

2019 API Storage Tank Conference & Expo

October 16-17, 2019 | Westin Denver Downtown | Denver, Colorado | www.api.org/storagetank

**as of October 4, 2019 | Agenda subject to change*

Wednesday, October 16, 2019

7:30am – 8:30am

Registration, Continental Breakfast and Exhibit Viewing

8:30am – 8:50am

Welcome: Opening Remarks

2019 Conference Co-Chairs: Earl Crochet, Director of Engineering, Kinder Morgan, Dave Cushman, General Manager, West Virginia Paint, LLC

8:50am – 9:30am

Keynote Session – “Lessons learned from the maiden voyage of the RMS Titanic”

Moderator: Morris Kline, Caldwell Tanks

On April 15, 1912, the Royal Mail Ship (RMS) Titanic sank four days into her maiden voyage from England to the United States. At the time, the Titanic was the largest ship in the world and was considered the safest vessel afloat. When she sank, over 1500 people lost their lives, which was one of the deadliest peacetime marine disasters in history.

This event, when reviewed through the eyes of the “Bow Tie” Risk Assessment Method has many learnings for the managers of petrochemical terminals and storage tanks.

Speaker: Edward Hawthorne, Consultant

9:30am – 9:50am

Morning Refreshment Break 1 and Exhibit Viewing

9:50am – 10:30am

Session 1 Title: A Better Mousetrap? A Potential New Application and Innovation to Prevent Overfills

Moderator: Marilyn Shores, Shores Consulting

We have been investigating applying some existing technology in an innovated way to help prevent tank overfills. This presentation will focus on the technology and some real world testing we have performed at Kinder Morgan.

Speaker: Earl Crochet, Kinder Morgan

10:30am – 10:50am

Morning Refreshment Break 2 and Exhibit Viewing

10:50am – 12:00pm

Session 2A Title: Fitness for Service Assessment of AST Post-Fire Incident

Moderator: Rama Challa, Matrix Service Company

This presentation conveys an approach and a methodology for performing fitness for service for continued operation of storage tanks when they have been subjected to a fire incident. The presentation would provide steps that need to be considered as part of the fitness for service evaluation. The presentation provides methods to evaluate the extent of damage. The approach generally considers the API 579 guidelines for assessment of Fire Damage and provide recommendations for post event repairs to put the tank back in service.

Speaker: Golnaz Bassiri, Matrix PDM Engineering

Session 2B Title: Tank Design with Fire in Mind

Moderator: Mark Howard, US EPA

Presentation will provide considerations for design of storage tanks to maintain safe operation. Will concentrate on components and systems design related to fire prevention, suppression

and considerations to ensure tank integrity.

Speaker: Art Szaradzinski, Bechtel

12:00pm – 12:50pm

Lunch – Sponsored by R.B. Mosher Co.

12:50 – 1:10pm

Exhibit Viewing

1:10pm – 1:55pm

Session 3 Title: Storage Tank Financial Responsibility: How do I Comply?

Moderator: Dan Fleck, Kinder Morgan

This session will cover the options of how owners and operators can demonstrate financial responsibility. What are the most commonly used financial assurance mechanisms and what are the required coverage amounts. Discussion of additional compliance mechanisms available to local governments.

Speaker: David Lau, Allied World Insurance Company

1:55pm – 2:10pm

Afternoon Refreshment Break 1 and Exhibit Viewing

2:10pm – 3:20pm

Session 4A Title: Revising the Design of API 650 Wind Loading Provisions

Moderator: Larry Foster, Marathon Petroleum Company

Designing for storm level wind is complex and tricky, not to mention the constantly changing requirements of ASCE 7. In this talk we shown now only how to compute wind loading on tanks, but what these results mean for the next edition of API 650. This talk will be of interest to designers, engineers, and owners who want to understand how to build tanks to withstand storm winds.

Speaker: Phil Myers, PEMY Consulting, LLC

Session 4B Title: Stainless Steel Tanks and Tank Bottoms Providing Both Cost and Corrosion Control

Moderator: Wayne Geyer, STI/SPFA

Stainless steel grades which are suitable for tank bottoms that can be used to reduce corrosion effects for both soil corrosion and stored chemicals will be presented. Fabrication considerations especially those for the dissimilar metal joint will be discussed. Cost/benefit estimates to show that these stainless solutions (using API 650 design requirements) are not 'out of line' compared with conventional tanks with double bottoms, liners and the extra things required for the traditional approach.

Speaker: John Grocki, Advantage Resources Consulting

3:20pm – 3:35pm

Afternoon Refreshment Break 2 and Exhibit Viewing

3:35pm – 5:00pm

Session 5A Title: SSPC-SP1 Disconnect Between Standard and Results

Moderator: Dennis Spicer, Energy Transfer

What is the cause for a rising number of premature lining failures? Could it be that the non-compliance of the SSPC-SP1 Solvent Cleaning standard is a large contributing factor? Bob Pate thinks so and will discuss his findings behind the issue.

Speaker: Bob Pate, Denso North America

Session 5B Title: How API 652 Guidance has Continuing Relevance in a Changing Market

Moderator: Jose Godoy, American Petroleum Institute

API 652 (Lining of Aboveground Petroleum Storage Tank Bottoms) continues to be relevant in the selection of high performance linings. This presentation is intended to review the history of these protective linings, identifying how some of these have offered long service life - we will then show how these attributes can be built into the next generation of linings ensuring continued performance as demands change.

Speaker: Michael Harrison, Sherwin Williams

Session 5C Title: Trending Toward Thicker Linings – Is it a Good Trend?

Moderator: Mike Brockway, TCI Services, LLC

The protective coating technology has been trending toward thicker linings with unintended consequences for owner operators of petroleum storage tanks. This 30 minute presentation will review some of the challenges that owner operators are facing with their API 653 out of service inspections, both from a technical perspective and certainly from an increased and unanticipated cost perspective.

Speaker: David Cushman, West Virginia Paint, LLC

5:00pm – 6:00pm

Opening Reception and Exhibit Viewing – *Sponsored by Amerapex Corporation*

Thursday, October 17, 2019

8:00am – 8:30am

Registration, Continental Breakfast and Exhibit Viewing

8:30am – 8:45am

Welcome: Opening Remarks

8:45am – 9:30am

Keynote Session – Culture and Process Safety

Moderator: Earl Crochet, Kinder Morgan

The impact of safety culture, including concepts such as normalization of deviance will be examined using past investigation data. Suggestions on moving forward will be discussed, aimed at the Agency's mission of chemical industry safety improvement.

Speaker: Manny Ehrlich, US Chemical Safety Board

9:30am – 9:50am

Morning Refreshment Break 1 and Exhibit Viewing

9:50am – 10:30am

Session 1 Title: Tank Bottoms Resuspension Model

Moderator: Andrew Yearwood, PEMY Consulting

Tank bottoms accumulate in tanks over many years of service. The bottoms can range from 1–2 ft to over 12 ft. These bottoms impact operational safety, as well as reduce the tank capacity. The best method of bottoms management and removal is through mixing.

Computational Fluid Dynamics is used to gather data on mixing performance in resuspending tank bottoms and verified against results in the field to gain confidence in the model.

Speaker: Shaun Leo, Enbridge Pipelines

10:30am – 10:50am

Morning Refreshment Break 2 and Exhibit Viewing

10:50am – 12:00pm

Session 2A Title: How an Innovative Management System can be a Catalyst for Success in a Prescriptive Regulatory Environment

Moderator: George Morovich, Tank and Environmental Technologies, Inc.

Sustainability in the oil and gas industry requires lean, innovative and transparent operations. Leaders in industry are seeking a solution that merges compliance and maintenance in a system that:

- *Verifies and standardizes the process*
- *Is easy to use, meeting compliance by design*
- *Leverages data to advance operations*

This short presentation compares two tank owners. See how they are positioning operations to face challenges and seize opportunities in an increasingly digital environment.

Speaker: Beth Brueckner, G.K. Hills Consulting

Session 2B Title: How Far Do We Have to Go to Determine What Regulations and Standards Apply to my Aboveground Tanks?

Moderator: Mark Howard, US EPA

What regulations and standards apply to your aboveground storage tanks? Where do you go to find out? How do you determine their applicability and how do you satisfy local codes and standards? In this presentation, we will provide an outline to follow to assist you making sure that you have at least thought of everything.

Speaker: Joyce Rizzo, JD2 Environmental

Session 2C Title: A Dynamic Look at Design of Upstream Storage Tanks

Moderator: Ron Santelik, Howard Energy Partners

There has been a recent focus on proper design of upstream storage tank control systems by EPA and state air quality regulators. Typical design practices for vapor control systems for these types of tanks may result in under-design. This presentation will go over the tools and best practices to properly design and size these types of systems.

Speaker: Kenny Malmquist, SLR International Corporation

12:00pm – 12:50pm

Lunch – Sponsored by HMT

12:50pm – 1:10pm

Exhibit Viewing

1:10pm – 2:20pm

Session 3A Title: The Importance of Developing a Plan for Inspection of All Your Storage Tanks

Moderator: Nelson Acosta, HMT Inspection

Companies need to develop an inspection schedule for their own unique storage tanks, and not just tanks with regulated substances. Possible factors: tank size & throughput; characteristics of the material being stored; tank age, materials of construction; storage & maintenance history; criticality (e.g., what if the worst case occurs and the tank can't be used any more, with possible damage to adjacent tanks & equipment?). Case studies will be used to illustrate what can happen.

Speakers: Richard Rosera and Stuart Vawter, EHS GRADES International

Session 3B Title: The Five Pillars: Essential Elements for Successfully Managing Your Tank Turnaround Program

Moderator: Peter Williams, Concord Tank Corporation

A successful tank turnaround management program requires a formalized, repeatable, reliable, consistent, and sustainable process to meet or exceed schedule, cost, and quality goals. Those involved in the planning, execution, or management of tank turnaround programs will discover how the application of proper project management principles, consistent process implementation, and the commitment to developing 'best-in-class' turnaround team behaviors, ensures solid, and continuously improving, program performance.

	Speaker: Patrick Stanton, RLG International
2:20pm – 2:40pm	Afternoon Refreshment Break and Exhibit Viewing
2:40pm – 3:20pm	Session 4A Title: The Hype About Millennials: Strategies for assessing the incoming workforce <i>Millennials have steadily entered the workforce and continue to grow. They currently makeup 50% of the entire workforce and expected to grow to 75% by 2025. Companies face developing strategic policies for attracting up and comers and Supervisors are challenged with finding ways to understand and meet the needs of retaining Millennials who don't seem to settle as other generations have. There is a stigma that Millennials are entitled, but do they really ask for anything different from what any other generation wants? How does this affect hiring/retention practices? We will look at what motivates them to get and retain credentials. Discuss how testing, and training/techniques should change to accommodate the more "modern learner." Last, discuss key concepts employers can use to deal with this growing workforce, and possibly the next generation.</i> Speaker: Andri Orphanides, American Petroleum Institute
	Session 4B Title: Tank Standards Update Moderator: Mark Jordan, McDermott <i>This session will give an overview of the revision efforts underway for the API family of aboveground storage tank (AST) standards, including their scopes. It will introduce a few of the important revisions on the horizon.</i> Speaker: Jose Godoy, American Petroleum Institute
3:20pm – 3:35pm	Afternoon Refreshment Break 2
3:35pm – 4:50pm	Session 5A Title: Update on Content and Completion of New NACE Standard for External Corrosion Control of AST Bottoms Moderator: Amy Baxter, Enbridge Energy Company <i>In February 2016 NACE approved the development of a new comprehensive AST Standard entitled "Standard for External Corrosion Control of On-Grade Carbon Steel Storage Tank Bottoms". Task Group (TG) 543 was created to write the Standard and enlisted the assistance of an international collection of AST corrosion control professionals. The Vice Chairman of TG 543 will present an overview of this comprehensive Standard and its content, along with a progress update plus corresponding timeline targets for completion.</i> Speaker: Tim Whited, MESA
	Session 5B Title: Finite Element Analysis Success and Pitfalls in Tank Applications Moderator: Matt VanAlsbury, Advance Tank and Construction <i>Finite Element Analysis (FEA) is one of the most useful and misused engineering tools of the modern era. This presentation will focus exclusively on the challenges and pitfalls when using FEA to solve tank problems and how to use it successfully. The presentation will present case studies on key topics covering common tank FEA problems including tank settlement, nozzle loads, hydrotest exemptions, wind buckling, and painter hitch loadings.</i> Speaker: Andrew Yearwood, PEMY Consulting
5:00pm – 6:00pm	Closing Reception – <i>Sponsored by Matrix PDM Engineering</i>