

# 5th Global Congress on Process Safety

<b>MONDAY, APRIL 27</b>			
	<b>Session #16</b> Joint Plenary Session (CCPS/LPS/PPSS)		
8:00 am	Introductions & Welcome, <b>John Murphy</b> and <b>Scott Berger</b>		
8:10 am	Introductory Remarks – <b>Jean-Paul Lacoursiere</b> , LPS Chair – <b>John Champion</b> , PPSS Chair – <b>Eric Freiburger</b> , CCPS Chair		
8:20 am	William H. Doyle LPS Best Paper Award		
8:30 am	Keynote Address: <b>Invited Speaker, Mr. John Bresland</b> , Chairman and CEO, U.S. Chemical Safety & Hazard Investigation Board		
9:20 am	<b>Coffee and Networking Break in Exhibit Hall</b>		
	<b>43rd Annual Loss Prevention Symposium</b>	<b>11th Process Plant Safety Symposium</b>	<b>24th CCPS International Conference</b>
	<b>Session #18: Fire, Explosion and Reactive Chemicals</b> Location: Room 24/25 <b>Session Co-Chairs: Stanley S. Gossel &amp; John A. Noronha</b>	<b>Session #19: Applications of LOPA</b> Location: Room 22/23 <b>Session Co-Chairs: Jack Chosnack &amp; James Gary</b>	<b>Session #20: Auditing Process Safety</b> Location: Ballroom D <b>Session Chair: Christie Arseneau</b>
10:00 am	Approach for the Development of a More Efficient and Safer Process in the Pharmaceutical Industry ( <i>L. R. Saenz</i> )	Key Issues with Implementing LOPA (Layer of Protection Analysis) – Perspective from One of the Originators of LOPA ( <i>Bill Bridges</i> )	Can Auditing Be Improved to Drive PSM Performance Gains? ( <i>James A. Klein</i> )
10:30 am	Predicting Explosibility Properties of Chemicals from Quantitative Structure – Property Relationships ( <i>Patricia Rotureau</i> )	Experience of a Very Large Layer of Protection Analysis with More than 2000 ‘Cause – Consequence Pairs’ Covering a Large Gas Terminal in Europe ( <i>Richard Gowland</i> )	Auditing in Four Levels to Assure Completeness ( <i>Adrian L. Sepeda</i> )
11:00 am	Minimum Ignition Energy of Dust Cloud. The Effect of the Amount of Inert Dust ( <i>Luca Marmo</i> )	Improved Integration of LOPA with Hazop Analyses ( <i>Dick Baum</i> )	Auditing Global Logistics Operations – A Process Safety Focus ( <i>Michael R. Green</i> )
11:45 am	Luncheon With Speaker: <b>Dr. Laura Itle</b> , Officer of Safety ACT Implementation		
	<b>Session #24: Consequence Modeling</b> Location: Room 24/25 <b>Session Co-Chairs: David G. Clark &amp; Brian R. Dunbobbin</b>	<b>Session #25: Safety Culture and Operating Discipline</b> Location: Room 22/23 <b>Session Co-Chairs: James R. Thompson &amp; James A. Klein</b>	<b>Session #23: Implementing PSM Globally</b> Location: Ballroom D <b>Session Chair: Shakeel Kadri</b>
1:30 pm	Development of Algorithms for Predicting Ignition Probabilities and Explosion Frequencies ( <i>Mike Moosemiller</i> )	The Impact of the BP Baker Report ( <i>Stephanie Payne</i> )	Training Tools to Support a Global Process Safety Culture ( <i>Dan Reinke</i> )
2:00 pm	On the Use of Models for Accident Investigations ( <i>Kees van Wingerden</i> )	Identifying “Culture Issues” Using Root Cause Analysis ( <i>Mark Paradies</i> )	Implementing and Sustaining a Global Process Safety Program ( <i>Christie A. Arseneau</i> )
2:30 pm	A Versatile Approach to Explosion Vent Design for Enclosures Handling Flammable Vapors ( <i>David Herrmann</i> )	Implementing a Culture of Safety and Operations Excellence at Newport Chemical Demilitarization Facility (NECDF) ( <i>Tulanda Brown</i> )	Implementing PSM Globally ( <i>David Cummings</i> )
3:00 pm	<b>Coffee and Networking Break in Exhibit Hall</b>		



# 5th Global Congress on Process Safety

## MONDAY, APRIL 27 Continued

	<b>Session #24: Consequence Modeling (Continued)</b> Location: Room 24/25 <b>Session Co-Chairs: David G. Clark &amp; Brian R. Dunbobbin</b>	<b>Session #25: Safety Culture and Operating Discipline (Continued)</b> Location: Room 22/23 <b>Session Co-Chairs: James R. Thompson &amp; James A. Klein</b>	<b>Session #41: Tools to ID Hazards</b> Location: Ballroom D <b>Session Chair: Robert F. Wasileski</b>
<b>3:30 pm</b>	Consequence Modeling Lack of Accuracy and its Effects on Quantitative Risk Analysis Results ( <i>Mohammed J. Ayyoubi</i> )	From Training to Human Reliability: Lessons Learned During the Implementation of a Human Reliability Function in the Pharmaceutical Industry ( <i>Ginette Collazo-Ramos</i> )	Accident Investigation Using Process Control Event Diagrams ( <i>D. R. Morrison</i> )
<b>4:00 pm</b>	Advanced CFD Modeling on VCE and Vapor Dispersion ( <i>Anna Qiao</i> )	Improving Operating Discipline Through the Successful Implementation of a Behavior-Based Safety Program ( <i>B. Vaughn</i> )	The Retro-Synthesis of Risk Assessment Tools for Hazard Evaluation and Screening Analysis ( <i>Fred Henselwood</i> )
<b>4:30 pm</b>	LNG Modeling for Facility Siting ( <i>David Moore</i> )	Safety Culture Implementation Programs in a Developing Country ( <i>Robin Pittado</i> )	A Practical Approach to Hazard Identification for Operations and Maintenance Workers ( <i>Christy Franklyn</i> )

## TUESDAY, APRIL 28

	<b>43rd Annual Loss Prevention Symposium</b>	<b>11th Process Plant Safety Symposium</b>	<b>24th CCPS International Conference</b>
	<b>Session #46: Hazard Evaluation and LOPA</b> Location: Room 24/25 <b>Session Co-Chairs: Robert W. Johnson &amp; Mike Moosemiller</b>	<b>Session #47: Mechanical Integrity — State of the Art</b> Location: Room 22/23 <b>Session Co-Chairs: Steven D. Emerson &amp; James Willis</b>	<b>Session #49: PSM Metrics and Culture</b> Location: Ballroom D <b>Session Chair: John Wincek</b>
<b>8:00 am</b>	Oversights and Omissions in Process Hazard Analyses: Lessons Learned from CSB Investigations ( <i>Mark Kaszniak</i> )	New Statistical Insights into Reasons for Initial Failures in Pressure Relief Valves ( <i>Julia Bukowski</i> )	Cheddar or Swiss? How Strong are Your Barriers? ( <i>Michael P. Broadribb</i> )
<b>8:30 am</b>	Optimizing Qualitative Hazard Evaluation ( <i>William (Bill) Bridges</i> )	Validation of Spring Operated Pressure Relief Valve Time-to-Failure and the Importance of Statistically Supported Maintenance Intervals ( <i>Robert E. Gross and Stephen P. Harris</i> )	Implementation of Process Safety Management Into Diverse Corporate Cultures ( <i>C. A. Soczek</i> )
<b>9:00 am</b>	LOPA as Practiced at Pfizer's Global Manufacturing API Facility in Kalamazoo, MI ( <i>G.E. Evenson</i> )	Lessons Learned from Corrosion Under Insulation ( <i>Tim Overton</i> )	Process Safety Leadership – A Systematic Approach ( <i>C. D. Shelton</i> )
<b>9:30 am</b>	<b>Coffee and Networking Break in Exhibit Hall</b>		

(Tuesday, April 28 continued on next page)



**TUESDAY, APRIL 28 Continued**

	<b>Session #46: Hazard Evaluation and LOPA (Continued)</b> Location: Room 24/25 <b>Session Co-Chairs: Robert W. Johnson &amp; Mike Moosemiller</b>	<b>Session #47: Mechanical Integrity — State of the Art (Continued)</b> Location: Room 22/23 <b>Session Co-Chairs: Steven D. Emerson &amp; James Willis</b>	<b>Session #49: PSM Metrics and Culture (Continued)</b> Location: Ballroom D <b>Session Chair: John Wincek</b>
10:15 am	The Buncefield (U.K.) Fire and Explosion: Improving Layer of Protection Analysis Practise to Determine the Required Degree of Protection to Meet Regulator Requirements ( <i>Richard Gowland</i> )	Implementing Mechanical Integrity at Solutia ( <i>F. Russ Davis</i> )	Safety Culture: From Black Art to Real Improvements ( <i>Cinzia De Santis</i> )
10:45 am	The New Approach of Risk Analysis in France for Seveso Establishments: Strengths and Weaknesses ( <i>Jerome Taveau</i> )	Adoption of Mechanical Integrity Principles at Air Liquide Large Industries US ( <i>Danny Ledbetter</i> )	OECD Guidance on Safety Performance Indicators ( <i>Kim Jennings and Fran Schulberg</i> )
11:15 am	Hazard Evaluations and Layer of Protection Analysis: Independent Protection Layers, A New CCPS Guideline Book ( <i>John Murphy</i> )	Implementing Risk-Based Inspection on a Global Scale ( <i>Andrew Morey</i> )	CCPS Process Safety Metrics Status Report ( <i>Dorothy Kellog</i> )
12:00 NOON	<b>Networking Luncheon</b>		
	<b>Session #62: Food and Consumer Products Process Hazards</b> Location: Room 24/25 <b>Session Co-Chairs: John E. Going &amp; Nir Keren</b>	<b>Session #63: Process Safety – From the Top Down to Bottom Up</b> Location: Room 22/23 <b>Session Co-Chairs: Philip M. Myers &amp; Donald Abrahamson</b>	<b>Session #61: Transportation Risk</b> Location: Ballroom D <b>Session Chair: Cheryl Grounds</b>
1:30 pm	Preventing Combustible Dust Explosions in the Food and Consumer Products Industries ( <i>John Bresland</i> )	The Process Safety Guerilla: Giving Your Company a Future, Even if it Doesn't Want One ( <i>Scott Berger</i> )	Guidelines for Chemical Transportation, Safety, Security and Risk Management ( <i>Brad Fuller</i> )
2:00 pm	From the Top Down – Hazard Identification and Risk Evaluation in Food Processing – Toxic Releases, Dust Explosions and Flammable Excursions ( <i>Catherine Kollhoff</i> )	Using Playbooks – A Unique Strategy in Technical Oversight of Highly Hazardous Operations ( <i>James Gary</i> )	A Model to Evaluate Pipeline Failure Frequencies based on Design and Operating Conditions ( <i>Vania De Stefani</i> )
2:30 pm	Nothing to Sneeze at – Combustible Dust Hazard Process Safety ( <i>Guy R. Colonna</i> )	An Impetus for Management Involvement in Process Safety ( <i>Jack Chosnek</i> )	Analysis of the Explosion Linked to the Formation of an Explosive Atmosphere In a Shop Carrying Fuel Products ( <i>Sébastien Evanno</i> )
3:00 pm	<b>Coffee and Networking Break in Exhibit Hall</b>		
	<b>Session #62: Food and Consumer Products Process Hazards (Continued)</b> Location: Room 24/25 <b>Session Co-Chairs: John E. Going &amp; Nir Keren</b>	<b>Session #63: Process Safety – From the Top Down to Bottom Up (Continued)</b> Location: Room 22/23 <b>Session Co-Chairs: Philip M. Myers &amp; Donald Abrahamson</b>	<b>Session #77: Fires, Explosions, and Quantitative Analysis</b> Location: Ballroom D <b>Session Chair: Jatin Shah</b>
3:30 pm	Promoting the Safe Use of Ammonia for Industrial Refrigeration ( <i>Bruce Badger</i> )	What Does Management Need to Know To Lead Process Safety Improvement? ( <i>Mark Paradies</i> )	Protection of Permanent Buildings at an Existing Upstream Oil and Gas Facility ( <i>Mark Aspengren</i> )
4:00 pm	Process Hazards in the Distilled Spirits Industry, Birkmire ( <i>John C. Birkmire</i> )	Process Safety – Perspectives from the Top ( <i>Tom Archibald</i> )	Basic Tools for a QRA of an Oilfield Cold Vent ( <i>Pablo Zunana</i> )
4:30 pm	Replacement of HCFC-22 Refrigerants with Ammonia: a Challenge for Hockey Arenas in Quebec ( <i>Jean Paul Lacoursiere</i> )		Blast Response of Soft-Skinned Shelters and Occupant Vulnerability ( <i>D.R. Whitehouse</i> )



# 5th Global Congress on Process Safety

<b>WEDNESDAY, APRIL 29</b>			
	<b>43rd Annual Loss Prevention Symposium</b>	<b>11th Process Plant Safety Symposium</b>	<b>24th CCPS International Conference</b>
	<b>Session #82: Audits, Inspection and Regulation</b> Location: Room 24/25 <b>Session Co-Chairs: Lisa Long &amp; Frank H. Gurry</b>	<b>Session #83: Applications of Risk Analysis Techniques</b> Location: Room 22/23 <b>Session Co-Chairs: Alvin Waller &amp; Douglas J. Ferguson</b>	<b>Session #79: Managing Organizational Change</b> Location: Ballroom D <b>Session Chair: Donald J. Conolley</b>
<b>8:00 am</b>	Auditing Your Process Safety Culture <i>(David M. Heller)</i>	Procter & Gamble Global Risk Ranking <i>(Frank H. Gurry)</i>	Identifying Key Safety Roles during Organizational Change <i>(P.A. Davidson)</i>
<b>8:30 am</b>	Preliminary Findings from OSHA's Refinery National Emphasis Program <i>(Lisa Long)</i>	Overfill Protection Systems – Complex Analysis, Simple Solution <i>(Angela Summers)</i>	Risk Assessment Process for Organizational Changes <i>(John C. Wincek)</i>
<b>9:00 am</b>	Overview of the Chemical Facility Anti-Terrorism Standards <i>(D. R. Deziel)</i>	Pressurization of Fixed Roof Storage Tanks Due to External Fire <i>(Fabien Fouillen)</i>	An Overview of the CCPS Guideline on Process Safety Consideration During the Merger and Acquisition Process <i>(G. Melham)</i>
<b>9:30 pm</b>	<b>Coffee and Networking Break in Exhibit Hall</b>		
	<b>Session #82: Audits, Inspection and Regulation (Continued)</b> Location: Room 24/25 <b>Session Co-Chairs: Lisa Long &amp; Frank H. Gurry</b>	<b>Session #83: Applications of Risk Analysis Techniques (Continued)</b> Location: Room 22/23 <b>Session Co-Chairs: Alvin Waller &amp; Douglas J. Ferguson</b>	<b>Session #94: Risk Criteria</b> Location: Ballroom D <b>Session Chair: Karen Tancredi</b>
<b>10:15 am</b>	Dust Explosion Prevention: Regulations, Standards, and Mitigation Techniques <i>(Timothy J. Myers)</i>	Quantifying the Effectiveness of Explosion Protection Measures <i>(Peter Moore)</i>	Single Scenario Risk Criteria: Why Would I Want Them and How do I get Them? <i>(J. Wayne Chastain)</i>
<b>10:45 am</b>	Lessons Learned in Auditing Automated Systems for PSM Compliance <i>(Angela E. Summers)</i>	The Failure to Communicate: Risk Assessment Challenges Outside the Chemical Process Industries <i>(Catherine Kollhoff)</i>	The Application of Peak Risk Concepts within a Corporate Risk Program <i>(Fred Henselwood)</i>
<b>11:15 am</b>	A Practical Approach to Implementing a Process Safety Management System Upgrade in Response to an OSHA Refinery PSM NEP Audit <i>(Robert Walter)</i>	Are Our Facilities Safe?... And Now?... And Now? <i>(Melina Alpert)</i>	Choosing Appropriate Quantitative Safety Risk Criteria: Applications from the New CCPS Guidelines <i>(Dave Jones)</i>
<b>12:00 Noon</b>	Luncheon With Speaker: <b>Lisa Morrison</b> , BP International		

*(Wednesday, April 29 continued on next page)*



**WEDNESDAY, APRIL 29 Continued**

	<b>Session #96: Case Histories — Joint (CCPS/LPS/PPSS) Session</b> Location: Ballroom D <b>Session Chairs: Henry L. Febo, Cheryl Grounds, William Bridges, &amp; Kathy Pearson</b>
<b>1:30 pm</b>	Lessons Learned from the 2006 Facility Explosion in Danvers, MA ( <i>Scott Davis</i> )
<b>2:00 pm</b>	Root Cause Analysis of a Cryogenic Refrigeration System Explosion ( <i>Delmar Morrison</i> )
<b>2:30 pm</b>	Valero – McKee Refinery Propane Release and Fire ( <i>Jim Lay</i> )
<b>3:00 pm</b>	<b>Coffee and Networking Break in Exhibit Hall</b>
<b>3:15 pm</b>	An Oven Explosion Incident – Lessons Learned on PSI, SIS and MOC ( <i>Michael D. Cazabon</i> )
<b>3:45 pm</b>	Polymerization Reactor Explosion at the XYZ Chemical Company ( <i>Peter Howell</i> )
<b>4:15 pm</b>	Tank 15 – The Perfect Storm ( <i>Jeffrey Oland</i> )
<b>4:45 pm</b>	Global Congress Closing Remarks

**THURSDAY, APRIL 30**

	<b>All papers presented Thursday belong to the 43rd Annual Loss Prevention Symposium (LPS) — Session #111</b>
	<b>43rd Annual Loss Prevention Symposium</b>
	<b>Session #111: Explosion Prevention and Mitigation — LPS Session</b> Location: Room 24/25 <b>Session Chairs: Dr. Erdem A. Ural &amp; Brian Kelly</b>
<b>8:00 am</b>	The Dynamics of Vented Gas Explosions ( <i>C. Proust</i> )
<b>8:30 am</b>	Safe Thickness for Combustible Dust Layers ( <i>Erdem Ural</i> )
<b>9:00 am</b>	Explosion Characteristics of Hydrogen-Air Mixtures in a Confined Space ( <i>Dan Crowl</i> )
<b>9:30 am</b>	<b>Coffee and Networking Break in Exhibit Hall</b>
<b>10:15 am</b>	Prevention and Mitigation of Polyethylene and Hydrocarbon/Polyethylene Explosions ( <i>P.R. Amyotte</i> )
<b>10:45 am</b>	Flammable Gas Venting/Treatment Lessons Learned and Best Practices ( <i>James VanOmmeren</i> )
<b>11:15 am</b>	Process Management Lessons Learned from a Petroleum Refinery Spent Caustic Explosion ( <i>K.P. Bloch</i> )
<b>11:45 am</b>	Flammability Characteristics of Low GWP Refrigerant HFO-1234yf ( <i>Barbara Minor</i> )
<b>12:15 pm</b>	<b>Session Closing Remarks</b>