

TUESDAY, OCTOBER 24 • 7:30AM- 8:00AM – Registration & Continental Breakfast

Oakwood	The Frank P. Lees Memorial Lecture: Lynne M. Lachenmyer, ExxonMobil			
8:00AM				
8:45AM	Twenty Year Retrospective - T. Michael O'Connor			
9:30AM	Break and Exhibit Hall - Ballroom			
	Track I	Track II	Track III	Track IV
Rooms	Oakwood	North/South 40	Brazos	Mockingbird
	Chairs: Kathy Shell, Scott Ostrowski, Stewart Behie	Chairs: Michela Gentile, Kiran Krishna, Mike Marshall	Chairs: Sara Saxena, Ramasamy Ravi, Jeff Thomas	Chairs: Marc Levin, Victor Carreto Vazquez
	Case Study/Lessons Learned I	Hazard Assessment I	Risk Assessment/LOPA I	Pipelines
10:15AM	Journeys of PSM Implementation at Taiwan FPG - William Liao , Formosa Plastics Group	Tsunami as a credible hazard – A case for safety - Mahesh Murthy	Re-Energizing Industry Risk Management and Coordination and Communication - Steve Arendt , ABS Group	Analysis of Leak and Explosion from an Underground Pipeline in Kaohsiung, Taiwan - Jenq-Renn Chen , National Kaohsiung First University of Science & Technology
10:45AM	An Efficient and Effective Approach for Performing Cost Benefit Analysis, with Two Case Studies - Henrique Paula , ABS Group	Optimizing Fire & Gas Detection Coverage and Layout using 3D mapping tools - Akshat Khirwal , IRESC	Institute of Makers of Explosives Safety Analysis for Risk (IMESAFR): A Tolerable Risk Criteria – What Is Safe Enough? - Ronald Thomas , Institute of Makers of Explosives	Establishing a Safety Performance System for Pipeline Integrity - Sonny Sachdeva , PSRG
11:15AM	Central Valley Winery Incident - Mike Doering	Numerical study on energy transmission and absorption effect of liquids in steel cylindrical tanks under blast wave - Hu Kun , South China University of Technology	Buckets to disaster - Guidance to improve the outcome of critical technical decisions - Stewart Behie , Occidental Oil and Gas	Oil Transportation in Pipelines with the Existence of Ice - Hongfei Xu , University of Tulsa
11:45AM	Lunch and Exhibit Hall - Ballroom			
	Explosion Hazards	Safety Culture	Case Study/Lessons Learned II	Process Mgmt for Safety II
1:15PM	The physical phenomena that occur and their consideration in evaluating pressure inside a vessel and its failure when exposed to an external engulfing fire - Phani Raj , US DOT	Identifying Safety Culture Deficiencies in Facilities with the Potential for High Consequence/Low Probability Events - Alek Hamparian , Kazarians & Associates	Torrance Investigation Report - Mark Wingard , Chemical Safety Board	Prediction of Emergency Evacuation Orders in chemical accidents Using Naïve Bayes Classification and Deep Learning - Seungho Jung , Ajou University
1:45PM	Containing Hydrogen Deflagrations Mike Schmidt , Bluefield Process Safety	TBD Case Study - Manny Ehrlich , Chemical Safety Board	A Case Study: Autocatalytic Behavior and its Consideration for a Chemical Process with General Application to Handling, Shipping, and Reactive Relief Design - Drake Brenton , Dow Chemical Company	Addressing the Challenges of Implementing Safety Instrumented Systems in Multi-Product Batch Processes - Eric Steinhauser , Albemarle
2:15PM	Storage Tank Overfill Vapor Cloud Explosions – Science, Causes, and Prevention - Philip Myers , PEMY Consulting	A decade of research collaboration on safety climate at Texas A&M University - Mindy Bergman , Texas A&M University	Techniques for Improving Operator Response to Abnormal Operations - Eloise Roche , SIS-TECH Solutions	The Future of Process Safety - Trish Kerin , IChemE Safety Centre
2:45PM	Break and Exhibit Hall (*Door Prizes at 3:00PM) - Ballroom			
	Safety Culture II	Risk Assessment/LOPA II	Consequence Analysis I	Human Factors
3:15PM	Employee Participation in Preventing Catastrophic Chemical Hazard - Rick Engler , Chemical Safety Board	Risk assessment of Ammonia storage using Two Dimensional Fuzzy Fault Tree Analysis - G. Madhu , CUSAT	Verification and validation of consequence models for accidental releases of toxic or flammable chemicals to the atmosphere - Henk Witlox , DNV GL	Operator Training Effectiveness with Simulation Based Learning - Brent Kedzierski , Shell
3:45PM	Accident Prevents Accidents - Pramod Pushkaran , Government of Kerala, India	Cost-Based Analysis for Risk Reduction - Donald DuPont , Jacobs Engineering	Jet Fire Consequence Analysis - Francesco Colella , Exponent	State of Procedures in High Risk, Highly Regulated Processing Industries - Elliott Lander , ATR
4:15PM	Does your Asset Integrity program ignore your most important Asset? - Greg Kiihne , BASF Corporation	Can we verify and validate a QRA? What progress is being made to increase the trustworthiness of a QRA? - Hans Pasman , MKOPSC	Establishing Safety System Requirements for Onshore Facilities - Tom Bischoff , Anadarko	Qualitative and Quantitative Analysis of Human Factors under Emergency State - Yi Liu , China University of Petroleum
4:45PM	Benchmarking Safety Culture Survey Practices in the Chemical Process Industry - Stephanie Payne , Texas A&M University	Dynamic Risk Prediction Model for corrosion leakage accidents of Chloride Process Based on Experiment data of Steel Corrosion - Jing-Hong Wang , Nanjing Tech University	Signal Words and Symbol Designs: Does Consumer Products Research Inform the Design of These for Procedures? - Sarah Thomas , TAMU School of Public Health	Improving Barrier Effectiveness using Human Factors Methods - Dave Grattan , aeSolutions
5:15-7:00PM	Cocktail Reception (*Door Prizes at 6:00PM) - Ballroom			
5:30-7:30PM	Poster Session - Inside Ballroom			

WEDNESDAY, OCTOBER 25 • 7:30AM-8:00AM – Continental Breakfast

Oakwood 8:00AM	Keynote Lecture: Hector L. Rivero, Texas Chemical Council			
8:45AM	Presentation of Trevor Kletz Merit Award, Harry West Service Award, & Lamiya Zahin Memorial Safety Scholarship – Dr. Sam Mannan, MKOPSC			
9:15AM	Break and Exhibit Hall - Ballroom			
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	Facility Siting	PSM	Hazard Assessment	LNG
9:45AM	"Facility Level" Hazard Analysis Program within Management of Change - Ryan Morton , Anadarko	Functional Safety Management Planning - Denise Chastain-Knight , exida	Demonstrating the effectiveness of non-metallic riser flange covers for diverting leaks and jet fires using computational fluid dynamics - Matt Straw , Norton Straw Consultants	Integrating Fire and Explosion Risk Analysis, Fire zones, Fire and Gas Detection, Emergency Shutdown and Blow-down, and Firefighting capabilities in Natural Gas Liquid (NGL) Plant - Mukundray Dave , Bechtel
10:15AM	Commonly Encountered Problems in the Safety-Focused Design of Capital Projects - Phillip Hodge , Baker Risk	Plan to Fail - Amit Aglave , Fluor	Transient Large-Scale Chlorine Releases in the Jack Rabbit II Field Tests: Rainout Source Data Analysis from Video Records - Tom Spicer , University of Arkansas	A Qualitative Risk Assessment on Base-load and Midsized LNG Production Facilities - Sattar Sobhani , Chiyoda International Corporation
10:45AM	Is my facility at risk: Understanding the risks associated with low burning velocity compounds - Scott Davis , Gexcon US	Instrumentation Adequacy Check for the Debottlenecking Projects and the Impact on Process Safety - Yaser Al-Hawi , SABIC	Cyber threats in the Chemical and Process Industry - Valerio Cozzani , University of Bologna	Forthcoming Changes in the CSA Z276 LNG Standard - Jeff Marx , Quest Consultants
11:15AM	Improving Leak Detection in Deepwater Multiphase Systems - Graham McVinnie , Shell	How and When do I Validate, Proof Test and Re-Validate my SIS Logic Solver ? - Prasad Goteti , Honeywell	A Method to Identify the Hazards of Tasks Derived from Abnormal Conditions of Processes - Hornng-Jang Liaw , National Kaohsiung First University of Science and Technology	Risk Assessment of LNG Regasification Terminal Using Cascaded Fuzzy-LOPA - Samuel George , CUSAT
11:45AM	Lunch and Exhibit Hall - Ballroom			
	Human Factors	Relief Systems	Instruments/Controls	Reactive Chemicals
12:45PM	Process Safety Competence Assurance - Ewan Ross , Kestrel Management	Lowering Capital Costs when Evaluating Relief Systems - A Collaborative Approach - Aniket Patankar , Lloyd's Register	Impact of the 70% Rule on Interlock Design - Raymond Freeman , S&PP Consulting	Experimental research on decontamination effect of aqueous solutions containing compound inorganic salts on the release of ammonia within the confined space - Min Hua , Nanjing Tech University
1:15PM	New Paradigms in Mitigating Unplanned Events Caused by Human Error - Chris Kourliouros , NovaTech	Changes to industry guidance for relief and blowdown system design and the impact on existing infrastructure - Paul Frey , PSE Limited	SIL analysis for manufacturers of SIF components - Sonam Kala , Lloyd's Register	The Effect of Different Fire Start Times on Chemical Reactive Hazards - Zubin Kumana , Smith & Burgess
1:45PM	Adapting cause and effects methodology to your Safety instrumented system (SIS) to reduce human errors from engineering, operations and beyond - Luis Garcia , Siemens	Statistical analysis of site-wide relief systems study and the deficiencies that were identified - Neil Prophet , ioMosaic	Resilience and risk analysis of fault tolerant control design in continuous pharmaceutical manufacturing - Zoltan Nagy , Purdue University	Prediction of NH4NO3 thermal decomposition parameters in the presence of two additives using the single additive experimental values - Maria Papadaki , University of Patras
2:15PM	Break and Exhibit Hall (*Door Prizes at 2:30PM) - Ballroom			
	PSM	Facility Siting	OESI	LNG
3:00PM	Implementing a Global Incident Management System - Justin Trice , INEOS Styrolution	Technical Analysis of Tents Sited in Accordance with API-RP 756 - Barry Bingham , Baker Risk	Quantifying sleep and cognitive fatigue-related variability in operator performance during offshore drilling - Ranjana Mehta , Texas A&M University	Modelling large LNG pool fires on water - Steven Betteridge , Shell Global Solutions
3:30PM	OSHA PSM: Engineering controls for the process or near the process? - Delmar Morrison , Exponent	Benefits of a Baseline Hazardous Area Classification Assessment for a Facility with Limited Personnel Resources - Jim Johnston , Bath Process Safety Management	Comparison between Kick Occurrences in the Gulf of Mexico and Offshore Norway - Elaine Kleiner , BSEE	CFD Modeling of LNG Flammable Vapor Cloud Dispersion - Alex Graham , Siemens
4:00PM	Do we really know how to manage risk? - Simon Jones , Petrotechnics	Shockwave Arrested - Harold Warner , Dynamic Air Shelters	Erosive Life Calculator for Production Choke Valves on Offshore Platforms to Prevent Catastrophic Failure - Shishir Gaikawari , IMI CCI	How Risk Complicates the Classic Infrastructure Problem - Lindsay Deal , DNV GL
4:30PM	Engineering Ethics Session (1 hr) – Brazos Room			
6:30PM	Symposium Banquet at Traditions Club – (Ticketed Event) Buses arrive at 6:00 at the Fountain Entrance			

THURSDAY, OCTOBER 26 • 7:30AM-8:00AM – Continental Breakfast

8:00AM	Keynote Lecture: Jim Blackburn, Blackburn & Associates			
Oakwood				
9:00AM	Break and Exhibit Hall - Ballroom			
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	Process Safety Management	PSM	Case Study/Lessons Learned	Facility Siting
10:00AM	Application of functional safety to electrical power equipment and systems in process industries - Kallambettu Janardhanan , Bechtel	Improving Safety Lifecycle Data Flow Reduces Project Cost - Kate Hildenbrand , exida	Use of Combustible Gas Detectors in Safety Instrumented Systems – A Practical Application Case Study - Seyi Famuyiro , BASF Corporation	What API RP 752 Does Not Tell You – But People Will Ask - John Cornwell , Quest Consultants
10:30AM	Performance-based Gas Detector Layout for Small-Scale LNG Facilities - Filippo Gavelli, Gexcon	Data Driven Risk Based Process Safety – why care, how to get it and how to keep it - Keith Lapeyrouse , Process Reliability Solutions	A Review of the 2012 Reynosa Gas Plant Explosion - Neil Prophet , ioMosaic	Dynamic Response of Vertical Tank Caused by Fragment Using Numerical Simulation and Ballistic Experiments - Chen Guo-Hua , South China University of Technology
11:00AM	Best Practices for Management of Change (MOC) and Pre Start-Up Safety Reviews (PSSR) - Walter Kessler , Dekra Insight/Chilworth Technology	PSM Lite? What process safety management programs are needed at non-PSM sites? - Michael Washington , BASF	Should “All” small incidents be investigated? - Mike Munsil , PSRG	Improved Blast Capacity of Pre-engineered Metal Buildings using Coupled CFD and FEA Modeling - James Wesevich , Thornton Thomasetti
11:30AM	Identification and local impact analysis of projectile hazard in the LNG industry - Wimberly Dick , Federal Energy Regulatory Commission	I thought I had the right roadmap for implementing a safety system; help! - Simon Lucchini , Fluor Canada	Case study for Validation of Emergency ventilation Safe guards for Gas release in buildings - John Selby , Suncor Energy	Bacterial Foraging Optimization for non-hazardous plant layouts - Diego Sierra Arcila , Universidad de los Andes
12:00PM	– Close (Box lunches available)			