



American
Petroleum
Institute

Preliminary Program

2026 API Refrigerated Tank Conference & Expo

October 22, 2026 | Hyatt Regency | Austin, Texas | www.api.org/storagetank

Thursday, October 22, 2026

7:00 am – 8:00 am **Registration, Continental Breakfast, & Exhibit Viewing**

8:00 am – 8:05 am **Welcome: Opening Remarks and Safety Moment**

2025 Conference Co-Chairs:
Rama Challa, Advance Tank
Neville Stokes, Bechtel Energy

8:05 am – 8:30 am **Session 0A: Innovations in construction of LNG Storage Tanks in High Seismic Areas**

Moderator: Mark Howard

Full containment LNG tanks in Taiwan are among the largest and most complex cryogenic storage tanks due to the region's high seismic risk. This presentation reviews the double-roof full containment concept, its limited recognition outside Japan, and the solutions developed to meet local regulatory requirements and API 620, including insulation systems, transition knuckle plate design, relief valve scenarios, and constructability issues.

Speaker: Neville Stokes, Bechtel Energy

8:30 am – 9:00 am **SESSION 0B: Cryogenic Tanks- Innovation in Construction Liner**

Moderator: Mark Howard, Ounce of Prevention LLC

This presentation examines welded metallic liner options for the full containment tank outer concrete container wall. Design conditions experienced by those liners and issues specific to various liner configurations impacting the liner performance and vapor tightness are discussed. The liner requirements in the existing tank design and construction standards are examined. The conditions affecting the liner gas tightness during tank operation and changes required to improve the liner performance are discussed. Pros and Cons of various wall liner configurations will be presented.

Speaker: Alex Cooperman, CB&I

9:00 am – 9:20 am **Morning Refreshment Break & Exhibit Viewing**

9:20 am – 9:55 am **SESSION 1A: Seismic Design of Large LNG Storage Tanks- Are API Equations Enough**

Moderator: David Nadel, Consultant

Are traditional API 620 equations sufficient for modern LNG tank seismic design? This session explores the critical role of Fluid-Structure-Soil Interaction (FSSI) in full-containment tanks. Discover how advanced distributed impulsive mass modeling and pile-soil dynamics reshape our understanding of hydrodynamic pressures. We will contrast advanced finite element results against standard code equations, revealing crucial differences in inner tank shell stresses that can optimize safety and project economics.

Speaker: Jesus Rodriguez, Finite Element Analysis LTD

9:55 am – 10:30 am **SESSION 1B: Common Failure Mechanisms Refrigerated Tanks**

Moderator: Austin Pace, RAPT Engineering



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Despite advances in industry awareness and design standards, low pressure refrigerated storage tanks remain vulnerable to preventable failures, often resulting in severe safety, operational, and environmental consequences. This presentation examines key overpressure (excessive pressure and vacuum) risks, highlighting critical design considerations and engineering strategies to reduce system vulnerability and prevent upset events. Recent updates to API standards will also be reviewed, emphasizing their role in improving tank safety and reliability.

Speaker: David Redman, Kiewit Engineering Group

10:30 am – 10:50 am **Morning Refreshment Break & Exhibit Viewing**

10:50 am – 11:25 am **SESSION 2A: Life Extension and Reuse of LNG Storage- Thermo Cline Upgrades**

Moderator: Rama Challa, Advance Tank

Listen to an operating story at one of our plants that is de-inventorying an LNG tank. The tank has experienced an operational thermocline, a temperature gradient present across the vertical profile of the tank. We ran into some unexpected behavior and now live to tell the tale. Learn how we combated the effects. Operators can learn about thermoclines and how to expand their thinking around operations and potential business impacts.

Speaker: Jason Chan, National Grid

11:25 am – 12:00 pm **SESSION 2B: Life Extension and Reuse of LNG Storage- Gaging Systems Upgrades**

Moderator: Neville Stokes , Bechtel Energy

Many existing LNG and refrigerated hydrocarbon tanks have limited penetrations and older gauging arrangements. This session discusses practical modernization strategies for existing full containment tanks, including radar level measurement on light refrigerated products, improved overfill protection, limited-penetration upgrade options, redundancy considerations, stilling well requirements, and online temperature profiling for stratification monitoring. The focus is on revalidation, life extension, and improving operational awareness without unnecessary tank modification.

Speaker: Christoffer Hoffman, Emerson

12:00 pm – 12:40 pm **Lunch – Look for “Refrigerated Tank Conference” sign at tables to sit together**

12:40 pm – 1:10 pm **Exhibit Viewing**

1:10 pm – 1:30 pm **SESSION 3A: API 626 Update**

Moderator: Mike Brockway, Company Name Here

API 626 is a new American Petroleum Institute recommended practice for the inspection, evaluation, and integrity management of refrigerated and cryogenic storage tanks currently under development. Being developed to address the absence of a consistent industry framework, it focuses on aging assets, concealed degradation, and service-specific damage mechanisms not fully covered by conventional atmospheric tank inspection practices. This presentation provides an update on API 626's development, scope, schedule and anticipated application to LNG, ammonia, and other refrigerated storage systems.

Speaker: Andrew Yearwood, PEMY Consulting

1:30 pm – 1:55 pm **SESSION 3B: Inspecting Storage Tanks in Argentina- Regulatory Framework**

Moderator: Rafael Rengifo, Becht

In 2024, the Asset Management and Reliability Commission of the Argentine Institute of Oil and Gas established a technical subcommittee to address the absence of defined inspection and reauthorization requirements for API 620 refrigerated LPG storage tanks under Argentina's Resolution 404/94. Current practices often rely on auditor judgment and inspection methods adapted from ambient-temperature API 650 tanks, which may not adequately evaluate concealed degradation or critical tank areas. The subcommittee, comprising integrity specialists from YPF, MEGA, and TGS, is developing a technical regulation



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for submission to the National Secretariat of Energy. The proposed framework will align authorization and periodic reauthorization requirements with recognized international standards and risk-based integrity practices, improving regulatory consistency and protecting personnel, the environment, and facility reliability. This initiative is closely aligned with the objectives and ongoing development of API 626.

Speaker: Carlos Mendoza, YPF SA

1:55 pm – 2:15 pm

Afternoon Refreshment Break 1

2:15 pm – 2:50 pm

SESSION 4A: CFD Assessment of Tank Bottom Fill LNG Storage Tank

Moderator: Andrew Yearwood, PEMY Consulting

This presentation examines two-phase flow behavior in LNG bottom fill piping using CFD. The study shows how flashing vapor can restrict liquid flow through the downcomer, degrade vapor-liquid disengagement, and increase splashing toward the suspended deck. The results highlight the importance of properly sizing the annular liquid flow area, vent geometry, and splash protection details. The presentation also illustrates how CFD pressure histories can support structural loading evaluation and vibration screening of the bottom fill assembly.

Speaker: Vivek Manjrekar, Bechtel Energy

2:50 pm – 3:25 pm

SESSION 4B: Potential for 2 phase Flow in Refrigerated Tanks

Moderator: Joe Zalac, Matrix PDM

Provides simple and very useful charts for maximum allowable fill level as a function of wall heat flux for LNG, Ammonia, CO₂, hydrogen (LH₂), and other fluids.

Speaker: Georges A. Melhem, ioMosaic US

3:25 pm – 3:45 pm

Afternoon Refreshment Break 2

3:45 pm – 4:15 pm

SESSION 5A: Product Distribution on Bottom of an LNG Tank

Moderator: Neville Stokes, Bechtel Energy

LNG delivered to a storage tank may vary in composition based on feed pipeline composition and specific liquefaction equipment used in its production. Additionally, stored LNG will change over time as heat ingress into the tank causes a biased evaporation of the more volatile components. Risks for clients include non-compliant heating values, risk for stratification in the LNG tank, and structural risk based on thermal and hydrostatic loads on the shell. This presentation presents a case study and a methodology to evaluate the composition and identify impacts.

Speaker: Joe Zalac, Matrix PDM

4:15 pm – 4:45 pm

SESSION 5B: Advanced Insulative Coatings as a Primary Emissions and Vapor Management Strategy for Refrigerated Storage Tanks

Moderator: TBD

This presentation explores advanced insulative coatings as a primary emissions and vapor management strategy for refrigerated storage tanks. By differentiating between solar and process heat, engineers can accurately specify fit-for-purpose coatings that significantly reduce boil-off and product loss. Additionally, the session highlights critical secondary benefits, including the mitigation of Corrosion Under Insulation (CUI) and improved personnel protection, utilizing recent AMPP coating standards and real-world oil and gas industry case studies.

Speaker: Arin Shamordain



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4:45 pm – 5:00 pm

Closing Remarks

Speaker: Rema Challa, Advance Tank
Neville Stokes, Bechtel Energy

5:00 pm – 6:00 pm

Closing Reception