



International Conference

Cryogenic Storage Tanks

April 18 – 19, 2024
Munich, Germany

[Program](#)



The Conference

Liquefied gases are used in a wide range of applications in many industrial sectors. The increasing demand for refrigerated liquefied gases requires the use of suitable storage facilities.

Compliance with various technical and legal requirements during design, construction and operation of such facilities is necessary for safe operation of cryogenic storage tanks.

TÜV SÜD warmly invites you to attend the fourth Symposium **Cryogenic Storage Tanks** to be held in Munich. The main conference topics are current international tank standards, tank design criteria, risk assessment & safety concepts, net zero climate goal and erection & construction. The program committee looks forward to having the opportunity for intensive, objective and professional discussions based on the lessons learned and experiences of the participants during this year's conference.

Committee

Peter Ball

TÜV SÜD Industry Service GmbH

Norman Bruckhaus

Linde GmbH Engineering Division

Dr. Michael Davies

Braunschweiger Flammenfilter GmbH

Michael Krämer

TÜV SÜD Industry Service GmbH

Uwe Luitjens

Mabanaft Deutschland GmbH & Co. KG

Dr. Josef Rötzer

TGE Gas Engineering GmbH

The Conference is intended for

- Chemical and petrochemical industry as well as energy providers
- Operators of plants with cryogenic tanks/semi-refrigerated tanks
- Manufacturers of cryogenic tanks/semirefrigerated tanks
- OEMs of accessories
- OEMs of metallic, concrete or insulation components
- Associations
- Technical experts and engineering service providers
- Consultants
- Insurance Brokers and Underwriters
- Investors
- Authorities Having Jurisdiction, Third Parties

Exhibition

Interested companies have the opportunity to present their products and services at the exhibition which will be held parallel to the conference.

For more details about costs and availability, please contact

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Agenda

April 18, 2024

- 09:20 **Welcome**
TÜV SÜD Industry Service GmbH
- 09:30 **Overview of LNG risk management**
Georges A. Melhem, ioMosaic Corporation (US)

National and International Regulations & Standards

- 10:15 **Overview of the revision of EN 14620**
Dave Ward, Wardz Consulting Ltd. (UK)
- 10:40 **Weak roof design and code comparison for flat bottom tanks**
Dr. Chunliang Zhang, Linde Engineering APAC Co.,Ltd. (CN)
- 11:05 **Overview of the relevant standards and the process of standardization**
Michael Krämer, TÜV SÜD Industry Service GmbH; Ugur Bozkas, DIN e.V. (DE)
- 11:30 **Coffee break**

Cryogenic Storage Design

- 12:00 **Ammonia tank design in Europe**
Dr. Till Waas, Linde GmbH Engineering Division (DE)
- 12:25 **Interfaces of an integrated cryogenic tank design**
Daniele Salvatore, Dr. Catherine Dix, Dr. Mahmood Tavallae, Technodyne International Limited (DE)
- 12:50 **Lunch**

- 13:50 **Vacuum insulated pipes, couplings and valves for deep cryogenic service – requirements and applications**
Dr. Bernhard Reiter, Butting CryoTech GmbH (DE)
- 14:15 **Application of the new ACI 376-23 requirements for the liquid spill design case**
Jörg Schwering, Dr. Josef Rötzer, Mario Wilke, TGE Gas Engineering / Technodyne International Limited (DE)
- 14:40 **Simplified approach for soil-pile-structure interaction analysis of LNG tanks**
Dr. Muaz Al-Dimashki, Bechtel Energy / Tank Engineering (US)

Risk Assessment & Safety Concepts

- 15:05 **Cryogenic Storage Tanks in fire incidents**
Dr. Robert Eberwein, Aliasghar Hajhariri, Frank Otremba, Bundesanstalt für Materialforschung und -prüfung (BAM) (DE); Davide Campese, Giordano Emrys, Scarponi, Valerio Cozzani, Alma Mater Studiorum – Università di Bologna (IT)
- 15:30 **Coffee break**
- 16:00 **Calculating firewater demand for LPG systems**
Dr. John Barker, Karen Jawich, ioMosaic Corporation (UK)
- 16:25 **Numerical analysis of steel tanks subjected to high detonation pressure: A case study on ammonia tanks with 300 mbar overpressure**
Dr. Julia Rosin, Dr. Alessandro Stocchi, Fraunhofer-Institute for High-Speed Dynamics, Ernst-Mach-Institut, EMI (DE)

- 16:50 **Assessment of pressure relief vent fires on concrete roofs of LNG storage tanks**
Neville J Stokes, Bechtel Energy / Tank Engineering (US)
- 17:15 **End of the first conference day**
- 19:00 **Evening event**

Agenda

April 19, 2024

Typical tasks and lessons learned

- 09:00 **Applying modern day venting standards to legacy tanks, Canvey Island Project Rejuvenation – Calor Gas**
Brad Luckman, Michael Davies, Braunschweiger Flammenfiter GmbH (DE)

Net Zero Climate Goal

- 09:25 **Liquid hydrogen storage – Overview on the state-of-the-art design from small to large scale**
Christina Schmieder, Linde GmbH Engineering Division (DE)
- 09:50 **NH3 ready LNG land storage tanks**
Amaury Mangé, Gaztransport & Technigaz (FR)
- 10:15 **Coffee break**
- 10:45 **LCO2 Storage – Scaling up designs to meet higher expected storage requirements for CCUS projects**
Deepak Kukrety, CryoZen Consulting Engineers (SG)

- 11:10 **Novel use of tank material for green fuels**
Sara Evangelisti, Alessandra Isetto, Dario Galli, Mauro Evangelisti, Gas and Heat (IT)

- 11:35 **Bavarian breakfast**

Erection & Construction

- 12:35 **Modular Membrane LNG Storage Tanks: the last missing link for full LNG plant modularization**
Natalia Zubenko, Gaztransport & Technigaz (FR)
- 13:00 **Modular construction of refrigerated liquefied gas (RLG) tanks**
Alex Cooperman, CB&I Storage Solutions (US)
- 13:25 **Quick overview of roof air lifting activity – safety considerations and risk mitigation by integrating design and construction – Collection of Lessons learned from former projects**
Sebastiano Orofino, S.T.S. Sonningdale Tank Services srl (IT); Robert Tomkowiak, TGE Gas Engineering GmbH (DE)
- 13:50 **End of the conference**

Conference Language

The conference language will be English.

Registration & Information

www.tuvsud.com/akademie/congress-cryogenic



Conference Fee

€ 930,00 plus current VAT (if applicable)

The registration fee includes digital conference documentation, lunch and beverages during breaks as well as the evening event.

Conference Venue

TÜV SÜD

Westendstr. 199

80686 Munich, Germany

For further information please contact:

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In collaboration with

TÜV SÜD Industry Service GmbH