



# MeetingPreview

## SPRING MEETING AND GLOBAL CONGRESS ON PROCESS SAFETY, MAR. 30 – APR. 3, IN NEW ORLEANS

A new topical conference devoted to the hot topic of shale gas and tight oil, special programs spotlighting the progress made within the process safety community, and a new luncheon are just a few of the opportunities to learn and collaborate at AIChE's 2014 Spring Meeting and 10th Global Congress on Process Safety (GCPS). This year, the conference returns to the spirited city of New Orleans, LA, with programs taking place at the Hilton New Orleans – Riverside from Mar. 30 to Apr. 3. The meeting will explore a gamut of topics essential to practicing engineers across a spectrum of industries. The complete program and registration information are available at [www.aiche.org/spring](http://www.aiche.org/spring).

Keeping up with the rush of new technologies and the emerging challenges presented to engineers and the societies they serve, AIChE's Spring Meeting and GCPS have continued to grow in stature and influence. More than 2,400 practitioners from 50 countries, representing industry, academia, and government agencies, are expected to attend the New Orleans meeting. In addition to the topical conferences and the Global Congress, the meeting's organizers are striving to meet the broad needs of practicing engineers. Meeting attendees can hone their skills at short courses, reunite with friends and colleagues (old and new), and gain process safety insight that they might not obtain elsewhere. Young professionals and undergraduates, too, will find sessions designed to help them develop career skills and build connections within the profession. Receptions, exhibits, poster sessions,



▲ St. Louis Cathedral, the oldest cathedral in North America, rises above Jackson Square, the gateway to New Orleans's French Quarter. Photo by Sam Strickler.

and social events will round out the meeting program — with the nearby New Orleans French Quarter adding atmosphere and considerable liveliness to the experience.

### Topical conferences

The 2014 Spring Meeting consists of 150 sessions across eight topical conferences and special program tracks.

The newest of these program tracks — and one especially pertinent to the chemical engineering community — is AIChE's first **Shale Gas and Tight Oil Topical Conference** (see sidebar below), which will incorporate more than a dozen sessions including a highly anticipated panel discussion on Tuesday, Apr. 1.

Several topical conferences are returning to the Spring Meeting after a successful launch in 2013. The **Manufacturing in the 21st Century** conference will examine system design and technology improve-

### SHALE GAS AND TIGHT OIL TOPICAL CONFERENCE

Few topics are more timely for the chemical engineering community than the emergence of shale resources on the world energy scene, particularly in the Americas. It is fitting that the Spring Meeting's newest topical conference is devoted to an examination of the technology, economics, operations, and regulatory issues surrounding shale gas and tight oil reserves.

This first shale topical conference will consist of more than a dozen sessions, exploring the techniques, design challenges, and operating procedures (including water treatment and conservation) involved in the extraction and handling of light tight oil (LTO) and shale gas. A highlight of the conference will be a panel discussion on Tuesday morning, Apr. 1, dedicated to the recent and rapid growth and development of LTO and shale gas. Moderated by Joseph Powell, Chief Scientist at Shell Global, the panel of experts will examine process safety considerations and the challenges involved in the safe extraction, transport, and processing of shale resources into fuels and petrochemicals. The panelists will include Brian Kelly, Process Safety Consultant; Larry Kremer, Senior Technology Advisor at Baker Hughes; Robert Loughney, Senior Consultant at Blue Marble Risk Solutions; and Charles McConnell, Executive Director of the Energy and Environment Initiative at Rice Univ.

Also on Apr. 1, at a Shale Topical Luncheon, communication expert TJ Larkin will present a talk entitled "Shale Oil and Gas: Don't Let Communication Mistakes Cause an Accident," in which he will illustrate ways to make industrial operating procedures more understandable and effective, and how to use those procedures to change frontline behavior.

For a run down of all of the shale topical sessions, visit [www.aiche.org/spring](http://www.aiche.org/spring).



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ments aimed at safer and more-secure operation of hot-oil process-heating systems and other manufacturing operations. A highlight of the **Emerging Technologies in Clean Energy in the 21st Century** conference will be a keynote address by Ramon Gonzalez, Program Director at the U.S. Advanced Research Project Agency for Energy (ARPA-E), on the evening of Tuesday, Apr. 1. Gonzalez will discuss industrial biotechnology, highlighting bio-conversion and bioelectrosynthesis techniques for the production of liquid fuels. The **2nd International Conference on Upstream Engineering and Flow Assurance** will include sessions that examine multiphase flow, hydrates, waxes and asphaltenes, and process safety in the upstream industry.



▲ Gonzalez

At the **14th Topical Conference on Gas Utilization**, attendees will learn about the latest techniques in gas conversion, gas separation, and gasification, and discuss unconventional oil and gas resources. As part of this conference, on Wednesday, Apr. 2, Harri Kytomaa, Corporate Vice President at Exponent, will deliver a luncheon keynote address on the past, present, and future of liquefied natural gas (LNG), including



▲ Kytomaa

safety and regulatory challenges in today's LNG value chain.

The **17th Topical Conference on Refinery Processing** will present strategies for optimizing refinery operations, and will include information about advances in biofuels, biocatalysts, and renewable fuels. Sessions will also explore hydro-processing technology and the impact of shale sources on the refining industry. The **26th Ethylene Producers' Conference** will offer a forum for the examination of industry case studies and the sharing of best practices. At the **Distillation Symposium**, attendees will learn about design improvements and troubleshooting of distillation columns, and methods that lead to greener processes.

### Special Events

The Spring Meeting and GCPS will formally kick off on Monday morning, Mar. 31, with an opening **Keynote Address** by William F. Banholzer, retired Chief Technology Officer of the Dow Chemical Co. In his talk, entitled "Possible vs. Practical: Engineers Must Lead the Development of Practical Technologies," Banholzer will present examples of how the fundamentals of chemical engineering can be used to identify practical solutions to energy and water issues, and explain why the venture capital model struggles in the materials market.



▲ Banholzer

The **Fuels and Petrochemicals Div. Welcome Session** (Monday morning, Mar. 31) will feature a keynote speech by Peter Piotrowski, Senior Vice President and General Man-



▲ Piotrowski



ager at UOP. Piotrowski will discuss opportunities in the chemicals and energy industries.

The **Process Development Div.'s Plenary Session** (also on Monday morning) will feature a roster of presenters. John Dowdle, Senior Engineer at Dow Chemical, will introduce the session with his talk, "Improving the Speed and Representation of Physical Properties Regression." Joseph Powell, Chief Scientist at Shell, will discuss shale gas and the history of C1 chemistry. Jack Hipple, an AIChE director and Principal at TRIZ and Engineering Training Services, LLC, will talk about the use of the patterns of invention found in the patent literature to predict disruptions in the patenting process. Finally, Michio Higashijima, Technology Sales Manager at Mitsubishi Chemical Corp., will discuss the company's advanced technology for on-purpose butadiene production.

The Spring Meeting is expanding its networking opportunities at a variety of luncheons. For example, at a **Networking Luncheon** on Monday, Mar. 31, tables will be labeled by engineering specialization, and guests from diverse backgrounds can choose where they would like to sit. Additional networking opportunities will include a dual-format **Poster**



**Session** and cocktail reception, jointly sponsored by the Spring Meeting and Global Congress on Process Safety, on Monday, Mar. 31.

Other events that serve a diversity of interests will include a Young Professionals Social (Sunday evening, Mar. 30), a panel discussion on work-life balance sponsored by the Women's Initiatives Committee (Mar. 31), a reception for AIChE volunteer leaders (Mar. 31), a Chinese-American Chemical Society Banquet (Mar. 31), an AIChE Fellows Breakfast (Apr. 1), and a Spring Meeting program for undergraduate students, to name just a few activities.

## The 10th Global Congress on Process Safety

Now in its tenth year, the Global Congress on Process Safety (GCPS; [www.aiche.org/gcps](http://www.aiche.org/gcps)) is the world's largest gathering of process safety professionals. Organized by AIChE's Center for Chemical Process Safety (CCPS) and Safety and Health Div., the GCPS invites participants to join an ongoing dialogue devoted to exploring new ways to avoid incidents, manage risk, ensure plant safety, and strengthen process-safety-management (PSM) programs.

The GCPS integrates the sessions of three major conferences. The **29th CCPS International Conference** will identify emerging process safety issues and show how the latest PSM

techniques can be applied to those challenges. Attendees will examine topics such as hazard identification and risk assessment, process safety culture, stakeholder outreach, and facility siting management. The **48th Loss Prevention Symposium** will bring together practitioners from industry, academia, and government agencies to share technological advances in process safety, techniques for explosion prevention and fire protection, and lessons learned from incident investigations. At the **16th Process Plant Safety Symposium**, attendees will consider the future of process safety, regulatory impacts, and the methods and tools that can be applied at the plant level.

Another program track is the third installment of the **Process Safety Management Mentoring (PSM<sup>2</sup>) Forum**, where process safety professionals at all levels can share their experiences and knowledge to help ensure the continuity of the profession and the safety of industrial plants. The PSM<sup>2</sup> Forum focuses on young practitioners and those new to the world of process safety.

To help celebrate the 10th Anniversary of the GCPS, a **Global Congress on Process Safety Banquet** will be held on Sunday, Mar. 30. At the banquet, representatives from the process safety community will reflect on the past decade of accomplishments in the field, including the productive partnerships that have been nurtured through the programs of the Global Congress. Another anniversary-year highlight is a group of **Process Safety Spotlight** sessions, featuring a selection of the best papers from past GCPSs, as well as process safety sessions incorporated into the topical conferences on shale gas and upstream engineering.

From Monday, Mar. 31, to Wednesday, Apr. 2, the GCPS will also feature highly regarded luncheon

speakers: Bea Ponnudurai, Head of the Group HSE Div. at PETRONAS (South Africa); Luke Kissam, Chief Executive Officer at Albemarle; and Jordan Barab, Deputy Assistant Secretary of Labor for the U.S. Occupational Safety and Health Administration.

The Global Congress is also offering some sessions conducted in Portuguese and Chinese, as well as a Spanish-language panel discussion, to give native speakers of those languages a chance to hear and present papers in their own language.

In addition, the GCPS is hosting short courses on Sunday, Mar. 30, and a Chemical Engineering Safety Education Workshop for faculty and graduate students.

## Follow the activities online

AIChE will post updates on its social media channels throughout the Spring Meeting. News, photos, videos, and coverage of special events and keynote speakers will be available on ChEnected, AIChE's online community blog: [www.chenected.com/spring](http://www.chenected.com/spring); on Facebook: [www.facebook.com/chenected](http://www.facebook.com/chenected); and via Twitter feeds: @chenected. The hashtags are #AICHESpring and #GCPS. 



▲ Ponnudurai



▲ Kissam



▲ Barab

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Register online for AIChE's Spring Meeting and 10th Global Congress on Process Safety at [www.aiche.org/spring](http://www.aiche.org/spring).