SPE’s Contributions to the Upstream Process Safety Dialogue

“They may not understand what we do but they understand when we create harm.”

Shakeel H. Kadri - Executive Director, of CCPS
June 23, 2017
SPE has Grown with the Industry

1871  American Institute of Mining Engineers (AIME) forms in Pennsylvania
1913  AIME creates oil and gas committee
1957  Officially founded as SPE
1985  SPE incorporates separately
1991  SPE Conducts First International HSE Conference in The Hague, The Netherlands
1993  Jacques Bosio – first non-US president
1996  DeAnn Craig – first woman president
2002  First HSSE-SR Technical Director joins the SPE International Board of Directors
2007  SPE celebrates 50-year anniversary. OnePetro launched.
2013  PetroWiki is launched with the full contents of the Petroleum Engineering Handbook in a wiki for members to update.
2014  Approximately 5,000 SPE members identify as HSSE-SR professionals
2015  SPE membership grows to 168,000 (including students)
2015  SPE Defines Process Safety

MISSION: To collect, disseminate, and exchange technical knowledge and to provide opportunities for professionals to enhance their technical and professional competence.
Process Safety - A disciplined framework for managing the integrity of hazardous operating systems and processes by applying good design principles, engineering, and operating and maintenance practices.
SPE is Unique

- SPE is the largest individual-member organization serving managers, engineers, scientists and other professionals worldwide in the upstream segment of the oil and gas industry.
- Global not-for-profit society; non-advocacy is a core philosophy
- Exists mainly for the benefit of members, who are the owners and our major customers
- The technical content for programs is developed mainly by members
- Volunteerism is key to SPE’s success
- We are operating an organization in which the owners, workers, and customers are all the same people:

  *SPE members*
Health, Safety, Security, Environment and Social Responsibility
Comprises core HSE topics, as well as research and sustainability issues. Specializations are covered through workshops, publications, and international HSE conferences held in both the US and abroad. Technical sections include: Human Factors, Sustainable Development, and CCUS.
How SPE Disseminates Technology

Connecting Members
- Global conferences and meetings
- Online technical communities

Sharing Technical Knowledge
- Magazines (Including HSE Now)
- OnePetro
- PetroWiki
- Technical Reports
- Peer-reviewed journals

Informing the public about our Industry

- 230,000 followers
- 41,000 followers
- 16,700 followers
- 10,100 followers
- 3,800 followers
Originally launched in 2007, OnePetro has become one of the premier research and discovery tools for oil and gas professionals worldwide.

About 47,000 documents reference safety and about 35,000 documents reference process safety

Contains over 190,000+ conference papers, journal articles and presentations specific to oil and gas.

- 25+ current and historical industry respected journals
- Full proceedings from 50+ leading industry conferences worldwide
- Historical archives back to 1885
- Also includes standards, reports, presentations, ancillary documents and book chapters.

With contributions from 18 publishing partners OnePetro provides easy access to oil and gas scientific research through a growing portfolio of products including its full-text aggregation.
HSE Now exists outside of the SPE Member firewall and is available to any interested HSE Professional

- Curated and original content, with a ratio of approximately 70/30

- Eight sections—Exclusive Content, Health, Safety, Security, Environment, Social Responsibility, Regulations, and Sustainability

- Biweekly emails alerting recipients of new content sent to more than 5,000 people

- More than 1,000 page views per week on average
Published Technical Reports

• Assessing the Processes, Tools, and Value of Sharing & Learning from Offshore E&P Safety-Related Data (SPE-182847-TR)
• Guidance for Decision Quality for Multi-Company Upstream Projects (SPE-181246-TR)
• Calculation of Worst-Case Discharge (WCD) (SPE-174705-TR)
• The Human Factor: Process Safety and Culture (SPE-170575-TR)

Pending Technical Reports

“Getting to Zero” Technical Report – (Target Date March 2017) Between 2009 and 2016, the Society of Petroleum Engineer’s (SPE) facilitated several workshops to develop ideas for future advancement of Safety in the industry. The workshops brought together Safety leaders from a variety of companies to discuss a simple question: How can we achieve zero harm? Overall, about 850 members participated in the discussions and a technical report is in the final stages of development.

Proposed Technical Reports

• SIMOPS
“Process Safety - A disciplined framework for managing the integrity of hazardous operating systems and processes by applying good design principles, engineering, and operating and maintenance practices.” – SPE, January 2015

- Process Safety Steering Committee chaired by John Karish.
- June 2017 “Process Safety Cross Roads” meeting bringing together 50 organizations and individuals working in the field of process safety. Key needs:
  - Process safety case studies tailored for upstream applications/scenarios.
  - Process Safety Training Courses.
  - Develop practical guidance to assist companies with implementation (including addressing the perceived gap between the front line and back office).
- Human Factors Technical Section (approximately 1,200 members) chaired by Phil Grossweiler.
Special Projects

- **United Engineering Foundation Grant Project** – Developing a series of three videos with AIChE to increase risk awareness for educational outreach to key stakeholders including: high school STEM Students; general public and community; and, first responders. These videos will be prepared so that they can be used for global distribution. Examples include:
  - Everyday risks and how we make decisions based on personal risk analysis (e.g. driving a car).
  - Personal risks and benefits for stakeholders dealing with or working in different industries.
  - Risks of different type of engineering work and what is done to manage those.

- **“Near Miss Workshop” with BSEE** – Spring 2016 Workshop to develop near miss reporting framework

- **Upstream Safety Conference** – Evaluating a potential annual meeting as a vehicle to convene sister organizations in a multi-party collaboration event. Also evaluating a Multi-discipline SIMOPS Workshop

- **Upstream Process Safety Book** – a collaboration between AIChE and SPE.