits.

But there is still more work to do:

Renewable Fuel Standard – The refining industry faces much uncertainty regarding RFS obligations. Despite EPA’s proposal, the agency failed to issue the final 2014 RFS requirements, nor has it set the 2015 volumes. Policymakers in the Administration and Congress must support the bipartisan movement that has begun and overhaul or repeal this program.

Ozone NAAQS + Greenhouse Gas Regulations – EPA’s proposed Ozone and Greenhouse Gas regulations are both costly and conflicting. Any process to achieve such stringent ozone requirements will require more energy and will increase greenhouse gas emissions. The United States has reduced ozone levels by 33 percent since 1980 and this trend will continue under the existing standard, without new restrictions that may end up being unachievable.
**WHAT**

1. **WORKFORCE DEVELOPMENT AND JOBS CREATION**

2. **EFFICIENT PERMITTING TO SUPPORT MANUFACTURING DEVELOPMENT**

3. **FEDERAL AND STATE GOVERNMENT PROCESS IMPROVEMENTS**

4. **STRATEGIC INFRASTRUCTURE DEVELOPMENT**

5. **RESEARCH AND INNOVATION**

**HOW**

- IMPLEMENT COLLABORATIVE TRAINING / EDUCATION / AWARENESS PROGRAMS

- INCREASE PROCESS TRANSPARENCY AND PREDICTABILITY

- STREAMLINE NAVIGATION OF THE REGULATORY ENVIRONMENT

- APPLY MODELS THAT HAVE OVERCOME PREVIOUS INFRASTRUCTURE CHALLENGES

- FOSTER NEW / CONTINUED PARTNERSHIPS AND SUSTAINED / PREDICTABLE FUNDING MECHANISMS

Formed in 2013 by AFPM, the American Shale & Manufacturing Partnership (ASMP) is dedicated to responsible shale development as an economic driver for America. This group of academic institutions, trade groups, think tanks, foundations, labor organizations, non-governmental entities and business development groups has released its ideas in five key areas to spur economic growth, job creation and global competitiveness for years to come.
“INDIVIDUAL COMMITMENT TO A GROUP EFFORT – THAT IS WHAT MAKES A TEAM WORK, A COMPANY WORK, A SOCIETY WORK, A CIVILIZATION WORK.”
– VINCETE LOMBARDI

THE STRENGTH OF AFPM’S IMPACT IS IN THE STRENGTH OF OUR MEMBERS.
AFPM is governed by a Board of Directors, which comprises representatives from each of our refining and petrochemical members.

When the Board is not in session, it delegates authority to the AFPM Executive Committee to provide oversight and govern the Association.

The Board of Directors elects a chairman, vice chairman, eleven vice presidents and a treasurer. These officers, together with the immediate past chairman, constitute the Executive Committee. The Board elects a president to serve as chief operating officer of the Washington, D.C.-based staff and headquarters office.

Chairman
Gregory J. Goff
Chairman, President and Chief Executive Officer
Tesor Corporation
San Antonio, TX

Vice Chairman
Lawrence M. Ziemba
Executive Vice President, Refining
Phillips 66
Houston, TX

Past Chair
David L. Lamp
President and Chief Executive Officer
Northern Tier Energy GP, LLC
Tempe, AZ

Kevin W. Brown
Executive Vice President, Manufacturing and Refining
LyondellBasell Industries
Houston, TX

Joseph W. Gorder
Chairman, President and Chief Executive Officer
Valero Energy Corporation
San Antonio, TX

Gary R. Heminger
President and Chief Executive Officer
Marathon Petroleum Corporation
Findlay, OH

Jack Lipinski
Chief Executive Officer
CVR Energy, Inc.
Sugar Land, TX

James S. Loving
Senior Vice President, Refining, Pipelines and Terminals
CHS Inc.
Inver Grove Heights, MN

Michael T. McDonnell
Chairman, President and Chief Executive Officer
TPC Group
Houston, TX

Thomas J. Nimbley
Chief Executive Officer
PBF Energy Inc.
Parsippany, NJ

Jeff Ramsey
Executive Vice President, Marketing
Flint Hills Resources, LP
Wichita, KS

Dennis Seith
President and Chief Executive Officer
INEOS Olefins & Polymers USA
League City, TX

Jerry Wascom
President
ExxonMobil Refining and Supply Co.
Houston, TX

Gary Yesavage
President
Chevron Manufacturing
Chevron U.S.A. Inc.
San Ramon, CA
BOARD OF DIRECTORS

Albemarle Corporation
Silvio Ghyoot

Alon USA
Paul Esman

American Refining Group, Inc.
Tim Brown

Arkema Inc.
Richard Reinhard

Axiall Corporation
C. Douglas Shannon

Baker Hughes Incorporated
Jim Macaluso

BASF Corporation
Heidi Alderman

Big West Oil, LLC
Mark Keim

BP Petrochemicals
Luis Sierra

BP Products North America
Doug Sparkman

Braskem America, Inc.
Mark Nikolich

Calcasieu Refining Company
Russ Wilhelm

Calumet Specialty Products Partners, L.P.
Jennifer Straumins

Calnex Ltd.
Scott Richardson

Chevron Phillips Chemical Company LP
Mark Lashier

Chevron U.S.A. Inc.
Gary Yesavage

CHS Inc.
James Loving

CITGO Petroleum Corporation
Edouard Assel

Cornerstone Chemical
Paul Mikesell

Countrymark Cooperative Holding Company
Matthew Smunch

Criterion Catalysts & Technologies
Robert Trout

CVR Energy, Inc.
Jack Lipinski

Delek Refining Ltd.
Frederic Green

Deltech Corporation
Zachary Levine

DuPont
Glenn Liesies

Eastman Chemical Company
Michael Berry

Enterprise Products Operating LLC
Graham Bacon

Ergon, Inc.
Don Davis

ExxonMobil Refining and Supply Co.
Jerry Wascam

ExxonMobil Chemical Co.
Bruce March

Flint Hills Resources, LP
Jeff Ramsey

Formosa Plastics Corporation, USA
Stan Ueng

GE Water & Process Technologies
Raymon Barlow

Grace Catalysts Technologies
Albert Beninati

HollyFrontier Corporation
Michael Jennings

Honeywell Inc.
Frank Whitsura

Hunt Refining Company
David Carroll

Huntsman Corporation
Douglas Culpin

INEOS Olefins & Polyolefins USA
Dennis Smith

Koch Industries, Inc.
David Dotson

LyondellBasell Industries
Kevin Brown

Marathon Petroleum Corporation
Gary Heminger

Marathon Petroleum Corporation
Richard Bedell

Martin Operating Partners
Keith West

Merichem Company
Kirk Novak

Monroe Energy, LLC
Graeme Burnett

Motiva Enterprises LLC
Dan Romasko

NALCO Champion
Terry Burleson

Northern Tier Energy GP, LLC
David Lamp

NOVA Chemicals Corporation
Nauhad Jamani

Occidental Chemical Corporation
Robert Peterson

Olin Chlor Alkali Products
John McIntosh

Oxea Corporation
Purnendu Rai

Pasadena Refining System, Inc.
Fernando Oliveira

PBF Energy Inc.
Thomas Nimbley

Philadelphia Energy Solutions (PES)
Philip Rinaldi

Phillips 66
Lawrence Ziemb

Placid Refining Company
Dan Robinson

SABIC
Khaled Almazyed

Sasol Chemicals (USA) LLC
Tim Bennett

Shell Chemical Company
Aamir Farid

Sinclair Oil Corporation
Clint Ensign

Solenis
Christopher Jobb

South Hampton Resources, Inc.
Simon Uphill-Brown

Styrolution America LLC
Steve Harrington

Suncor Energy, Inc.
Joseph Vetrone

Tesoro Corporation
Gregory Goff

The Dow Chemical Company
Douglas May

The International Group, Inc.
Ross Reucassel

The Linde Group
Raghu Menon

The Williams Companies
John Dearborn

Total Petrochemicals & Refining USA, Inc.
Philippe Doligez

TPC Group
Michael T. McDonnell

U.S. Oil & Refining Co.
Daniel Yoder

UOP LLC - A Honeywell Company
Rajeev Gattum

Valero Energy Corporation
Joseph Gorder

Valero Energy Corporation
Lane Riggs

Western Refining Company
Paul Foster

Westlake Chemical Corporation
Albert Chao

Wyoming Refining Company
James Runyan

EX-OFFICIO DIRECTORS

Roger C. Beach
Los Angeles CA

Kevin W. Brown
Houston TX

Robert H. Campbell
Coronado CA

Robert H. Chitwood
Tulsa OK

Duane Gilliam
Argillite KY

Johnson R. Hall
Ashland KY

Roger R. Hemminghaus
San Antonio TX

Mark E. Houser
Rockport TX

Mac Jordan
Kensington CA

William Klesse
San Antonio TX

James Mahoney
Wichita, KS

W. S. McComber
Rancho Santa Fe CA

F. C. Moriarty
Kerrville TX

Norman Phillips
Houston TX

Henry A. Rosenberg, Jr.
Baltimore MD

Robert Slaughter
Washington DC

Urvan R. Sternfels
Annapolis MD
INTERNATIONAL MEMBERS

Asahi Kasei Chemicals Corporation
Axion Energy
Federico Garcia Verdier
China Petrochemical Technology Company Limited
Zhong Yonggang
Consumers’ Co-operative Refineries Ltd
Gilbert Le Dressay
Delamine B.V.
Gert van der Knaap
Essar Oil Limited
Satheesan Vengallur
Evonik Corporation
Ronald Birnbaum
Grupo Idesa
Guillermo Gutierrez-Saldivar
Irving Oil Limited
IITOCHU Chemicals America Inc.
Satoshi Tojo
Kandla Energy and Chemicals Ltd.
Sanjay Rai
Marubeni America Corporation
Kazuki Aikawa
MEGlobal
Jim Ashworth
Mitsubishi International Corporation
Miya Kumar
Mitsui & Co., Ltd.
Yuichi Masuda
OMV Refining & Marketing GmbH
Alois Virag
Petroleum Limited
Christopher Chin Fatt
Petroleo Brasileiro S.A.
Geraldo Santos
PETROTRIN
Luke McSween
Reliance Industries Ltd.
Rajesh Prasad
Samsung C&T America, Inc.
Jin Kim
SK GS Americas Inc.
Grace Yun
Solvay
Tom Benner
Sumitomo Corporation
Jill Walters
UBE Industries (America), Inc.
Shin Kawasuso
Versalis S.p.A.
Stefano Soccol
A.T. Kearney, Inc.
Vance Scott
ABM Security Services
Craig Knecht
Advanced Refining Technologies
Scott Pumell
Alton Chemical Corporation
Laura Ruiz
Aggreko, LLC
Andre Paes
Air Liquids Large Industries
U.S. LP
Terry Humphrey
Airgas, Inc.
Steve Hope
Akzo Nobel Polymer Chemicals
Niek Stapel
Alla Laval Packinox
Thierry Sourp
Ali Tek Consulting
Christopher Schaffer
AliaxPartners LLP
Eric Hillenbrand
Allied Barton Security Services
Richard Michau
AltairStrickland, Inc.
Jeffrey Webber
Altro North America
Steve Gerca
Ambitech Engineering Corporation
Allan Koenig
Amec Foster Wheeler
Steve Beeston
Amerisafe Consulting & Safety Services
George Kaza
Apprion, Inc.
Sarah Prinster
Aramco Services Company
Donald Dunn
Argus Media
Kristin Klavers
ARI Environmental, Inc.
Larry Goldfine
ASM Catalysts, LLC
John Hutchinson
Astar Technology, Inc.
Karsten Harstad
Athlon Solutions
Michael McShan
Atlantic Methanol Production Co.
Edson Jones
Austin Industrial, Inc.
Stan Spears
Auterra, Inc.
Eric Burnett
Axens North America
Jean-Luc Nocca
AZZ WSI
Michael Welch
BAKER & O’BRIEN
John O’Brien
Baker Engineering and Risk Consultants, Inc.
Jeff Baker
Barr Engineering Company
Joel Trinkle
Bay Ltd.
Robert Blair
Bechtel Corporation
Jennifer Michael
Bercen, Inc.
Donald Murphy
BIC Alliance
Thomas Brinsko
Bouchard Transportation Co., Inc.
Morton Bouchard III
Brand Energy and Infrastructure Services
Joe Sadowski
Brenntag North America, Inc.
William Fidler
Brinderson, L.P.
Gary Wilson
Brick Group
Jeff Davis
Brown and Caldwell
Randy Kabrick
Burns & McDonnell
David Nosal
C&I Engineering
James Kerr
Campbell Fittings, Inc.
Thomas Pafel
CARBER
Chris Pettitt
CB&I
Scott Wiseman
Cenovus Energy Inc.
Robert Pease
CertifiedSafety, Inc.
Michael Brown
CH2M HILL
Samit Dave
Chemical Data
Charles Sievert
Chemium International Corporation
Thomas Holzmann
ChemTreat, Inc.
John Alcorn
CHEP - Catalyst & Chemical Containers
William Stacy
Chevron Lummus Global LLC
Frederick Lam
Chimec, S.P.A.
Luigi Ferranti
Clariant International Ltd
Robert Graupner
Clean Harbors
Environmental Svcs
Anthony Ierubino
CME Group
Chris LaRosa
Commercial Metals Company
Mark Elbacher
ConocoPhillips
William Buckner
Contract Fabricators, Inc.
Boye DeLashmit
Cooling Tower Depot, Inc.
Dennis Sheldon
Crystaphase Products, Inc.
John Glover
Cust-O-Fab, Inc.
Kevin Grady

ASSOCIATE MEMBERS

A.T. Kearney, Inc.
Vance Scott
ABM Security Services
Craig Knecht
Advanced Refining Technologies
Scott Pumell
Alton Chemical Corporation
Laura Ruiz
Aggreko, LLC
Andre Paes
Air Liquids Large Industries
U.S. LP
Terry Humphrey
Airgas, Inc.
Steve Hope
Akzo Nobel Polymer Chemicals
Niek Stapel
Alla Laval Packinox
Thierry Sourp
Ali Tek Consulting
Christopher Schaffer
AliaxPartners LLP
Eric Hillenbrand
Allied Barton Security Services
Richard Michau
AltairStrickland, Inc.
Jeffrey Webber
Altro North America
Steve Gerca
Ambitech Engineering Corporation
Allan Koenig
Amec Foster Wheeler
Steve Beeston
Amerisafe Consulting & Safety Services
George Kaza
Apprion, Inc.
Sarah Prinster
Aramco Services Company
Donald Dunn
Argus Media
Kristin Klavers
ARI Environmental, Inc.
Larry Goldfine
ASM Catalysts, LLC
John Hutchinson
Astar Technology, Inc.
Karsten Harstad
Athlon Solutions
Michael McShan
Atlantic Methanol Production Co.
Edson Jones
Austin Industrial, Inc.
Stan Spears
Auterra, Inc.
Eric Burnett
Axens North America
Jean-Luc Nocca
AZZ WSI
Michael Welch
BAKER & O’BRIEN
John O’Brien
Baker Engineering and Risk Consultants, Inc.
Jeff Baker
Barr Engineering Company
Joel Trinkle
Bay Ltd.
Robert Blair
Bechtel Corporation
Jennifer Michael
Bercen, Inc.
Donald Murphy
BIC Alliance
Thomas Brinsko
Bouchard Transportation Co., Inc.
Morton Bouchard III
Brand Energy and Infrastructure Services
Joe Sadowski
Brenntag North America, Inc.
William Fidler
Brinderson, L.P.
Gary Wilson
Brick Group
Jeff Davis
Brown and Caldwell
Randy Kabrick
Burns & McDonnell
David Nosal
C&I Engineering
James Kerr
Campbell Fittings, Inc.
Thomas Pafel
CARBER
Chris Pettitt
CB&I
Scott Wiseman
Cenovus Energy Inc.
Robert Pease
CertifiedSafety, Inc.
Michael Brown
CH2M HILL
Samit Dave
Chemical Data
Charles Sievert
Chemium International Corporation
Thomas Holzmann
ChemTreat, Inc.
John Alcorn
CHEP - Catalyst & Chemical Containers
William Stacy
Chevron Lummus Global LLC
Frederick Lam
Chimec, S.P.A.
Luigi Ferranti
Clariant International Ltd
Robert Graupner
Clean Harbors
Environmental Svcs
Anthony Ierubino
CME Group
Chris LaRosa
Commercial Metals Company
Mark Elbacher
ConocoPhillips
William Buckner
Contract Fabricators, Inc.
Boye DeLashmit
Cooling Tower Depot, Inc.
Dennis Sheldon
Crystaphase Products, Inc.
John Glover
Cust-O-Fab, Inc.
Kevin Grady
DEWright, Inc. David Wright
Distribution Now David Gaudenzi
Dorf Ketal Chemicals, LLC Downstream Advisors, Inc. Steven Graybill
Dresser-Rand David Vincent
DSM Chemicals North America David Quester
E-Vironment, LP Geoffrey Swett
EA Engineering, Science, and Technology, Inc. Brian Lesinski
Electronic Data, Inc. Jim Lindsay
Emerson Process Management Jerry Brown
ENVIROn International Corporation Andrew Edwards
Environmental Resources Management Carl Shaffer
Envisysystems Inc. Robert Schwichtenberg
EthosEnergy Field Services, LLC Steve Parish
Eurecat U.S. Incorporated Frederic Jardin
Evergreen Industrial Services Liz Huard
Excel Modular Scaffold Dylan Fulton
Fellon-McCord & Associates, LLC Brian Habacivch
Firestone Polymers Mark Rymer
Fisher-Klosterman Steve Forry
Flexitallic L.P. Jim Lenahan
Fluor Corporation Terence Easton
Gallup Tower Field Service Tim ReBeau
Gantrade Corporation IHS
GP Strategies Corporation Ron Faciane
GTC Technology US, LLC Chuck Fink
Guida, Slavich & Flores, P.C. Joseph Guida
Gulf Chemical & Metallurgical Corp. Jay Jaffe
Gulf Publishing - Hydrocarbon Processing John Royall
Gulfspan Industrial, LLC Jake Smalley
Hagemeyer North America - Technical Services Dale Rudloff
Hahn & Clay Don B. Sheffield
Haldor Topsoe A/S Hargrove Engineers + Constructors Ralph Hargrove
Hert Equipment Rental Corporation James Fiscus
HGEBERGER Compression Technology Carlos Carratu
HTI Jeffrey Gendler
Hunter Buildings & Manufacturing, LP Buddy Tucker
HydroChem LLC David Thompson
IAG Jon Moretta
ICIS Karl Bartholomew
ICL-IP America Anantha Desikan
IHS Brenda Lescarbeau
Industrial Insulation Group, LLC Joe Ortiz
Infineum USA L.P. Steve Benwell
Ingeniería Bill Waycaster
Innospec Fuel Specialties LLC Patrick McDuff
INOx Solutions Costantino Lanza
Intero Integrated Service Company LLC Gordon Hampton
InterAtlas Chemical Inc. Paul Boszak
Interchem USA Roberto Dahlgren
Intertek PARC
iMosaic Corporation Georges Melheim
J.J. White, Inc. James White
Jacobs Engineering Group Inc.
JCL Safety Services James Leifer
Johnson Matthey Process Technologies Kristin Parker
KBC Advanced Technologies, Inc. Andrew McMullan
KBR Doug Kelly
KH Neochem Americas, Inc. Toshiaki Fujima
Kiewit Amy Nussmeier
KiOR, Inc. John Kastbaum
Kirby Inland Marine, LP Kolinmar Americas, Inc. Rafael Aviner
KP Engineering, LP William Heinbaugh
KPMG LLP Regina Mayor
LANKESS Corporation James Raines
LBC Houston, LP Russell Crawford
Leidos Engineering LLC Robert Perry
Lewis Goetz Terry Subia
Liskow & Lewis Greg Johnson
Lucite International Inc. Robert Connelly
Lummus Technology, Inc. Helion Sardina
MAHLE Industrial Filtration Steve Franke
Masterark America Inc. Janet Jordan
Matheson Lori McDowell
Matrix Service Leslie Windler
McJunkin Red Man Corporation Elaine Michael
McKinsey & Company Khush Nariman
MEA INC Townes Comer
Meridian Inc. Jane Bailey
MERRICK & Company Peter Dixon
Middough Inc. Paul Riedl
Milestone Chemical Tankers America, Inc. Sammie Mooney
MISTRAS Group Inc. Sofiros Vahaviolos, PhD
Muse, Stancil & Company Neil Earnest
Nexant Inc. Bruce Burke
Nexidea, Inc. Philip Steed
Nooter Corporation Bernard Wicklein
North West Redwater Partnership (NWR) Mitchell Loughlin
Norton Engineering Consultants, Inc. James Norton
Novapex Pierre Luezeau
Odjell USA (Houston) Inc. David Ellis
Ohmstede Industrial Services, Inc. Brian Hinnenkamp
Oiltanking Bo McCall
Old World Industries, LLC James Bryan
Omni Vision International, Inc. Richard Park
Onis Inc. Serge Bonnefoi
Opportune LLP
OSTsoft J. Kennedy
PanFab Field Services Frank Wolfe
PCI Consulting Group John Dikeelboom
PCL Industrial Construction Co. Kent Free
PCS Sales Troy Enry
Pearson Watson Millican & Co. C. David Millican
PEI (Mercury & Chemical Services Group) Ron Radford
Pentair Valves & Controls Peyton Davis
Performance Contractors, Inc. Lee Jenkins
Perstorp Specialty Chemicals David Wolf
Petrochem Insulation, Inc. Brian Benson

AFPM’s comprehensive safety programs are focused on promoting occupational and process safety incident prevention in the petroleum refining and petrochemical manufacturing industries.

Advancing Process Safety
The goal of the Advancing Process Safety (APS) programs is to advance process safety improvements. These programs provide industry with more opportunities to communicate and share experiences and knowledge – vital components of our collective goal to improve process safety performance. Information on the programs is located at www.afpm.org/Safety-Programs.

Safety Statistics
For more than 30 years, AFPM has collected occupational injury and illness data from our members’ facilities in order to compile the AFPM Survey of Occupational Injuries & Illnesses. In 2011, AFPM began collecting facility data on Tier 1 and Tier 2 Process Safety Events to drive process safety performance improvements. This data is compiled into an annual AFPM Process Safety Event Statistics Report. Companies utilize the aggregated data in these reports as a vital tool in benchmarking their performance in both occupational and process safety.

Awards & Recognition
The AFPM Safety Awards Program honors member companies whose facility operations and contractors meet a level of excellence based on records kept for employees in accordance with the Occupational Safety & Health Administration (OSHA) record keeping requirements and ANSI/API RP 754 Process Safety Performance Indicators for the Refining and Petrochemical Industries.

The Distinguished Safety Award is presented each year to the facility or facilities that have attained a superior safety performance throughout the year and shown continuous improvement from previous years. This award, along with the others, is presented during the Safety Award Celebration held in conjunction with the National Occupational and Process Safety Conference each spring.

For more information or questions concerning the Safety Statistics, Awards Program or the National Occupational and Process Safety Conference, please visit the AFPM website at www.afpm.org/Safety-Programs.

Advancing Process Safety Process This! campaign material, below, engages facilities to participate in APS programs.

AFPM’s Advocacy group combines the Government Relations, Regulatory Affairs, Petrochemicals, Legal, Communications and Outreach Departments to work together to inform, educate and advocate to external audiences on behalf of AFPM members.

The Government Relations Department communicates with members of Congress and their staffs.

The Regulatory Affairs Department represents AFPM member interests before federal regulatory agencies and the Executive branch.

The Petrochemical Department promotes the petrochemical industry interests with a focus on public policy issues impacting petrochemicals manufacturing, shale natural gas production and workforce development. This department is also responsible for the development of the International Petrochemical Conference and the petrochemical statistical reports.

The Legal Department provides support to all AFPM advocacy activities and advances AFPM’s advocacy agenda through the federal and state courts.

The Communications Department works with the news media to publicize AFPM positions and activities, writes material for AFPM’s website and produces other written material about AFPM.

The Outreach Department works with AFPM members and their employees, along with groups and individuals around the country that support and want to advocate AFPM’s positions to government officials and other stakeholders at the local, state and federal levels.
INFORMATION RESOURCES

PUBLICATIONS
AFPM publications inform our members about industry statistics, technical innovations, environment and safety developments, security and many other relevant issues.

AFPM’s online store allows you to search technical papers and reports by keyword, author, and/or meeting and directly download to your computer. Learn more at www.afpm.org/publications.

Newsletters and General Publications
• Annual Report
• Daily Alert
• Fuel Line
• Green Room Report
• Security Watch
• Tech Update

Statistics
• Annual Survey of Occupational Injuries & Illnesses
• U.S. Refining Capacity Report
• Lubricating Oil and Wax Capacity Report
• Process Safety Event Report

Petrochemical Statistics Subscriptions
• AFPM Petrochemical Surveys – quarterly
• Selected Petrochemical Statistics Trade Data – monthly

Technical Papers
• Annual Meeting Papers
• Reliability & Maintenance Conference Papers
• Environmental Conference Papers
• National Occupational and Process Safety Conference Papers
• Clean Fuels Challenge Papers
• Plant Automation and Decision Support Conference Papers
• International Lubricants & Waxes Conference Papers

Transcripts
• Q&A and Technology Forum
• Biennial Cat Cracker Seminar Q&A

COMMUNICATIONS
Through a combination of traditional and social media outlets, AFPM reaches the press, policymakers and the public to educate them on the facts about our industry’s work and value and to inform member company employees about important issues impacting the industry.

AFPM has increased its media visibility and rapid response campaigns across print, online, radio and television outlets, including AFPM TV.

AFPM also has an active social media program that includes Twitter, LinkedIn and Facebook, as well as the Petro Primer Blog at blog.AFPM.org.

AFPM Petro Primer
blog.afpm.org

@AFPMonline

AFPMOnline
AFPMmeetings

american-fuel-&-petrochemical-manufacturers-afpm-
AFPM is widely recognized for organizing national conferences and meetings held annually that are devoted to examining the critical issues facing fuel and petrochemical manufacturers. These comprehensive, information packed meetings offer a wide array of opportunities for member participation from all levels of company personnel.

In addition to the annual line-up of conferences, AFPM periodically hosts meetings on timely topics, alone or in conjunction with government agencies, other trade associations and industry groups.

Each meeting focuses on a different discipline and is organized around general sessions, panel discussions, workshops, roundtable discussions, vendor exhibitions and numerous networking activities.

At the meetings, critical information and industry practices are exchanged to help members meet the challenges of modern business. Specific program information on AFPM’s meetings may be found at www.afpm.org/meetings.

### Annual Meeting
Marriott Rivercenter
San Antonio, Texas
March 22 – 24, 2015

### Reliability & Maintenance Conference and Exhibition
Austin Convention Center
Austin, Texas
May 19 – 22, 2015

### International Petrochemical Conference
Grand Hyatt
San Antonio, Texas
March 29 – 31, 2015

### Board of Directors Meeting
Stein Eriksen Lodge
Park City, Utah
September 20 – 22, 2015

### MEETING SPONSORS
Special thanks to our meeting sponsors whose generosity and engagement help AFPM to deliver the highest quality meetings to attendees.

**Platinum**
- CB&I
- Total Safety U.S., Inc.

**Gold**
- Athlon Solutions
- IHS

**Silver**
- Allied Barton Security Service
- BP
- DorfKetal/Solinas
- ERM
- Hargrove Engineers + Constructors
- Phillips 66
- URS

**Bronze**
- All4 Inc.
- Aspen Technology Inc.
- Baker Botts LLP
- Baker Hughes
- Clean Harbors Environmental Svcs
- Dorf Ketal Chemicals, LLC
- ExxonMobil Lubricants and Specialties
- Fluor Corporation
- Leidos Engineering LLC
- Matheson
- Matrix Service
- Merichem
- MISTRAS Group Inc.
- Oxiteno S.A.
- Saudi Aramco
- WorkForce Software
- Yokogawa
Security Conference
Omni Royal Orleans Hotel
New Orleans, Louisiana
April 13 – 15, 2015

Labor Relations/
Human Resources Conference
Omni Royal Orleans Hotel
New Orleans, Louisiana
April 16 – 17, 2015

National Occupational & Process
Safety Conference and Exhibition
Hyatt Regency Austin
Austin, Texas
May 12 – 13, 2015

Q&A and Technology Forum
New Orleans Marriott
New Orleans, Louisiana
October 4 – 7, 2015

Environmental Conference
Grand America
Salt Lake City, Utah
October 18 – 20, 2015

International Lubricants &
Waxes Conference
Hilton Post Oak
Houston, Texas
November 12 – 13, 2015

We also thank the following sponsors for their conference support:

Albemarle
Barr Engineering Company
BASF Corporation
BIC Alliance
Burns & McDonnell
CITGO Petroleum Corporation
EA Engineering, Science, and Technology, Inc.
ExxonMobil Research & Engineering
G4S
Gallop Tower Field Service
GE Water & Process Technologies

Heritage Environmental Services
Honeywell Process Solutions
Hydrocarbon Processing
JCL Safety Services
KBR
Lockton Dunning Benefits
Sage Environmental Consulting
Schneider Electric
Tesoro Corporation
Trihydro Corporation
Trinity Consultants, Inc.
The AFPM Board of Directors relies on the counsel and support of experts among its membership to accomplish specific Association functions and plan for the Association’s future. There are 20 standing committees that serve to assist the Board in achieving AFPM’s goals.

Please visit the AFPM website for a complete description of all committees and their rosters at www.afpm.org/committees.

The Issues Committee advises the Executive Committee and provides direction and guidance to AFPM staff on current policy issues important to the refining and petrochemical industries. Chair: Lawrence Ziemba, Phillips 66 AFPM Secretary: Brendan Williams

The Associate Steering Committee provides a forum for the Association’s contractors, suppliers, vendors and consultants, to communicate with the Board of Directors on items of mutual interest and support. Chair: Jeff Davis, Brock Group AFPM Secretary: Susan Yashinskie

The Communications Committee shares information, ideas and communications strategies to increase support by external audiences for policy positions established by the Executive Committee and adopted by the AFPM Board. Chair: Jim Temple, Ergon, Inc. AFPM Secretary: Diana Cronan

The Environmental Committee provides a forum for members to exchange views and discuss environmental activities and advises the AFPM Board and staff on current environmental laws/regulations. Chair: Steve Moyer, HollyFrontier Corporation AFPM Secretary: David Friedman

The Fuels Committee provides information and policy recommendations concerning legislative, regulatory and motor fuel specification developments. Chair: Fred Walas, Marathon Petroleum Corporation AFPM Secretary: Tim Hogan

The Government Relations Committee serves as the principal forum for sharing information, ideas and strategies on legislative and regulatory issues important to the refining and petrochemical industries. Chair: Stephen Brown, Tesoro Corporation AFPM Secretary: Geoff Moody

The Legal Committee provides legal and litigation strategy recommendations to advance the interests of the Association membership. Chair: Steven Schell, Chevron U.S.A. Inc. AFPM Secretary: Rich Moskowitz

The Labor Relations & Human Resources Committee facilitates the exchange of information on matters related to industrial and labor relations, human resources practices and collective bargaining. Chair: J. Mark Spencer, Hunt Refining Company AFPM Secretary: Daniel Strachan

The Lubricants & Waxes Committee provides oversight and assistance on matters related to automotive oils, lubricants and waxes. Chair: Janet Jordan, Masteran America Inc. AFPM Secretary: Daniel Strachan

The Waxes Subcommittee promotes the benefits of current and new wax uses and technologies to the marketplace as well as issues related to the safe handling transportation and specifications of petroleum wax. Chair: Greg Vascik, HollyFrontier Corporation AFPM Secretary: Daniel Strachan

The Maintenance Committee promotes the exchange of technical information and proven practices on reliability, maintenance, inspection, procurement, project engineering and turnarounds. Chair: Brad Hase, Flint Hills Resources, LP AFPM Secretary: Gordon Robertson

The Exhibitor Subcommittee provides overall support to the Reliability & Maintenance Conference exhibits by reviewing booth layouts and providing recommendations for continuous improvement of the show. Chair: Tobie Craig, Turner Industries Group AFPM Secretary: Helen Kutska
The **Manufacturing Committee** provides technical support and recommendations on matters that affect facility operations and products including federal, state and local laws and regulations.

**Chair:** James Stump, HollyFrontier Corporation  
**AFPM Secretary:** Jeff Hazle

The **Petrochemical Committee** advises the AFPM Board and staff on current issues of importance to the petrochemical industry.

**Chair:** Richard Rennard, Arkema Inc.  
**AFPM Secretary:** Melissa Hockstad

The **Petrochemical Statistics Subcommittee** advises and assists the Petrochemical Committee and AFPM staff on matters pertaining to the collection and dissemination of statistics on petrochemical, including trade, production and inventories.

**Chair:** Paige Sommer, INEOS Olefins and Polymers USA  
**AFPM Secretary:** Melissa Hockstad

The **Plant Automation & Decision Support Committee** focuses on sharing practical experience with the application management, and integration of computing technology in areas including process control and automation, modeling, real-time optimization and Internet-based applications.

**Chair:** Blake Larsen, Western Refining Company  
**AFPM Secretary:** Daniel Strachan

The **Safety and Health Committee** provides a forum for members to exchange views and share occupational and process safety best practices and developments in safety related legislation and regulation.

**Chair:** Robert Bahr, Exxon Mobil Corporation  
**AFPM Secretary:** Lara Swett

The **Industrial Hygiene Subcommittee** provides a forum for the exchange of information on industrial hygiene, regulatory and legislative trends and developments as well as other matters concerning industrial hygiene standards and practice.

**Chair:** Kurt Church, Sinclair Oil Corporation  
**AFPM Secretary:** Daniel Strachan

The **Security Committee** solicits and assembles recommendations on security-related practices and policies, standards and guidelines, and regulatory and legislative trends and ensures recommendations receive consideration by appropriate governmental bodies, industry or trade groups.

**Chair:** Lance Boyer, BP  
**AFPM Secretary:** Jeff Gunnulfsen

The **Cyber Security Subcommittee** provides information and recommendations on matters pertaining to cyber security and cyber threats.

**Chair:** Jason Bottjen, Valero Energy Corporation  
**AFPM Secretary:** Daniel Strachan

**Gain the full benefit of AFPM membership; join a committee and get involved.**
AFPM represents nearly all U.S. petroleum refiners and petrochemical manufacturers, as well as hundreds of industry contractors and service companies. New memberships are available.

Join today and take advantage of:

- Technical knowledge, expertise and programs to boost your business
- Networking opportunities with peers and industry leaders to share insights and best practices
- Advocacy and outreach efforts to achieve our shared objective of continued growth and prosperity for all Americans

To find out more, contact LaToya Blackburn at:
membership@afpm.org
202.457.0480
www.afpm.org/benefits-of-membership