Tuesday 16 November 2021

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Hazards31

09:30–09:45	Welcome from the conference ch	air				
09:45–10:40	Plenary speaker	speakerA Reflection of How the Downstream Oil Sector Responded to the Outbreak of COVID-19 and How that Response Mapped to Process Safety Management During the Ensuing Pandemic Simon Wood, UK Petroleum Industries Association (UKPIA)				
	Lessons Learned from the COVID-19 Response I	Assurance	Safety Culture I	Modelling I		
	Presentation summaries >>	Presentation summaries \gg	Presentation summaries >>	Presentation summaries \gg		
10:45–11:10	<i>Lessons Learned from the COVID-19 Pandemic</i> Keith Plumb, Integral Pharma Services, UK	Process Safety Key Performance Indicators (API- 754 Guidelines) Ameer Hamza & Syed Salwat Hosain Rizvi, Engro Polymer & Chemicals, Pakistan	Process Safety Site Visit to Improve PSM Culture Ipek Isteben & Seçkin Gökçe, Tupras, Turkey	A Case Study for Natural Gas Explosion in a Confined Space Md Easir Arafat Khan, Easir A Khan, Iftekhar Hassan & Sayedil Morsalin, Bangladesh University of Engineering and Technology, Bangladesh		
11:15–11:40	Case Study – Design and Build of New Plant for Production of a Key Ingredient for a COVID-19 Vaccine Carolyn Nicholls, RAS, UK & Robert Hanson, Croda Europe, UK	Analysis of Quantitative Risk Assessment Methodology and Worldwide Comparison on Risk Acceptability Criteria Ravi Kumar Sharma, Indian Institute of Technology, India	Influencing Improvements in Safety Culture Using Qualitative Research Methods: a Regulatory Perspective Nick Shaw, Office for Nuclear Regulation, UK	Applying Standards and Transient Simulations to Find Root Cause of Fire Incident Mira Ezora Zainal Abidin, Siti Fauzuna Othman & Zalina Harun, Petronas, Malaysia		
11:45–12:10	<i>Title to be confirmed</i> Ellen Rivers, British Compressed Gases Association (BCGA), UK	Learning from Major Incidents Related to Process Safety Audits Zsuzsanna Gyenes, IChemE Safety Centre, UK	<i>Process Safety Cards "A Good Deal Safer"</i> David Hatch, PS Integrity, UK	Advanced Methodology of Structural Redundancy Analysis for Optimising Passive Fire/Cryogenic Spill Protection Hiroki Takahashi & Yoshinori Hiroya, JGC Corporation, Japan		
12:15–12:40	LOPA Versus Covid – Return to Sustainable Living Pablo Garcia-Trinanes & Ali Mokhber, University of Greenwich, UK; Christopher Ross, UK	Recommendations and the Broken KPI – Optimising PHA Recommendation Implementation Ronjit Mukherjee, RiskAlive Analytics, Canada	Facilitated discussion	Comparisons of the Predictions of the Dispersion Model DRIFT Against Data for Hydrogen, Ammonia and Carbon Dioxide Graham Tickle, ESR Technology, UK		
12:40-13:15	Facilitated discussion	Facilitated discussion		Facilitated discussion		
13:15-14:15	Break				- 	
14:15–15:10	Cross Sector Learning – What the Chemical and Process Industries Can Learn from the Building Sector					
	Cross-sector Learning	Analysis of Losses	Risk Assessment	Modelling II	Process Safety Competencies	
	Presentation summaries >>	Presentation summaries \gg	Presentation summaries >>	Presentation summaries \gg	Presentation summaries >	
15:15–15:40	What the Processing Industry Must Learn from the Boeing 737 MAX Crashes Richard Carter, ACM Facility Safety, Canada	Trends in Offshore Process Equipment Leak Frequencies Brian Bain, DNV, UK	<i>Cumulative Risk Model of</i> <i>Safety Barriers – Case Study</i> Yasser Fathy, Rashid Petroleum, Egypt	<i>Is Your Tank Inert? A Study</i> <i>into the Challenges of Ensuring</i> <i>Inert Atmospheres</i> Alan Collier & Stephen Puttick, Syngenta, UK	Strengthening Regulators' Competence in Learning from Operational Safety Performance Fidel Ilizastigui, Todus Advisors Cuba	
15:45–16:10	Thinking Outside the Box: Lessons and Experience that the Major Hazard and Nuclear Sectors Can Learn from Each Other Ian Phillips, Office for Nuclear Regulation (ONR), UK	Analysis of Accidents and Good Inspection Practices for the Management of Ageing of Industrial Plants Romualdo Marrazzo & Fabrizio Vazzana, Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Italy	<i>Use of Live Barrier Models to Manage Risk</i> Rae Ann Joseph, Atlantic LNG, Trindad & Tobago	Monte Carlo CFD Simulations for Quantifying Uncertainty Associated with Vapour Cloud Explosions Christopher Stirling, Viper Blast, UK & Jordi Dunjó, Bright Calcs LLC, USA	Practical Experience of Rolling out Process Safety Competency Assessments Across a Large Multinational Company Graeme Ellis, Matthey, UK	

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16:15-1	6:40 A Case Study of The Halo and Safety Culture in Motorsport Andrew Laird & Dr Esther Ventura-Medina, University of Strathclyde, UK	Facilitated discussion	Evaluation, Visualisation and Monitoring of Cumulative Risk Exposure Resulting from Safety Critical Hardware and Human Barriers Deviation Tayo Olunsanya, Olu Adeyemi & Seyi Olusanya, Melios Ltd, UK	Addressing the Unique Challenges of Hydrogen Gas Detection in 3D Fire and Gas Mapping Khama Maiti, Chris Dysart, Alex Lebas, Lloyd Samaniego, Hasanah Shamsuri, Ahmad Muzammil & Filippo Derosa, Monaco Engineering Solutions, UK	Linking Critical Competencies with Major Accident Hazards Chris Proud, Andrew Lawson & Luke Butcher, ESR Technology, UK; Andy Brazier, AB Risk, UK
16:40-1	7:15 Facilitated discussion		Facilitated discussion	Facilitated discussion	Facilitated discussion

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Keeping Risk in Perspective: Learning to Manage Black Swan Risks **Plenary speaker** 09:30-10:25 Professor Atula Abeysekera, Imperial College London Lessons Learned **Process Safety** from the COVID-19 **Environment** Human Factors **Pressure Relief** Management **Response II** Presentation summaries >>Presentation summaries >>> Presentation summaries >> Presentation summaries >>> Presentation summaries >>> The Impact of Cognitive Bias in Effective Field Engagement Assessment of Operators' Managing Process Safety Flood Risk Management – Are 10:30-10:55 by Digitalisation During the You Prepared? and Management of Higher Response Time on Safe Safety **Consequence Scenarios Operation of Distillation** Pandemic Brad Eccles & Steve Fitzgibbon, Trish Kerin, IChemE Safety Columns: a Process Dynamic Ahmet Kemal Ozoral, Seckin Martin R Ovenden, ExxonMobil, ABS Consulting, UK Centre, Australia Analysis Gokce & Eda Akkus, Tupras, UK Zalina Harun & Zulfan Adi Putra, Turkey Petronas, Malaysia ; Nik Abdul Hadi Md Nordin, Universiti Teknologi PETRONAS, Malaysia; Darmawan Ahmad Mukharror, PT Keselamatan Proses, Indonesia **Risk Based Prioritisation of** Guidance to Provide an Human Factors Issues in Hazard Management in Mechanical Response of Shells 11:00-11:25 NOVA Sclairtech Technology Maintenance Backlog Items Economic Value (or Series Turnarounds (TARs) to Tube Rupture in Shell-andof Values) Which Can Be **Polyethylene Plant** Tube Heat Exchangers Chetan Birajdar, Ricardo Jamie Henderson & Richard Applied When Undertaking Colin Deddis, Greymore Bandini & Khama Matiti, MES Marshall, Human Reliability, UK Amit Kanchan, Nova Chemicals, a CBA Under Major International, UK Engineering Services, UK; Mark India Hazard Establishments for Scanlon, Energy Institute, UK; Environmental Purposes Alan Clayton, Consultant, UK: Rocio Salado, RPA Ltd, UK Rob Kulka, TWI, UK Managing Operator Fatigue Lessons Learned and the Pros & The Application of Satellite Applying Process Safety Detailed Analysis of 11:30-11:55 – It's About More Than Just Temperature and Pressure Cons of Virtual HAZOP Data for Detection and **Experiences and Lessons** Learnt to Achieve Monitoring of Methane Sleep. Incorporating Lessons **Behaviour During Reaction** Azzam Younes, AyEnergi Emissions and the Integration Learned from Offshore Wind Improvements in Plant Runaway for Vent Sizing Consulting, UK **Opportunities with Weather** into Process Safety in Onshore Up-Time and Stability of Yuto Mizuta Turo, Motohiko and Plant Sensor Data Major Hazard Facilities Production Sumino, Hiroaki Nakata, Darren Steele, Stiperstone Stefi McMaster, University of Anees Igbal Ansari & Yuichiro Izato & Atsumi Miyake, Analytics, UK & Dr Ian Spence, Mohammad Moonis, Pleiades Mitsubishi Chemical Corporation, Hull, UK & Jenny Hull, RAS, UK GHGSat, UK Global, UK Japan Facilitated discussion Facilitated discussion Facilitated discussion 11:55-12:30 Facilitated discussion Facilitated discussion 12:30-13:30 Break Dropped in the Deep End – a Personal Senior HSE Management Journey Plenary speaker 13:30-14:25 Terry Cooper, Offshore Petroleum Regulator for Environment and Decommissioning (OPRED), UK Identifying & Embedding Good Practice in **Process Hazard** Clean Technologies -DSEAR Hydrogen I Analysis **Process Safety** Presentation summaries >> Presentation summaries >> Presentation summaries >>> Presentation summaries >>> The Message from Losses – Hydrogen Projects – Business Comparison of Hazardous Area Latest HAZOP Practice 14:30-14:55 What You Need to Know and Classification as Usual? James Fairburn, Chevron, UK Learn From to Prevent Major Clare Dunkerley, Otto Simon, UK David Watts, Pablo Giacopinelli & Accidents Gary Pilkington, Gexcon, UK Paul Clarke & Scott McNeil, Marsh, UK Why Did They Do That? How Application of Functional Process Hazard Analysis for Ammonia, Methane, Hydrogen 15:00-15:25 To Conduct A Human Factors **Oh My! Understanding Hazards** Safety to a Burner Management Smaller Changes: Tips and Incident Investigation from Alternative Power to Gas System – How to Avoid Tools for Avoiding Misses and **Options Common Pitfalls** Improving Quality Steve Cutchen, retired Incident Michael Scott, aeShield, USA Investigator, Chemical Safety Darren Malik & Kelly Thomas, Jody Olsen, Consultant, USA Board (CSB), USA BakerRisk, USA Embedding the Lessons of Developments and The Role of an Innovative Minimising Human Error in 15:30-15:55 Hard Knocks–Trying Not to Approach to DSEAR in Uncertainties in Hydrogen PHA Documentation Repeat Our Mistakes Time and Accelerated Early Career Fuels Risk Assessment Carol Li & Ronjit Mukherjee

	<i>Time Again</i> Ken Patterson, Consultant, UK & Gillian Wigham, Synthomer, UK	Michael Moosemiller, Baker Engineering & Risk Consultants, USA & Rob Magraw, BakerRisk Europe, UK	Development Rebecca Phillip & Adriana Reyes Cordoba, Atkins Global, UK	Risk Alive Analytics, Canada	
16:00-16:25	<i>Identifying and Embedding Good Practice in Process Safety</i> – <i>Safety Culture/Leadership</i> Peter Culbert, Exida, Ireland	Quantification of the Risks Associated with a Hydrogen Gas Distribution Network Andrew Phillips, Mike Acton & Ann Halford, DNV, UK; R Oxley & D Evans, Northern Gas Networks, UK	Facilitated discussion	Facilitated discussion	
16:25-17:00	Facilitated discussion	Facilitated discussion			

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Managing Cyber Security Risks: a Regulator's Perspective **Plenary speaker** 09:30-10:25 Sarabjit Purewal, Health and Safety Executive, UK Clean Technologies -**Digitalisation I** Safety Culture II **Mist Hazards Risk Analysis** Other Presentation summaries >> Presentation summaries >>> Presentation summaries >>> Presentation summaries >> Presentation summaries \rightarrow The Safety Culture of the Best Practices to Optimise Managing the Major Accident Demystifying Mist Explosion **Preliminary Hazard Analysis** 10:30-10:55 Potential of Carbon Capture Regulator and Mitigation for the Management of Change System Hazards and Manage the MOC Digital and Storage CO₂ Prevention of Catalyst Marc McBride, Office for Nuclear Stephanie El-Zahlanieh, Idalba Regeneration Vessel's Transition Hamish Holt & Michael Simms, Souza Dos Santos, Hugo Regulation, UK Catastrophic Rupture Hussain Alabduljabbar, Saudi Tostain & Olivier Dufaud, DNV, UK Aramco, Saudi Árabia University of Lorraine, France; Manesha Thiyaga Rajan, Noor Alexis Vignes, INERIS, France; Arnida Abdul Talip & Hasnor Hassaruddin Hashim, Petronas, Simon Gant, Health and Safety Executive, UK Malaysia Improving Loss Prevention Smoke, Sparks, Flames or Leadership Matters – Real Ignitability of Diesel Fuel New International Failure 11:00-11:25 in High Hazard Industries **Explosions?** An Experimental World Examples of Process Mists over a Vertical Distance Frequency Database for High Through the Evaluation of Study into How Lithium-ion Safety Leadership Good Pressure Gas Installations Louise O'Sullivan & Dr Safety Culture and Error Cell Failure Varies in Open Field Practice Richard Bettis, Health & Safety Mike Acton, C Humphreys & Traps from Structured and Z Wattis, DNV, UK; H Olafsen, Katie Abbott, Jonathan Buston Ashley Hynds & Colin Chambers, Executive, UK; Dr Anthony Unstructured Data Using & Jason Gill, Health & Safety WSP, UK Giles, Cardiff University, UK Energinet, Denmark Machine Learning Executive, UK Gus Carroll & Dr Nyala Noe, Empirisys, UK; Dr Mike Orley, Centrica Storage, UK Flammability Testing for Cyber Attacks on Process Experimental Understanding From Zero Accidents to Safety, Assessing the Risks When 11:30-11:55 Plants and Understanding Expanding Process Plants of Displacement and Forces Quality and Productivity Heavy Oil Mists What is Needed Generated Due to Swelling or Building New Units on Urbain Bruyere, Consultant, UK Hannes Engel, Gexcon, UK During Lithium-ion Pouch Cell **Compact Sites** Clive de Salis, Dekra, UK Failure Robert Canaway, Suregrove, UK Gemma Howard, Jason Gill & Jonathan Buston, Health & Safety Executive, UK Facilitated discussion Facilitated discussion Facilitated discussion Facilitated discussion Facilitated discussion 11:55-12:30 12:30-13:30 Break Title to be confirmed (Climate Change and Decarbonisation Technologies) **Plenary speaker** 13:30-14:25 To be confirmed Fire and Explosion Clean Technologies -**Digitalisation II Case Histories** Hydrogen II Hazards Presentation summaries >>> Presentation summaries >>> Presentation summaries >> Presentation summaries >>> Treating Data as an Asset **Review of the Current** Fight or Flight: What's your Fire Human-Factors and 14:30-14:55 - Experiences of the Early Automation-Related Accidents Understanding of Hydrogen Jet Response? Fires and the Potential Effect on in the Railway Industry **Adopters** Kristen Graham & Karen Vilas, **PFP Performance** Mona Ahmadi Rad, Lianne Brad Eccles, ABS Consulting, UK; Baker Engineering & Risk Henrique Paula, Steve Arendt & Michael Johnson & Robert Consultants, USA M Lefsrud, Michael Hendry Matt Mowrer, ABS Group, USA Crewe, DNV, UK; Graham & Daniel Blais, University of Boaler & John Evans, Thornton Alberta, Canada Tomasetti, UK Investigating Unusual Powder Using Artificial Intelligence and Maximum Overpressure and SafePool 15:00-15:25 Flame Velocity of Methane/ Machine Learning Techniques **Decomposition Incidents** Seckin Gokce, Ahmet Can Hydrogen Lavers Vented to Analyse Incident Reports Stephen Rowe, Clive de Salis, Serfidan, Eyup Azizoglu & Deflagrations in a Large-Scale Fereshteh Sattari, Daniel Kurian, Gokhan Gedik, Tupras, Turkey Simon Gakhar & Andrew Enclosure Jennings, Dekra Organisational Renato Macciotta & Lianne & Process Safety, UK Lefsrud, University of Alberta, David Eduardo Torrado Beltran, James Fletcher, Andrew Tooke Canada & Philip Hooker, Health & Safety Executive, UK; Thomas Isaac, Progressive Energy, UK; Dave Lander, Consultant, UK

15:30–15:55	Practical Guidance for Applying Data Science Techniques in Health & Safety Scott Kimbleton & Graziella Caputo, IBM, USA	Assessment of Enclosure Ventilation Safety for Hydrogen Fuelled Gas Turbines Tristan Vye & Aidan Wimshurst, Frazer Nash Consultancy, UK	The Use of Ester Based Transformer Liquids for Reduced Fire Risk and Lower Costs James Reid, M&I Materials, UK	Investigation into a Microbiologically Induced Corrosion (MIC) Failure of an Onshore Pipeline Keith Birkitt, Aneta Nemcova & Ian Chapman, Health & Safety Executive, UK	
16:00–16:25	Facilitated discussion	The Use of CFD for the Design of Hydrogen Bulk Storage Areas Michael Bristow, Pablo Giacopinelli, Graham Morrison & Gary Pilkington, Gexcon, UK	Facilitated discussion	Facilitated discussion	
16:25-17:00		Facilitated discussion			

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