

2021 Annual Membership Offerings

Date	Event Title	Presenter(s)	Description (Summary of Session)
Jan. 21st, 2021 10:00 - 11:30am (MST)	Industry Leader Presentation: "Advancements in Data Solutions for the Asset Integrity Industry"	Mr. Dennis Bertolotti, MISTRAS Group President and Chief Executive Officer (CEO)	As the global technology landscape continues to move at breakneck speeds, advancements in non-destructive testing (NDT) over the last 10 years have made data acquisition technologies faster and more effective than ever. The next step for the industry to take is developing more advanced data analysis and management solutions to enhance the value operators derive from the huge amounts of data at their disposal. Advancements in these types of data solutions are paving the way for operators to: <ul style="list-style-type: none"> • Digitize data reporting processes • Develop and refine predictive risk algorithms • Visualize comprehensive asset integrity conditions by integrating data from multiple inputs • Utilize refined predictive data in a proactive Asset Integrity Program • Generate true economic value from asset protection data and processes
Feb. 18th, 2021 10:00 - 12:00 (MST)	Special Session: Pressure Equipment Safety Authority - Regulatory Session	<ul style="list-style-type: none"> • Mr. Chris Selinger, TSASK VP Operations & Chief Inspector • Mr. Ken Paulson, BC Oil & Gas Commission Executive Vice President and COO • Mr. Mike Poehlmann, ABSA General Manager Chief Inspector and Administrator, Organization Technical Administration 	The Delegated Regulatory Authority Bodies in Alberta (ABSA), British Columbia (BCOGC), and Saskatchewan (TSask) to provide members with annual update, new initiatives, and how they see Covid has affected industry from the Regulatory perspective.
March 18th, 2021 10:00-12:00pm (MST) March 18th, 2021 10:00-12:00pm (MST) March 18th, 2021 10:00-12:00pm (MST)	Keynote Presentation: "Navigating Through Challenging Times" Technical Presentation: "How the Forensics of Non-Metallic Materials are Different from Those of Metals" Technical Presentation: Lessons Learned from Turnarounds	Mr. Hennie Prinlsoo (need title) Ms. Ana Benz, IRISNDT Chief Engineer Mr. Frank Engli, Senior Maintenance and Turnaround Advisor, Becht	more details to follow Failures of non-metallic parts and their consequences can be as significant as those of metallic equipment. Failures described in this presentation introduce some characteristics of non-metallic parts that impact the equipment we use at industrial sites. The presentation covers some aged O-rings, lined pipe, and pipelines with liners. Characteristics such as permeation, glass temperature, and viscoelasticity are discussed along with examples of the consequences of these attributes. Over four decades of planning, assuring, and executing turnarounds in the refinery and petrochemical industry in Canada and US and South America have resulted in an accumulation of experiences and battle scars that can be summarized into a number of key lessons learned. In this presentation , we will discuss the changes in our industry and how it has impact turnarounds and how an integrated and team approach has move these key events forward and are now critical to the success and profitability of the sites.

<p>April 1, 2021 10:00-11:30am (MST)</p>	<p>EXCLUSIVE: Industry Owner Executive Panel Discussion</p>	<ul style="list-style-type: none"> • Ms. Pamela McIntyre, Canadian Natural Resources, Senior VP: Safety Risk Mgmt & Innovation • Ms. Michelle Colleton, PETRONAS CANADA, Head of Health, Safety, Security and Environment • Mr. Gary Woods, TransAlta, Managing Director, Gas and Renewables 	<p>more details to follow</p>
<p>May 13, 2021 10:00-11:30am (MST)</p> <p>May 13, 2021 10:00-11:30am (MST)</p>	<p>Technical Session: "Optimized Heat Treatment to Prevent Brittle Fracture"</p> <p>Technical Presentation: "Recent Changes to AB-525: Overpressure Protection Requirements in Alberta"</p>	<p>Mr. Shane Turcott, Metallurgical Engineer, Steel Imageae</p> <p>Mr. Greg Brandon, Technical Advisor, ABSA</p>	<p>Concerns of steel cold temperature brittle fracture continue to haunt the petroleum industry. After years studying the affects of heat treatment, optimized normalization heat treatment was found to drastically improve low carbon steels' cold temperature toughness. This talk summarizes several of the key heat treatment parameters affecting (and improving) the cold temperature toughness of steel. It will dispel several myths embedded in industry today, discuss variables previously missed and provide a path forward to modernizing the heat treatment industry.</p> <p>ABSA's recent publication of the second edition of AB-525: Overpressure Protection Requirements introduced a significant new structure and clarity to the document, but most major concepts remain unchanged from the original 2013 publication. The rewriting of the second edition was initiated in early 2018 when the Alberta industry groups and several other stakeholders were invited to provide feedback and participate in meetings to discuss potential changes to the document. The document was then reorganized and rewritten in its entirety, and although at first glance, the new document is significantly different than the original, most of the important concepts remain unchanged.</p> <p>The presentation will begin with a brief discussion of the initial workgroup proceedings and the process used for improving this document, followed by a walk-through of the structure of the new document. Some of the major concepts that have been further developed in the new edition will be discussed, most notably the inclusion of a new section dedicated to establishing requirements for overpressure risk assessments.</p>
<p>June 17, 2021 10:00 - 12:00am (MST)</p>	<p>Special Session: Integrity Challenges Forum - Time for an Update!</p> <ul style="list-style-type: none"> • Inspector Log Book • Regulatory Streamlining Processes • AB-521 	<p>Mr. Nick Marx - IPEIA Task Force #1 – Leader Mr. Izak Roux – IPEIA Task Force #2 - Leader Mr. Jason Caron - IPEIA ICF- AB-521 - Leader</p>	<p>Task Forces TF-1 and TF-2 to present reports on findings from 2021 committee initiatives and work on new initiatives for 2021.</p>

<p>July 15, 2021 10:00-11:30am (MST)</p>	<p>Technical Presentation: "Wireless UT Sensors for Structural Health Monitoring & Remote Operations in a Post COVID19 World"</p>	<p>Mr. Steve Strachan, VP of Sales, Sensor Networks, Inc.</p>	<p>"The boss said we need to change our thinking, and no better time to do it than in a crisis." These were the first words spoken during one of our recurring monthly calls with one of our customer partners. "CAPEX budgets are being slashed, but innovation budgets are swelling ... we are being asked to find ways to technologize our way out of this so we can not only get through today but be better in the future." As weeks went by (as the COVID19 fallout became worse), these conversations became a less of an incident and more of a trend during our status calls with more and more of our customer partners.</p> <p>The concept for deployment of permanently or temporarily installed ultrasonic sensors to either replace or augment manual inspections is by no means a newfangled idea. The first versions of installed sensors were hard wired and introduced over 20 years ago and extremely niche as they were expensive and quite limited in capability. As with all technology, components get smaller, have more computing power, can be more easily deployed/integrated, and ultimately become more affordable. The same can be said about installed UT sensors. Over the last ten years especially, the installed sensor concept has seen vast technological advancements.</p> <p>While duplex stainless steels are known as problem-solving alloys, they are not as simple to specify as compared to standard austenitic stainless alloys. The presenter has worked internationally with duplex alloys for 45 years, and seen designers, fabricators and end users make costly mistakes which could be easily avoided. The 5 most common ones will be presented and of course what should be done to prevent them from occurring on your jobs. Specifically, he will discuss inadequate material specification, inadequate guidance on hot and cold forming, inadequate weld specifications, inadequate post-fabrication treatment and finally mistakes in estimating costs and delivery times. In order for the successful use of duplex stainless steels, more specifications must be done up front - they can be done by an engineering firm, the fabricator and/or the end user.</p>
<p>July 15, 2021 10:00-11:30am (MST)</p>	<p>Technical Presentation: "The Five Most Common Mistakes When Working with Duplex Stainless Steels"</p>	<p>Mr. Gary Coates, Technical Manager, The Nickel Institute</p>	

<p>August 19, 2021 10:00-11:30am (MST)</p>	<p>Technical Presentation: "Is it time for a RBI Lite? Find a way to implement a lite RBI systems and keep it simple"</p>	<p>Mr. Izak Roux, Snr. Engineer, Roux Engineering</p>	<p>The first step in a pressure vessel inspection program is a time-based inspection program, following guidelines from the jurisdiction or API 510. This limits the owner to a fixed inspection interval that do not take the actual damage mechanism, operating conditions and corrosion rate in consideration. As soon as the owner/operator want to take credit for low corrosion rates or very little damage observed during inspections an RBI program is the next step. However, an RBI program in accordance with API 580 or ASME PCC3 follows a systems approach and is an extensive program to implement. Most of the time an RBI program is suitable for refineries and chemical plants with extensive historical data and it requires extensive corrosion systems analysis. RBI is not easy to implement on smaller and newer plants with less pressure equipment data/history available. This presentation will propose an alternative approach more suitable for smaller plants with less equipment data available. The proposed approach will consider individual vessels, to access the risk level and consequence of failure for the vessel in the present operating environment, considering similar vessels in operation at the same plant or other plants operated by the owner and determine a damage rate and confidence in detection of potential damage during inspection. This approach is less data intensive and focus on individual pressure equipment rather than on systems.</p> <p>The more information that is available about an asset 's mechanical integrity when planning for a TAR, the more effective the work scope will be when it's time for the turnaround. Much can be learned about an assets overall condition prior to the turnaround by utilizing various on-stream NDT techniques. One technique, acoustic emission (AE), provides several advantages over other on-stream methods. For example, AE testing provides a means of monitoring the complete structure, "global surveillance", during a single test. It is a highly sensitive technique capable of detecting defects at an early stage of development. For insulated equipment, there is a minimum disturbance of insulation. In API Recommend Practice 581 it is rated as a Usually Effective Technique under the Non-Intrusive Inspection for several of the cracking issues in pressure vessels. This makes it a method of choice for evaluating assets for defects such as in-service crack development/growth.</p>
<p>August 19, 2021 10:00-11:30am (MST)</p>	<p>Technical Presentation: "Acoustic Emission: A Tool for Pre-Turnaround Screening and Planning"</p>	<p>Mr. Sam Ternowchek, Vice President, Acoustic Emission Business Development, Mistras Group</p>	<p>This presentation will present examples of how the use of AE as a pre-turnaround, on stream, testing technique can aid in the work scope planning for pressurized equipment, e.g. crack detection in storage bullets and spheres; cracking in pressure vessels; integrity of refrigerated ammonia storage tank; through valve leakage in valves; active corrosion detection in atmospheric storage tanks. It will also include a means of relating the AE data to the integrity of the asset.</p>

<p>Sept 23rd, 2021 10:00-12:00pm (MST)</p>	<p>Special Sessions: Welcome to EPRI Mini Symposium</p>	<p>Doug Ferber & Stan Rosinski</p>	<p>EPRI Mini Symposium</p> <ul style="list-style-type: none"> • Session A: Power Plant Piping – EPRI Program Research • Session B: Fitness for Service for Critical Components in the Energy Industry • Session C: Creep Strength Enhanced Ferritic Steel (CSEF): EPRI R&D on Grade 91 and 92 • Session D: New Technologies for Boiler Life Management
<p>Oct. 21st, 2021 10:00-11:30am (MST)</p>	<p>Technical Presentation: "The Case of the "Technical Competency Programs"</p>	<p>Mr. Rick Marsden, Senior Staff Engineer, Senior Staff, Technical Talent Development, Cenovus</p>	<p>“Competency” is a concept that appears in practically every standard applicable in the Oil&Gas industry including those associated with ASME, CSA, API, government Acts and Regulations, and OHS. Often, a concise definition of competency is included. For example, “qualified, trained, and experienced to perform the required duties to a certain standard”. Such definitions provide guidance on the concept. However, organizations must still define their own unique competency requirements within some sort of management system. Such a system must be able to adapt to many factors including changes in business, operational needs and even global events. The process is deceptively complex, requiring meticulous engagement of many stakeholders and consideration of many factors. Finding the best solution is akin to solving a complex puzzle or mystery. The “game is afoot” as an organization begins to unravel the many layers and considerations necessary to build an effective system.</p> <p>This presentation summarizes the unique approach taken by Cenovus Energy to evolve existing technical competency programs over a two-year period. Fundamental to this approach was the establishment of a technical team of surface and sub-surface professionals within Human Resources. This approach enabled a rigorous assessment of the effectiveness of current programs to be completed and the elementary learnings integrated into updated programs within the internal technical community. The overall process proved much more complex than first anticipated which required further innovation of the strategies employed.</p>
<p>October 21st, 2021 10:00-11:30am (MST)</p>	<p>Technical Presentation: "How to Get the Best Out of Composite Repairs"</p>	<p>Dr. Paul Hill, Global Business Manager, Composite Repair, TEAM Industrial Services Inc.</p>	<p>Composite repairs are seeing increasing applications across the refining and chemical sectors but there is still an element of uncertainty amongst some about how they will perform. Efforts to standardise design methods have been underway since 1999 and guidance was first published by ASME in 2005 and ISO in 2006. There is now extensive experience with using the repairs across the industry and this presentation will cover the key lessons learnt during this period that can ensure repairs perform in a predictable and reliable manner. The topics covered will include design assumptions, the importance of correct curing of the repairs and installation.</p>