Hazards30
In association with the Mary Kay O’Connor Process Safety Center

30 November–2 December 2020,
Manchester, UK

Process safety conference
Find out what’s going on
Gold sponsors

- CCE Risk Management Solutions
  Making risk understandable

- Ramboll
  Bright ideas. Sustainable change.

- RAS
  Risk & Hazard Management

Silver sponsors

- ABB

- ESR Technology
  Engineering, Safety & Risk

- Gexcon

- TÜV Rheinland® Risktec

Other sponsors

- ABS Group

- MES

Correct at the time of printing

www.icheme.org/hazards30 #hazards30
Hazards 30
30 November–2 December 2020, Manchester, UK

Europe’s largest annual process safety conference

Hazards 30 is an industry-focused event, exploring every major aspect of process safety and helping you to learn from the experience of others.

Join us to stay up to date with process safety good practice, discover new techniques and approaches, explore lessons learned from past incidents and near-misses, and network with the international process safety community.

2020 marks 60 years since the first Hazards conference was held, also in Manchester. Since then Hazards has grown in size and influence, continuing to be at the forefront of sharing new knowledge and disseminating good process safety practice across the process industries and beyond.

Key features

■ 100+ oral presentations and posters from industry practitioners, researchers and regulators
■ Inspirational plenary speakers
■ Panel discussion
■ Workshops exploring key topics in more depth
■ Trade exhibition of process safety products and services
■ Social events and networking opportunities

Who should attend?

If you are active in process safety and risk management for chemical process facilities, or other facilities dealing with hazardous materials, Hazards 30 is the ideal event for you.

Process safety professionals working at all levels and across all industry sectors will benefit from attending.

Typical delegates include:

■ Process safety practitioners in industry
■ Process safety consultants and safety specialists
■ Senior industry leaders accountable for process safety without day-to-day responsibility
■ Academic researchers
■ Regulators and representatives from industry bodies

“If you want your business to stay safe, to avoid catastrophe, to improve its safety record, you need to learn what is good practice, and there’s no better place for doing that than at Hazards.”

Laurence Cusco, Health and Safety Executive & Chair of the Hazards 30 technical committee

#hazards30 www.icHEME.org/hazards30
Why attend Hazards 30?

Learn from experts
Over 100 specialists and industry peers working in all industry sectors will share their process safety knowledge and experience including lessons learned and latest research.

Review good practice in process safety
Presentations and posters will share lessons learned from what’s worked well (and not so well) so that you can apply good practice to your own operations.

Get comprehensive technical insight
The programme will cover all the functional areas that are key to managing and reducing process risk effectively, including engineering and design, systems and procedures, knowledge and competence, human factors, assurance, culture, and environmental protection.

Get industry insights and benchmark your company
Hear presentations and view posters from industry practitioners, regulators and researchers. We’re pleased to include contributions from Atkins, Health and Safety Executive Office for Nuclear Regulation, Sellafield Ltd, Shell, Sygenta, Total, Wood and many, many more.

Have your say
As well as Q&A at the end of every presentation, you’ll have the chance to put questions to industry experts during a panel discussion on 2 December. Discussion will focus on how to learn effective lessons from the past.

Network with your peers and make new contacts
There will be plenty of opportunity to network with delegates, presenters, exhibitors and speakers during the event, including a free welcome drinks reception on 30 November and an informal social event on 1 December.

Find out what’s new in process safety
Process safety is constantly developing and Hazards 30 is a great opportunity to discover the latest research and developments in the field.

Discover new products and services
Make new contacts and discover products and services to support you in improving process safety performance at our extensive exhibition running alongside the conference. Visit www.icheme.org/hazards30 to see who’s exhibiting.

Meet Continuous Professional Development (CPD) requirements
Attending Hazards 30 is a great way to demonstrate commitment to your personal and professional development. What’s more, if you have the Professional Process Safety Engineer registration (www.icheme.org/ppse) in your sights, then you’ll be able to attend a free information session to find out more about it and how to start or progress your application.

Reflect on the process safety journey
The 60th anniversary of Hazards is a fitting time to reflect on the past, present and future of process safety. We’ll be reflecting on the key milestones so far on the process safety journey, what’s been achieved already, and the challenges that lie ahead.

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Plenary speakers

Piper Alpha – an Accident or a Predictable Surprise?
Steve Rae, Step Change in Safety
Steve was one of only 61 survivors of the 1988 Piper Alpha disaster in which 167 perished. He will draw on his experience of the disaster to demonstrate why he feels it was no accident, rather a ‘predictable surprise’, and why many major accidents, near misses and incidents should be defined in the same way.

Hazards Management in a Climate Emergency: We’re All in It Together!
Jo Nettleton, Environment Agency
Jo will discuss the challenges posed to existing major hazards industries from more extreme weather events, and the impact of adapting to a net zero economy.

Learning Lessons Today for Safety Tomorrow
Maureen Heraty Wood, Major Accident Hazards Bureau
Maureen will explain how we can use what we already know about chemical accident risk to help shape a strategy for chemical risk management in an unknown future.

Reflections on the Lessons from Longford and its Legacy
Margaret Donnan, IChemE Safety Centre
Margaret will explore the main lessons from the Longford gas plant explosion in 1988 and how they shaped a new major hazard regulatory regime in Australia.

Visit www.icheme.org/hazards30 to find out more about our plenary speakers and their presentations.

Agenda
Note: the programme may be subject to alteration

Monday 30 November 2020

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<td>ISC Case Study: Tank Farm–Simulating Operational Decisions</td>
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<td>Incident Investigation, Human Factors &amp; Cause Tree Analysis</td>
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<td>Risk-Based Decision Modelling</td>
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<td>ISC Case Study: Underground Pipeline–Managing Business Risk</td>
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<td>Introducing and Embedding Process Safety</td>
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<td>Human Factors in the Process Industries</td>
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<td>Introduction to the poster presentations</td>
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<td>19:30–21:00</td>
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* Visit www.icheme.org/hazards30 to find out more about the workshops

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**Tuesday 1 December 2020**

**Planetary presentations**

**Session One: Human Factors**

**10:55-11:20**

- **Human Performance and the Fourth Industrial Revolution**
  - Roger Sideman, BakerHugh Europe, UK

- **Virtual Dust Hazard Analysis – Understanding the Hidden Challenges**
  - Daniel Hart, Process Safety Integrity, UK & Michael Murray, Mas, USA

- **A Toolbox to Help Guide Personnel Learn From Incidents**
  - Claire & Mark Allen, DPM, UK; [P]Prestige, AMR, USA

**11:25-11:50**

- **Making Sure You’re Not “Watching” a Human Error**
  - James Burt, The Rail Centre, UK

- **Can the Wrong Form of Contract Be a Human Performance Problem and Marginal Gains**
  - Caroline Sabin, Human Reliability Associates, UK

**11:55-12:20**

- **Enhancing the Performance of Safety Critical Systems: The Grid of Things**
  - Dominic Funes, Janice Henderson, Mark Smith & David Drury, Human Reliability Associates, UK

- **Modelling Self-Help Skills**
  - Stephen Pearce, Sungun, UK

**12:25-12:50**

- **Overseas Events: Division Safety. Actions. Causes or Consequences**
  - Matt Kay, Marie Calvet & Michael Grainger, Safer Operations, UK; Hong Kong, University of Manchester, UK

- **The Applications of Machine Learning to Accidents and Incidents**
  - Kata Mihalikniski, Man in the Loop and Hazard Reduction, Machine Learning, University of Manchester, UK & Industrial Risk and Safety Solutions, Norway

**13:00-13:25**

- **Development of a Model for Spills of Hydrocarbons in UK Waterways**
  - Rachel Rob, Health and Safety Executive, UK; Craig Tickle, Mica, UK

- **Is a Partial Inadequate Insulation More of a Multiple Risk—An Example of Logic of Practice Analysis**
  - Dr Carl Chambers, Health and Safety Executive, UK

- **Strength of the Application for Boulevard of the CVI Reporting, Forensic Remediation and New York Bathroom in Modulated LNG Plant**
  - Steve Greenaway, Modulated LNG Plant

**13:30-13:55**

- **Land Use with Better and Sustainable Design**
  - Simon Bellenger, Shell Research, UK

**14:00-14:25**

- **The Natural Hazards of a Nuclear Licensed Site**
  - Andrew Carson, Sam and Matt, UK; Craig Anderson & Nick Procter, Wood, Germany & I Vince, ASK Consultants, UK

- **An Integrated Approach to Establishing the Hazards, Risks and Controls at a Nuclear Licensed Site**
  - John Hare, Health and Safety Executive, UK; Hilary Beveridge, ABB, UK

**14:25-14:50**

- **How Do You Carry Out a DSEAR Risk Assessment When There Are Many Natural Gas Sources?**
  - Alfonso Mischler & Peter Hughes, ABB, UK

- **A Household Gas Event or a Risk to Public Safety?**
  - Joni Stein, EDF Energy, UK & Robert Brownless, Inovintech, UK

**14:50-15:15**

- **Modelling Self-Heating Solids**
  - Dr Fan Ye, ESC, UK

- **Managing Confusion over Risk Criteria**
  - Carolyn Nicholls & Jordan Smith, RAS, UK

**15:15-15:40**

- **A Lifeline in Natural Hazards: Designing, Manufacturing and Testing**
  - Karen Vilas, BakerRisk, USA & Robert Garrett, DNV GL, UK

- **Safe Operation of Combined Cycle Plants**
  - Karen Vilas, BakerRisk, USA & Robert Garrett, DNV GL, UK

**15:40-15:55**

- **Towards an Operation of Hydrogen Fuelling Risk in Essential**
  - Dave Moore, Borealis, UK & Bob Maddox, Magnox Risk, UK

- **The TOP 10 Considerations for First Operations of an Alternative Comparative Approach for Safety Cases**
  - Seena Howard & Future Model, Altus

**16:00-16:25**

- **Alarm Management in the Oil and Gas Industry**
  - John Hare, Health and Safety Executive, UK; Ian Bell, University of Manchester, UK

- **Bio-Methane in the Food and Liquefied Petroleum Gas (LPG) Industry**
  - Reginald Fong, Institute for Technical and Scientific Research, The Netherlands

**16:25-16:50**

- **Controlling the Use of Highly Flammable Substances**
  - Craig Anderson & Nick Procter, Wood, Germany & I Vince, ASK Consultants, UK

- **Hydrogen Fuelling Risks Is Essential**
  - Stuart King, Energy Institute, UK

- **Assumptions About Likely Fatalities to Severe Weather Hazards to Offshore Operations**
  - John Hare, Health and Safety Executive, UK; Craig Anderson & Nick Procter, Wood, Germany & I Vince, ASK Consultants, UK

**16:50-17:05**

- **Learning from Creeping Changes**
  - John Hare, Health and Safety Executive, UK; Craig Anderson & Nick Procter, Wood, Germany & I Vince, ASK Consultants, UK

- **Safe Operation of Combined Cycle Plants**
  - Karen Vilas, BakerRisk, USA & Robert Garrett, DNV GL, UK

- **Safety Solutions, The Netherlands**

**17:05-17:30**

- **Taming the Beast – Lessons Learned**
  - Graeme Dick & Mike Pollard, Reflekt AS, UK

- **Explosions**
  - Wayne Rudge, Health and Safety Executive, UK

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**17:30-18:00**

- **Session Chair: Brian Germain**

- **Human Reliability: An Integrated Approach**
  - Chris Bell & Matthew Celnik, DNV GL, UK

- **Modelling and Experimental Flammability**
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**19:00-20:00**

- **Social event**
Wednesday 2 December 2020

09:00-09:40  Plenary presentation
Reflections on the Lessons from Longford and its Legacy
Margaret Dormian, IChemE Safety Centre, Australia

09:40–10:20  Panel discussion
How Do You Learn From the Mistakes of Others Before You Make Your Own?
Panel members TBC

10:20–10:50  Refreshment break with poster and exhibition viewing

10:55–11:20  Safety Culture I
Session chair: Richard Hobday

10:55–11:20  Session Chair: Final Ceremonies

11:25–11:55  Risk Management II
Session chair: Ingrid ten Kate

11:25–11:55  Building a Culture of Risk Management at the Scottish Power

11:55–12:20  Human Factors II
Session chair: Arvinder Saimbi

11:55–12:20  Developing a Human Factors Culture – Bridging the Power Distance

12:25–12:50  Fire and Gas Detection
Session chair: James Birch

12:25–12:50  A Three-Decade Review of Risk Management in the UK Refuelling Stations

12:50–13:50  Lunch break with poster and exhibition viewing

13:55–14:20  Safety Culture II
Session chair: Jonathan Wiseman

13:55–14:20  How Do You Learn from the Mistakes of Others Before You Make Your Own?

14:25–14:50  Inherent Safety Performance
Session chair: Andrew Taylor

14:25–14:50  Improving Accident Prevention in the Chemical Process Industry

14:55–15:20  Regulation
Session chair: Jonathan Wiseman

14:55–15:20  Interactions in Process Control

15:25–15:40  Plenary session
Closing session to include the poster prize presentation

As well as oral presentations, there will be wealth of process safety knowledge and experience shared in poster form, available to view throughout the conference. Poster titles will be published on the conference website as authors confirm their attendance.

www.icheme.org/hazards30  #hazards30  www.icheme.org/hazards30
Practical information

Venue
Manchester Central
Petersfield, Manchester M2 3GX, UK

Location
Manchester Central is located in the heart of Manchester and is easily accessible by rail, road or air.
Visit www.icheme.org/hazards30-venue for more travel information.

Accommodation
Accommodation is not included in the conference fee and you will need to make your own arrangements. If you need any help finding a hotel in Manchester, follow the link provided at www.icheme.org/hazards30

How to register
Register online at www.icheme.org/hazards30

Contact us
Contact us on +44 (0)1788 534496 or email hazards@icheme.org

Conference fees
IChemE Member – £975 + VAT
Non-member – £1150 + VAT
Presenting author – £600 + VAT
Student – £275 + VAT
Social event – £65 + VAT

What’s included:
- workshop attendance on 30 November
- plenary sessions
- technical presentations and information sessions
- access to the exhibition area on 30 November–2 December
- welcome drinks on 30 November
- lunches and refreshment breaks on 1–2 December

Attendance at the social event is optional, at an additional fee.

Interested in sponsoring or exhibiting at Hazards 30?
We have sponsorship and exhibition packages to suit all budgets, all providing excellent opportunities to:
- highlight your brand
- present your products and services
- network and make new contacts
- expand your process safety knowledge
- understand the issues and concerns in the industry

Visit www.icheme.org/hazards30 to find out more and to see who’s already on board.
Thank you to our exhibitors:

- ABB
- ABS Group
- BakerRisk
- CGE Risk Management Solutions
- Cogent Skills
- DEKRA
- DNV-GL
- Energy Institute
- ESR Technology
- FM Global
- Gexcon
- Human Reliability
- ioMosaic
- MES
- Micropack Fire & Gas
- Ramboll
- RAS
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