

CCPS Membership

Presentation for Canadian Regional Meeting

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About CCPS

- CCPS is a technical entity of the American Institute of Chemical Engineers [AIChE]
- CCPS is a not-for-profit membership organization supported by global corporate members - focused on process safety
- CCPS currently has 221 members (60% North America, 40% International)
- CCPS was started on 23 March 1985, in response to the Bhopal Union Carbide tragedy, to lead a collaborative effort to eliminate catastrophic process safety incidents.
 - In February, industry leaders asked AIChE to lead a collaborative effort to eliminate catastrophic process incidents.
 - On March 23, 1985 AIChE formed the Center for Chemical Process Safety
 - 10 Companies initially joined
- CCPS is headquarters is in New York City, with regional offices around the world
 - Mumbai, Frankfurt, Houston, China.

CCPS Canadian Members



Berkshire Hathaway
Specialty Insurance™



"The Global Community Committed to Process Safety"

Welcome to Organizations in Attendance

- ABS Engineering
- ACM Facility Safety
- Aegis Risk Management Solutions
- Alberta Energy Regulator
- Aon Energy Risk Engineering (M)
- Atkins
- AXA XL Specialty Insurance
- BBA
- Canadian Natural Resources, Ltd. (M)
- Cenovus Energy
- CF Industries (M)
- Chemical Institute of Canada
- Chevron Canada (M)
- Clearsky Risk Management
- CNOOC Petroleum NA ULC (M)
- Conoco Phillips
- Dupont (M)
- Enbridge
- GCM Consultants
- Husky Energy (M)
- Inter Pipeline (M)
- J. P. Lacoursière Inc.
- National Energy Board
- Nova Chemicals Corporation (M)
- North West Redwater Partnership (M)
- Paramount Resources
- Parkland Refining (BC) Ltd. (M)
- PetroChina Canada
- Plains Midstream Canada ULC
- Resolute Risk Management Services
- Rio Tinto
- Risktec Solutions Canada
- Shell Canada Ltd. (M)
- Strathcona County
- Suncor Energy
- Syncrude (M)
- University of Alberta/Univ of Sherbrooke

2019 New Members

United States (7)

-  Calumet Specialty Products Partners
-  Corteva Agriscience
-  Elanco Animal Health
-  Engineering Planning & Management, Inc.
-  Solano County Dept of Resource Mgmt.
-  Tronox
-  W.R. Grace & Co.

Canada (2)

-  CNOOC International
-  North West Redwater Partnership

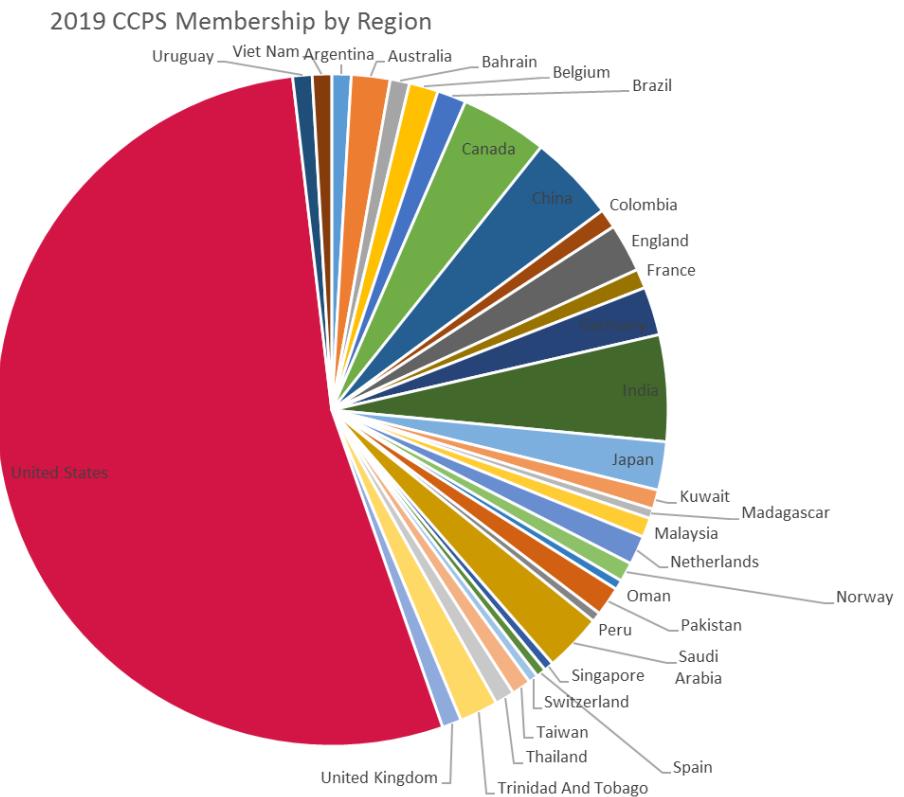
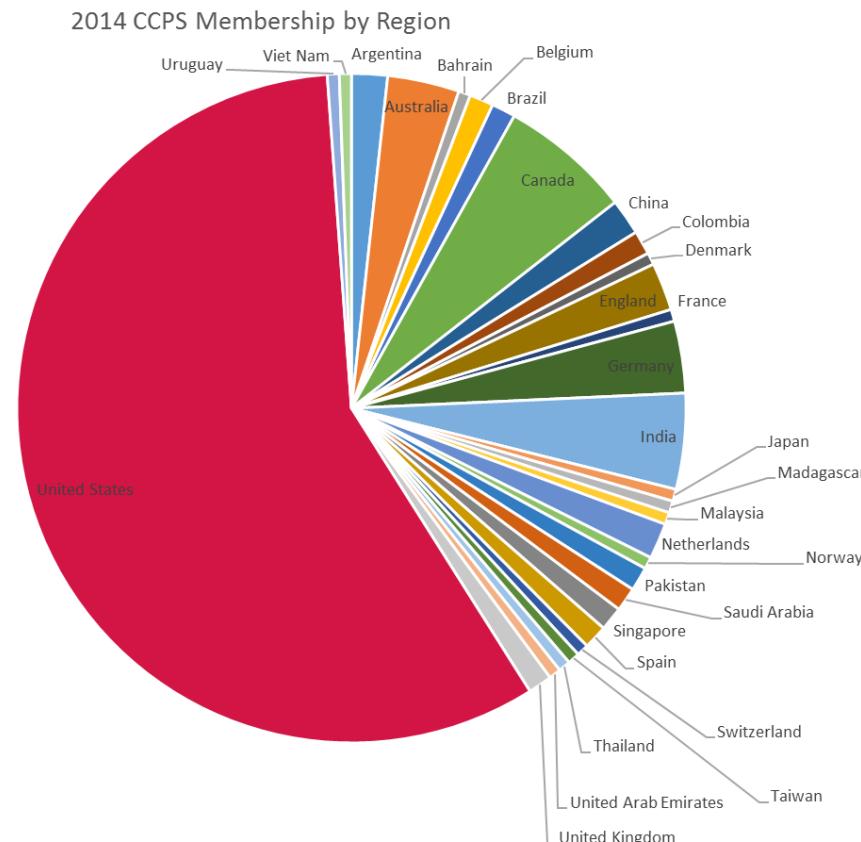
International (16)

-  Aon Energy & Risk Engineering (England/Canada)
-  Bazan Group (Israel)
-  CNOOC China National Offshore Oil Corp.
-  Equate Petrochemcial Co. (Kuwait)
-  India Glycols Limited (Chemical Segment)
-  ONGC Petro Additions Limited (OPAL) (India)
-  Petro Rabigh (Saudi Arabia)
-  Sajjan India Ltd (India)
-  Sphera Solutions (UK)
-  Taiyo Oil Company (Japan)
-  TUV Rheinland (Shanghai) Co. Ltd
-  TUV Rheinland (Taiwan) Co. Ltd.
-  Usiminas (Brazil)
-  Vale; Brazil
-  Vale; New Caledonia
-  World Steel Assoc. (Belgium)

2019 Membership Review

- 25 new members have signed up as of September 2019
 - First new member in Israel
 - Increasing membership in Brazil due to significant personal outreach
 - Continued growth in India
 - 2 new companies in Europe, shows promising expansion in that region
 - 1st Steel Association joined CCPS, connections being made with other steel orgs as a result
- Increased mergers and acquisitions in 2019
 - 8 companies to date; of those CCPS:
 - Maintained membership with 4 of the acquiring companies (already CCPS members)
 - Acquired 3 new companies
 - Lost 1 company in the acquisition (did not acquire new company)
- Retention continues to stabilize; 95% to date
- Our new membership pipeline is strong around the globe

CCPS Membership Growth [2014 @173 – 2019 @221]



Observations [2014 to 2019]

- General observations
 - 22% growth in CCPS membership globally
 - USA membership growth = 15%
 - Rest of the world growth = 37%
- Growth observations
 - China 
 - Japan 
 - Saudi Arabia 
 - Trinidad & Tobago 
 - India 
 - USA 
 - Canada 
 - Latin America 
 - Europe 
 - Australia 

221 CCPS Members Strong

Data as of 9.9.19



Global News



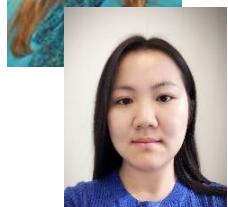
Membership

- +25 members in 2019 --- 221 total members to-date
- 95% of the budgeted 2019 membership dues received
- Handles all North American Recruitment & worldwide retention
- Executes details for Canadian and US TSC Meetings



Technical

- 2020 Project Planning effort underway
- Technical lead – RBPS Maturity + RBPS Benchmarking + SACHE
- Global TSC Web Conference 9/18 2019
- 16th GCPS Planning + 2019 China Conference and China TSC



Projects

- Over 30 ongoing projects / programs
- Two guideline books out, three more are planned
- CCPS Credentialing / UPSLI



CCPS Membership Benefits

Process Safety Incident Database (PSID)

- Also known as “Lessons-Learned Database”
- Collection of 800+ learning's from incidents and near-misses
 - All incidents are posted anonymously upon entry
- Useful for hazard analysis, incident investigation, process design, and training
- All CCPS Members receive PSID access as a membership benefit at no cost (except gov. agency members)

Process Safety Beacon
<http://www.aiche.org/CCPS/Publications/Beacon/index.aspx>

Sponsored by
CCPS
Supporters

Containment Dikes and Pads June 2010

Most people recognize that containment dikes around storage tanks, and sloped containment pads for pumps, process buildings and structures, truck and rail car unloading areas, and other potential spill locations have an important environmental protection function – preventing contamination of soil and surface water. But, do you know that they often also have important safety functions? Some examples include:

- limiting the spread of a fire and preventing exposure of other equipment if a flammable material spills and is ignited
- preventing contact of incompatible reactive materials in case of leak or spill
- limiting the spread of spilled corrosive material and preventing contact with equipment which could be damaged by contact with the corrosive material

In 2001, the US Chemical Safety and Hazard Investigation Board (CSB) investigated a fire that destroyed a petroleum blending facility in Texas. Poor dike design and maintenance resulted in burning liquid spreading the fire from tank to tank, eventually engulfing the whole plant.

What can you do?

- Periodically include containment dikes around storage tanks, sloped containment areas, and drainage trenches as part of your routine plant safety inspections. Look for physical damage, spilled material, accumulation of rain water in dikes, or blocked drainage. Look for debris, equipment, or anything which restricts flow of a spill.
- Make sure that your plant procedures include pumping out or draining rain water from containment dikes – if a dike is partly filled with rain water, it may not be able to contain a large spill.
- If you have any kind of valves or other piping to remove rain water from a containment dike, make sure these are closed or otherwise blocked when not being used.
- If you do any maintenance or construction work on a storage dike which results in damage to the integrity of the dike, make sure the damage is repaired before the job is finished.

Inspect and maintain your containment dikes and pads!

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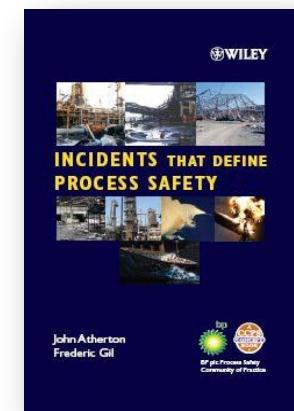
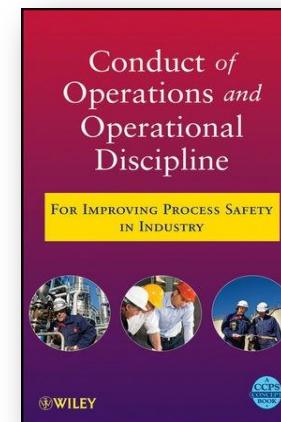
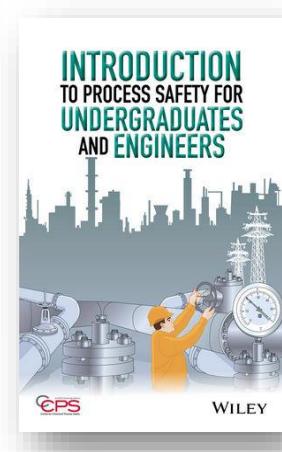
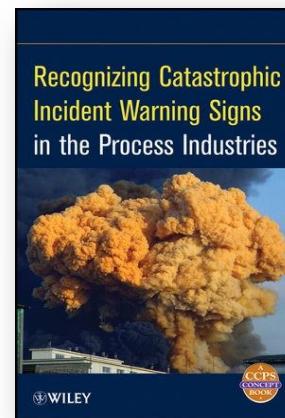
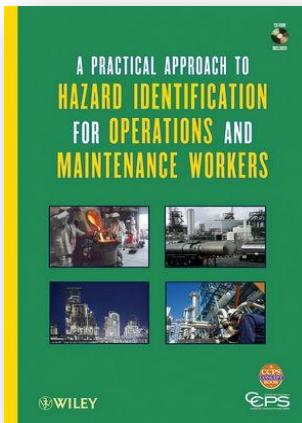
The Beacon is usually available in Afrikaans, Arabic, Chinese, Danish, Dutch, English, French, German, Greek, Gujarati, Hebrew, Hindi, Hungarian, Indonesian, Italian, Japanese, Korean, Malay, Marathi, Norwegian, Persian, Polish, Portuguese, Russian, Spanish, Swedish, Tamil, Thai, Telugu, Turkish, Urdu, and Vietnamese.



- More than a million readers
- 31 languages
- Delivered monthly
- Just celebrated 17th anniversary of publishing
- Used as a safety training tool

CCPS Project Areas

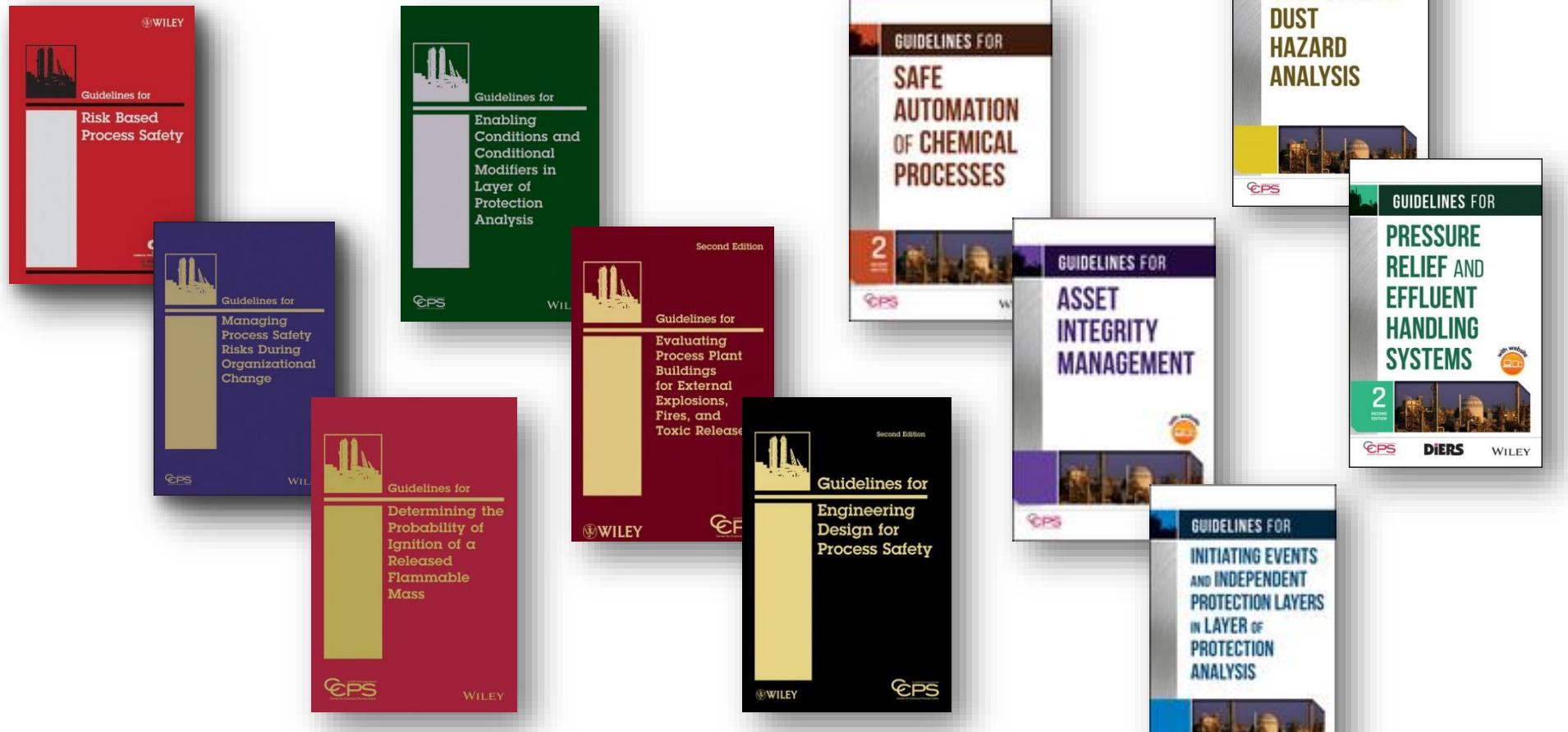
Concept Books: Good introduction to subject, textbook



“The Global Community Committed to Process Safety”

CCPS Project Areas

Guideline Books: In depth guidance



“The Global Community Committed to Process Safety”

Education

- Classroom and eLearning Content
 - LOPA
 - HAZOP Studies and other PHA Techniques for Process Safety and Risk Management
- In Person Training & Continuing Education
 - Risk Based Process Safety
 - Incident Investigation
 - Human Factors for Safety & Improved Performance
- Boot Camps – Taught by 30 Year Veterans
 - Presented at company site, related to company goals and objectives
- Free eLearning Courses for New Member Companies
- Free CCPS course opportunities for newly launched CCPS courses
- Member Discounts on Conference or Education Training

More CCPS Member Benefits...

- Involvement and participation on Technical Projects
- Voting on new projects to enhance process safety initiatives worldwide
- Free postings in the Professional Services Directory (if applicable)

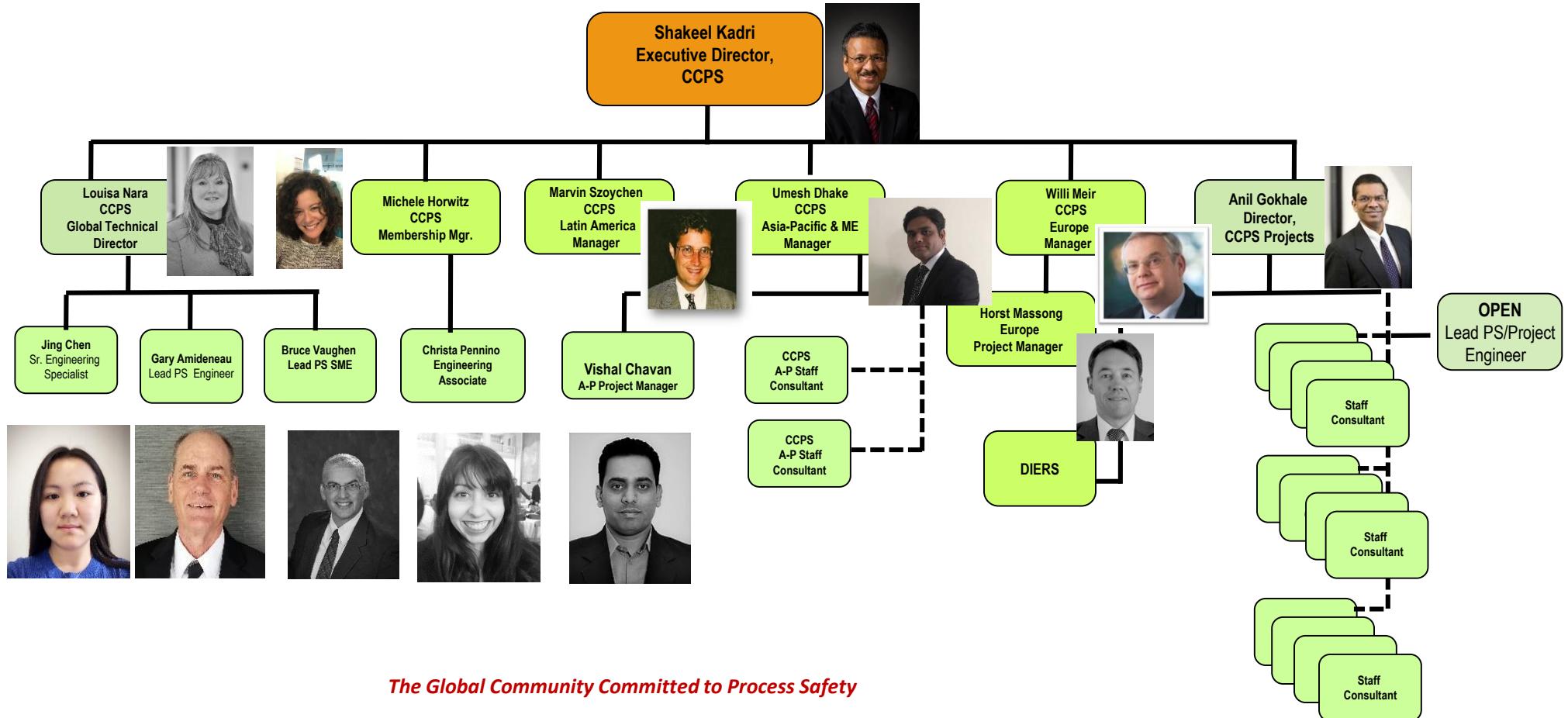
Participation

“The Global Community Committed to Process Safety”

CCPS Holds Meetings to Get Key Stakeholders Inputs and Sharing

- Technical Steering Committee Meetings (5 annually)
 - One in-person meeting following Global Congress on Process Safety
 - 3 via web conference
 - One in-person meeting in the fall, typically in Houston area
- Regional meetings (1-3 annually per region)
- Project committee meetings (as needed)
 - Typical project meets monthly by web conference for 1-3 hours

CCPS Staff



The Global Community Committed to Process Safety

**On Behalf of the
Center for Chemical Process Safety
We Thank You for Your
Time and Attention!**

Questions?