



WorkSafe Petroleum Safety and Dangerous Goods human factors industry forum 2023



Acknowledgement of Country

We respectfully acknowledge Aboriginal peoples as the Traditional Custodians of this land on which we deliver our services to the communities throughout Western Australia. We acknowledge their enduring connection to the lands, waterways and communities and pay our respects to Elders past and present.

Lions Lookout, Korung National Park (Photo credit: Tourism Western Australia)





About the event

The WorkSafe Petroleum Safety and Dangerous Goods Human Factors Industry Forum brings together opportunities to learn more about human factors in industry through insightful talks and practical case studies from industry speakers and the regulator.

In the science of work health and safety, human factors is understood as the elements within the work environment, systems and job itself that influence and shape human performance.

The WorkSafe Petroleum Safety and Dangerous Goods Directorate (WorkSafe) is responsible for the 22 major hazard facilities (MHF) and 56 petroleum and geothermal energy companies that conduct drilling, pipelines and production operations related to petroleum and geothermal energy in Western Australia (WA).

Each of these facilities and operations has the potential for an incident on a catastrophic scale if the operations are not conducted safely.

WorkSafe recognises the need to proactively address human factors and the important role we play in establishing industry-wide good practice within MHF and petroleum and geothermal energy operations.

The Human Factors Forum is part of the broader WorkSafe Petroleum Safety and Dangerous Goods Human Factors Capability Strategy; a multi-year strategy to build internal and external human factor capability through stakeholder engagement, education and guidance, industry forums and an industry-wide project to establish an industry baseline for integrating human factors into safety management systems.



Scan the QR code for more information on Human Factors within major hazard facility, petroleum and geothermal energy operations.

Welcome

Welcome to the 2023 WorkSafe Petroleum Safety and Dangerous Goods Human Factors Industry Forum.

Human factors are an integral component of safe and reliable operations within major hazard facility (MHF), petroleum, geothermal and energy operations.

Today's forum will feature a number of speakers showcasing human factors in industry from both operator and regulator perspectives, along with a panel discussion on human factors focus areas for Petroleum Safety and Major Hazard Facility teams.

Thank you all for your participation in the forum, and I trust you will find it a valuable learning experience that will help improve health and safety outcomes in your workplaces.

Sally North
Acting WorkSafe Commissioner, WorkSafe WA

Program

Time	Topic	Presenter	
8:30 am	Registration and light refreshments		
9:00 am	Opening remarks from the WorkSafe Commissioner	Sally North, Acting WorkSafe Commissioner, WorkSafe WA	
9:15 am	Regulator perspective: WorkSafe Petroleum Safety and Dangerous Goods human factors capability building strategy	lain Dainty, Director, WorkSafe Petroleum Safety and Dangerous Goods	
9:30 am	Regulator perspective: Human Factors Industry Baseline Project findings	Justine McGillivray, Principal Inspector – Human Factors, WorkSafe Petroleum Safety and Dangerous Goods	
10:00 am	Refreshment and networking break		
10:20 am	Showcase case study 1: Petroleum and geothermal energy operations – Incorporating psychosocial hazard management into a petroleum safety case: the interaction with major accident event prevention	Bryce McLaren, HSE Manager, Buru Energy Limited	
10:50 am	Showcase case study 2: Major hazard facility operations – Behavioural human factors contributing to a near miss	Graeme Offer, Regulatory Compliance & Safety Specialist, Hexion	
11:20 am	Showcase case study 3: Major hazard facility operations – Dangerous Goods Transfer case studies: Misadventures in paradise	Stephen Lane, Principal Inspector, WorkSafe Petroleum Safety and Dangerous Goods	

Time	Topic	Presenter	
11:50 am	Lunch and networking		
12:50 pm	Showcase case study 4: Petroleum and geothermal energy operations – Human factors: When every control goes wrong	John Wilson, Head of Health & Safety Transmission, Australian Gas and Infrastructure Group	
1:20 pm	Showcase case study 5: Major hazard facility operations – The EDL human factors journey so far	Keith Sargent, LNG Duty Plant Manager, EDL	
1:50 pm	Showcase case study 6: Petroleum and geothermal energy operations – Psychosocial Health Program implementation learnings	Russell Scott, Head of HSE, MITSUI E & P Australia	
2:20 pm	Refreshment and networking break		
2:50 pm	Technical session: HAZOP Considerations – Putting people first	Eunice Lai, Human Factors Project Officer, WorkSafe Petroleum Safety and Dangerous Goods	
3:20 pm	Regulator perspective: Human factors focus areas for Petroleum Safety and Major Hazard Facility teams and Q&A with the team leaders	Vaughn Hinkley, Petroleum Safety Team Leader, and Luke Van Baaren, Major Hazard Facility Team Leader, WorkSafe Petroleum Safety and Dangerous Goods	
		Facilitated by Iain Dainty, Director, WorkSafe Petroleum Safety and Dangerous Goods	
3:50 pm	Regulator perspective and closing remarks	lain Dainty, Director, WorkSafe Petroleum Safety and Dangerous Goods	
4:00 pm	Close		

Our speakers

Sally North

Acting WorkSafe Commissioner, WorkSafe WA

Sally North is the Acting WorkSafe Commissioner, greatly valuing the opportunity to make a difference to the community through WorkSafe's education, inspections, investigations, legal and regulatory support teams and through collaborating with stakeholders.

Sally has led a WorkSafe directorate including specialist teams on human factors and ergonomics, asbestos, occupational hygiene, plant and engineering, and industry groups covering the public sector and related industries, and the retail and service industries. She has also acted as the Deputy WorkSafe Commissioner and is involved in State and national committees and working groups on work health and safety.

Sally has qualifications in chemistry, OSH, occupational hygiene and business administration.

lain Dainty

Director, WorkSafe Petroleum Safety and Dangerous Goods

lain comes from a strong safety regulatory background and is the Director WorkSafe Petroleum Safety and Dangerous Goods in WA. He has significant regulatory and compliance experience in explosives and general workplace environments, having more than 25 years' experience in the business.

As a regulator, his focus is on safety management and holding people and organisations accountable for their commitments to that safety. He manages three teams that believe in educating and informing. He is not afraid of change or implementing change, and struggles with the concept that we only do things in a particular way simply because that's the way we have always done it.

lain holds a number of Work Health and Safety diploma and certificate qualifications and has an MSc in Risk, Crisis and Disaster Management from

Leicester University (UK).

Justine McGillivray

Principal Inspector – Human Factors, **WorkSafe Petroleum Safety and Dangerous Goods**

Justine is an organisational psychologist and co-founder and previous National President of the Society for Industrial and Organisational Psychology Australia. Justine has extensive experience in applying human factors to health and safety at work.

Justine is the Principal Inspector – Human Factors at WorkSafe Dangerous Goods and Petroleum Safety. She is leading the Human Factors Capability Strategy which is a multi-year strategic plan aimed at building internal and external capability within major hazard facilities, petroleum and geothermal energy operations.

Bryce McLaren

HSE Manager, Buru Energy Limited

company with its core operations in the onshore Canning Basin. Bryce has 14 years' experience in HSE risk management, primarily in the oil and gas industry. As Buru's HSE Manager, Bryce oversees HSE risk management, approvals, compliance and reporting for a range of petroleum activities.			

Graeme Offer

Regulatory Compliance & Safety Specialist, Hexion

Graeme lived in the north west for a number of years where he worked as an electrical instrument technician for Rio Tinto at the Dampier Power Station, as well as Transfield Worley at the Woodside gas plant in Karratha.

Graeme also spent a few years at the Rio Tinto alumina refinery near Gladstone.

Graeme has been at Hexion Australia in the south west for 14 years, commencing as the site's Electrical & Instrumentation Technician, then the Maintenance Supervisor for several years. Graeme has now focused his attention on EHS and now looks after Hexion's Regulatory Compliance & Safety systems where he is heavily involved in the site's compliance activities and safety management system along with any incident investigations and training on site.

Stephen Lane

Principal Inspector, WorkSafe Dangerous Goods and Petroleum Safety

Stephen has pursued a host of scientific and educational roles since graduating with a science degree in 1983, including six years as an analytical chemist followed by a 10 year stint as science faculty head.

He has worked in the Dangerous Goods Safety team in WorkSafe Dangerous Goods and Petroleum Safety Directorate since 2005, principally involved in transport safety assessments for road and rail, chairing the Competent Authority Panel through 2013-15.

Stephen is a keen auditor who, since moving to the MHF team of the Directorate in 2019, has gained Functional Safety accreditation that has been put to good use in case managing LNG processing facilities.

Stephen is an avid Richmond Tigers football supporter – does not let that

cloud his judgement – and baker of focaccias.

John Wilson

Head of Health & Safety Transmission, **Australian Gas and Infrastructure Group**

working on large construction projects in both oil and gas and mining throughout Australia. John currently has oversight of the Dampier Bunbury pipeline, Tubridgi gas storage facility in Onslow, Tanami gas pipeline in the Northern Territory, Hydrogen park in South Australia and Hyp Gladstone in Queensland. His focus is on developing health and safety controls and strategies that are driven from the workforce. Since starting with AGIG, John has developed a safety culture where events and near misses are reported without fear of retribution and accountability is maintained.

Keith Sargent

LNG Duty Plant Manager, EDL

Keith has been Plant Manager at EDL's LNG plant in Karratha for 10 years. With 40 years in manufacturing and engineering, he has worked through many versions of process improvement. EDL's aspiration for excellence in safety and to be the employer of choice has led to much work on the people side of the business. Keith will talk about how that work has influenced the culture at EDL.

Russell Scott

Head of HSE, MEPAU

Russell has 25 years of major capital project and regional HSE management experience both within Australia and internationally, including Indonesia, Iraq, Malaysia and the USA. He joined Mitsui E&P Australia (MEPAU) in 2019.			

Eunice Lai

Human Factors Project Officer, WorkSafe Dangerous Goods and Petroleum Safety

Eunice is a provisional psychologist who is currently completing her Master of Industrial and Organisational Psychology. Eunice has experience in human factors consulting and in applying human factors to health and safety at work. She intends to continue working in human factors and contribute to improving workplaces and making work safer.	

Vaughn Hinkley

Petroleum Safety Team Leader, **WorkSafe Petroleum Safety and Dangerous Goods**

Vaughn is the Team Leader of the Petroleum Safety team in the WorkSafe

Petroleum Safety and Dangerous Goods Directorate. He is experienced as a technical regulator of petroleum operations for the last five years and has worked in private industry for 15 years within oil and gas. Vaughn has extensive experience in construction, vessels, rigs, pipelines, complex investigations and operations in various fields.	

Luke Van Baaren

Major Hazard Facility Team Leader, WorkSafe Petroleum Safety and Dangerous Goods

Luke is currently the Major Hazard Facility Team Leader in the WorkSafe Petroleum Safety and Dangerous Goods Directorate.

As a mechanical engineer, he has worked in private industry, with experience in design, construction and operations in various fields.

As a public servant, he has experience as a technical regulator of gas, petroleum, dangerous goods and major hazard facilities.		

Additional notes

Human factors



5 principles of human performance

- Variation in human performance is normal
- Learning is vital



- Blame fixes nothing
- Context drives behaviour
- Leadership response matters





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