

LOW TEMPERATURE PRESSURE SYSTEMS: NEW GUIDANCE FOR OPERATORS AND DESIGNERS

Institution of
**MECHANICAL
ENGINEERS**

Pressure Systems Group
Seminar

28 June 2017

IMechE Engineering Training Centre, Sheffield

KEY SPEAKERS INCLUDE:

David Glass, Principal Specialist Inspector
Health and Safety Executive

Isabel Hadley, Technical Authority,
Integrity Management
TWI Ltd.

Geoff Evans, Segment Engineering Technical
Authority, Static Mechanical
BP Exploration & Production Company Limited

Tony Neale,
Pressure Systems Standards & Quality Manager
Calor Gas

Oscar Kallerdahl, Vice President LNG Systems
Rolls-Royce



SUPPORTING ORGANISATIONS:



EVENT PARTNER:



www.imeche.org/lowtemperature

LOW TEMPERATURE PRESSURE SYSTEMS: NEW GUIDANCE FOR OPERATORS AND DESIGNERS

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LOW TEMPERATURE PRESSURE SYSTEMS IS AN UNMISSABLE SEMINAR TO HEAR FROM LEADING ENGINEERS. GAIN INSIGHT INTO CURRENT MATERIALS REQUIREMENTS AND TRENDS IN THE DESIGN AND OPERATION OF THE VESSELS.

Hear about the newly launched Engineering Equipment and Materials Users Association (EEMUA) guidelines for brittle fracture screening of piping systems and vessel materials test requirements. Benefit from best practice case studies on meeting regulatory requirements and industry guidance for the operation and maintenance of ageing cryogenic storage systems. Learn how design and operation of new liquefied petroleum gas (LPG) and liquefied natural gas (LNG) tanks and storage systems have been optimised.

Join the discussion on successful strategies that will enable you to enhance the operational lifespan of your assets and ensure they are compliant with the latest regulation.

KEY PROGRAMME HIGHLIGHTS:

- The **Health and Safety Executive (HSE)** will present the expectations of the current standard HS(G)93 and the potential refresh plans
- **BP Exploration & Production Company Limited** will present EEMUA's new guidelines on Brittle Fracture Screening for Piping Systems
- **Calor Gas** will discuss how they operate large low temperature LPG storage vessels
- **TWI** and **IWT-Solutions AG** talk about steel selection criteria to avoid brittle fracture of pressure vessels according to PD 5500 and EN 13445-2
- **The British Compressed Gases Association (BCGA)** present the in-service requirements of cryogenic storage systems
- **Rolls-Royce** discuss the design of LNG fuel systems for marine propulsion

ATTEND THIS EVENT TO:

- Be the first to hear the new EEMUA Guidelines on Brittle Fracture Screening for Piping Systems to help you with your systems
- Learn from case studies on the operation and maintenance of low temperature storage systems to enhance your own processes
- Ensure you are compliant with PD 5500 with a technical overview of material test requirements for low temperature vessels
- Understand the impact of the requirements on the design and operation of LPG and LNG storage vessels
- Be part of the debate regarding the acceptability of the composition of materials supplied
- Network with key leaders in low temperature pressure systems from operators, regulators and suppliers

ORGANISING COMMITTEE:

Pressure Systems Group
Institution of Mechanical Engineers

MEMBERS CREDITS:

John Wintle, Consultant Engineer and Technology Fellow
TWI Ltd.

Reis Gabernet, Chemical Engineer and Technical Executive
The Engineering Equipment and Materials Users Association (EEMUA)

Duncan Kingan, Mechanical Engineer
BP Exploration & Production Company Limited

PROGRAMME

WEDNESDAY 28TH JUNE 2017	
08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIR'S OPENING REMARKS John Wintle, Consultant Engineer and Technology Fellow, TWI Ltd.
	MATERIALS TEST REQUIREMENTS FOR PRESSURE VESSELS AND PIPING
09:05 KEYNOTE	PREVENTION OF BRITTLE FRACTURE IN PRESSURE VESSELS: A COMPARISON OF DESIGN CODE REQUIREMENTS Isabel Hadley, Technical Authority, Integrity Management, TWI Ltd.
09:30	STEEL SELECTION CRITERIA TO AVOID BRITTLE FRACTURE ACCORDING TO EN 13445-2 Peter Langenberg, Chairman, IWT-Solutions AG
09:55	NEW ENGINEERING EQUIPMENT AND MATERIALS USERS ASSOCIATION (EEMUA) GUIDELINES ON BRITTLE FRACTURE SCREENING FOR PIPING SYSTEMS Geoff Evans, Segment Engineering Technical Authority, Static Mechanical, BP Exploration & Production Company Limited
10:20	QUESTION AND ANSWER SESSION
10:35	NETWORKING REFRESHMENT BREAK
	REGULATORY GUIDANCE
11:05 KEYNOTE	THE ASSESSMENT OF PRESSURE VESSELS OPERATING AT LOW TEMPERATURE: HS(G)93 PAST AND PRESENT David Glass, Principal Specialist Inspector, Health and Safety Executive (HSE)
	LIQUEFIED PETROLEUM GAS (LPG) AND LIQUEFIED NATURAL GAS (LNG) STORAGE: DESIGN AND LIFE-CYCLE MANAGEMENT
11:30	CALOR OPERATIONAL LPG STORAGE VESSELS OPERATING AT LOW TEMPERATURE Tony Neale, Pressure Systems Standards & Quality Manager, Calor Gas
11:55	LPG TANKS: LIFE-CYCLE REVIEW Duncan Kingan, Mechanical Engineer, BP Exploration & Production Company Limited
12:20	QUESTION AND ANSWER SESSION
12:35	NETWORKING LUNCH
13:35	DESIGN OF LNG FUEL SYSTEMS FOR MARINE PROPULSION Oscar Kallerdahl, Vice President LNG Systems, Rolls-Royce
14:00	KEY CHALLENGES IN INTEGRITY MANAGEMENT OF PRESSURE SYSTEMS IN AGEING LNG FACILITIES Azrul Hilmi, Integrity Management Consultant, DNV GL - Oil and Gas
14:25	QUESTION AND ANSWER SESSION
14:35	NETWORKING REFRESHMENT BREAK
	OPERATION AND MAINTENANCE OF CRYOGENIC STORAGE SYSTEMS
15:05	DESIGN CONCEPTS AND OPERATION OF CRYOGENIC STORAGE SYSTEMS Stuart Williams, Applications Equipment Manager, Air Products Plc
15:30	IN-SERVICE REQUIREMENTS OF CRYOGENIC STORAGE SYSTEMS Jake Lake, Technical Manager, British Compressed Gases Association (BCGA)
15:55	QUESTION AND ANSWER SESSION
16:05 PANEL DISCUSSION	IMPACT OF STANDARDS AND GUIDANCE ON DESIGN AND OPERATION <ul style="list-style-type: none"> • How does the industry best react to recent changes in pressure vessel and piping requirements? • How will changes to the composition of ASME piping materials impact their acceptability? • How can the industry learn about developments in international standards and codes?
16:50	CHAIR'S CLOSING REMARKS
17:00	END OF SEMINAR

For the most up-to-date and detailed programme for the event, please visit www.imeche.org/lowtemperature

- This programme is subject to change.
- The Institution is not responsible for the views or opinions expressed by individual speakers.

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