

# EVOLUTION

+ 100 technical sessions, new tracks, diverse industry panels and exhibitors

REGISTER NOW

The entire world is on an extraordinary journey of sustainability. Amidst innovations, challenges, and forward-looking strategies resides the linchpin of the energy evolution – the Oil & Gas industry.

Every day, this industry delivers essential energy across continents, through millions of miles of infrastructure and vehicles, spanning diverse landscapes and climate zones. Not only do these networks deliver safe, reliable energy, they are supported by thousands of workers leading transformative efforts in new technologies, emergent energy sources, workforce development, and safety.

Join us, as industry stakeholders travel to Nashville, Tennessee in May 1-3, 2023 to connect, collaborate, learn, and continue leading the energy evolution.

## Leading the Energy Evolution.

### Join us in Nashville.







### Click Schedule At A Glance

30 **APRIL 2023** 

01 **MAY 2023** 

02 **MAY 2023** 

03 **MAY 2023** 

Sunday, April 30

PIPELINE CONFERENCE & EXPO

Monday, May 1

Tuesday, May 2

Wednesday, May 3

Registration: 3:00 pm - 6:00 pm **Griffin Pre Function** 

Registration: 6:30 am - 5:00 pm Griffin Pre Function

Registration: 7:00 am - 5:00 pm Griffin Pre Function

Registration: 7:00 am - 12:00 pm **Griffin Pre Function** 

**DEI&A** and

Appreciation Reception (invite only): 5:00 pm - 6:30 pm Belle Meade 1 & 2

Exhibit Hall Hours: 00 am - 6:30 pm iffin EFGH

**Exhibit Hall Hours:** 7:00 am - 3:00 pm Griffin EFGH

Technical Tracks: 8:00 am - 10:15 am 10:30 am - 12:00 pm

Opening Keynote & Awards: 8:00 am - 10:00 am

Opening Keynote & **Griffin ABCD** 

DEI&A Panel: 8:00 am - 9:45 am Griffin ABCD

Technical Tracks: 10:30 am - 12:10 pm 1:30 pm - 5:10 pm

Technical Tracks: 10:00 am - 12:15 pm 2:30 pm - 5:15 pm

Welcome Reception: 5:15 pm - 6:30 pm (Exhibit Hall) Griffin EFGH

The State of Security Panel: 1:30 pm - 2:30 pm **Griffin ABCD** 

Networking Reception: 5:30 pm - 7:00 pm Griffin ABCD

PIPELINE CONFERENCE & EXPO PROGRAM

### Explore the Pipeline Tracks



#### Stakeholder Engagement & Outreach

This track fosters information sharing and engagement around community involvement and multi stakeholder dialogue efforts and tools for continued advancement in safe pipeline operations. Example topics may include leading practices for engagement with communities throughout the lifecycle of a pipeline(s), API Recommended Practices (RP) 1162, Public Awareness Programs for Pipeline Operators and RP 1185, Pipeline Public Engagement, environmental justice and Tribal/First Nation considerations, emergency responder education, and damage prevention outreach.



#### **Operational Excellence**

This track explores how oil and gas leaders are operating their assets safely, reliably, sustainably and cost effectively from safety performance to best-in-class standards and systems. Examples topics may include processes for identifying high consequence areas, in line inspection lessons learned, pipeline safety management systems, safety culture, Management of Change, leak detection analysis and remediation for risk reduction and enterprise & operational risk management.



#### Environmental, Social & Governance

This track provides industry insights on both current and forward-looking strategies, changes, and approaches to environmental responsibility and broader ESG measures. Examples topics may include habitat management and conservation programs, ESG risks, system hardening and resiliency, carbon capture utilization and storage, methane emission quantification and other sustainable practices by operators.



#### Technology & Innovation

This track highlights operational technologies, tools and other innovations that allow oil and gas organizations to advance their operations, asset integrity, risk management, and business continuity and growth. Example topics may include new inspection tools and engineering practices, leak detection technologies, emergency responder applications and emerging fuel developments.



#### Workforce Development

This track offers insight into diverse workforce development strategies in the pipeline industry. Example topics include succession planning to support knowledge transfer, attracting new workers to the industry, talent retention strategies, managing a multigenerational workforce, Operator Qualification (OQ) and inspector certification programs, establishing competency based learning programs, using technology to train, and expanding formal training to include knowledge-based workers.

### Look! Control Room Tracks

#### **Team Training**

This track focuses on establishing and maintaining compliance, while fostering collaboration on one of the newest aspects of Control Room Management regulations. Example topics may include regulation history, interpreting regulatory requirements, incorporating team training into both normal and abnormal operations, and non-technical soft skill training approaches.

#### **Emerging Tech & the Future Workforce**

This track explores the future of control room operations, sharing insights on technologies, implementation strategies, use cases and best practices, and talent recruitment and acquisition approaches. Example topics may include automation/autonomous operations, workforce transition, workforce training and skill development, shiftwork transformation, and recruiting techniques.

#### Alarm Management

This is track discusses the lifecycle of alarms, from identification to alarm monitoring, and management of change with topics concentrated in challenges related to implementation of an alarm philosophy and fulfillment of regulations requiring an alarm management plan. Example topics may include smart alarms, alarm dashboarding and analysis, impacts by Title 49 rupture response procedures, and alarm workload management.

#### Manual Pipeline Operation & Business Continuity

This track highlights response measures and strategies when faced with frequent natural disasters, challenging infrastructure, or staffing limitations while maintaining operations. Example topics may include preparedness and response to social unrest or pandemics, manual operations due to system operations, controller and staffing continuity strategies, and procedure development insights.

#### **Compliance Best Practices & Audits**

This track takes a deep look into control room compliance and effectiveness through the lens of regulatory audits, inspections, investigations and self assessments. Example topics may include: lessons learned from inspection findings, inspection preparation successfully demonstrating compliance, differences between regulator inspections and investigations, and the value of self assessments.



### View the Cybernetics Tracks



#### Cybersecurity

This track explores topics related to the hardening of critical control systems amongst a backdrop of an everchanging cybersecurity landscape where prudent pipeline operators must continually strive to stay ahead of evolving cyber threats and regulations. Example topics may include strategies for responding to TSA Security Directives, contingency planning, redundancy strategies, cybersecurity approaches to legacy systems, and cybersecurity designs.

#### Leak Detection Advancements

This track examines the roles that different leak detection advancements play in ensuring the pipeline industry exceeds the expectations of the public, businesses and communities. Example topics may include new leak detection technologies, implementation and response to the Rupture Rule, leak detection maintenance and optimization of existing systems, and applications of novel leak detection technology to operations.

#### **SCADA** Improvements

This track provides information about key industry improvements to SCADA systems from the processes to technologies. Example topics may include the modernization of SCADA communications, implementations of Human Machine Interfaces, automation of complex operations, and remote access and support tools or practices.

#### **Standards Updates**

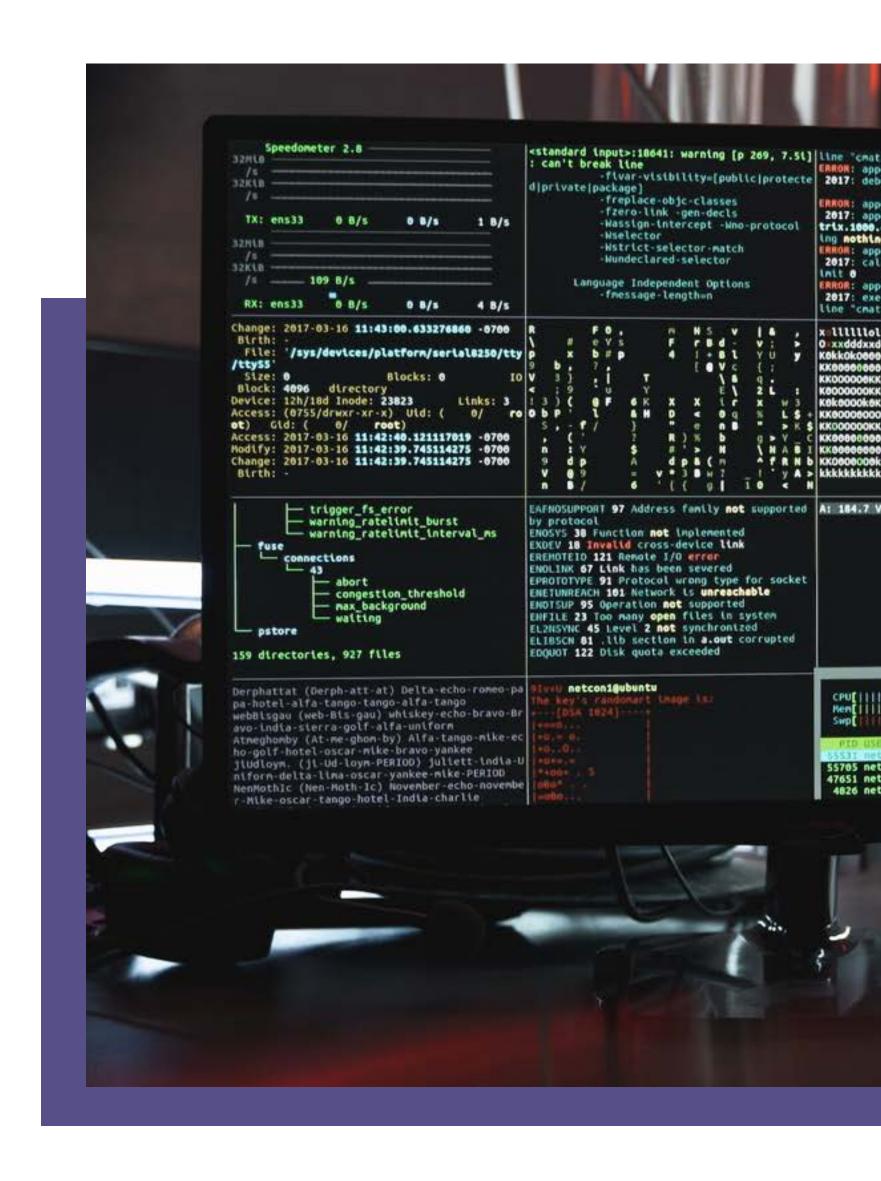
This track provides updates on industry standards, and recommended practices that support the evolution of current industry practices. Example topics may include new standard applications, practice interpretations and industry standards or practices under review.

#### **Emerging Technologies**

This track highlights forward looking technological advancements that will change operational intelligence. Example topics may include drones, energy optimization methods, remote sensing technology and satellite based platforms, virtual and augmented reality, carbon dioxide pipeline monitoring and control innovations.

#### Workforce Development

This track promotes the sharing of practices or strategies that support the development and preparation of the diverse workforce aimed at strengthening the industry skills of the current and future workforce. Example topics may include control room remote workforce strategies, knowledge retention and accessibility approaches, and internal qualification evaluation practices.





### See you soon.

Attendee Duty of Care: API recognizes the safety of all of those in-person at the 2023 API Pipeline Conference and Expo as a top priority. API is committed to following CDC, local government agencies, and the JW Marriott Nashville Covid-19 health and safety guidelines for hosting in-person events. By attending the 2023 API Pipeline Conference and Expo in Nashville, Tennessee, you agree to comply with all Covid-19 health and safety guidelines adopted by API, that have been recommended by the CDC, local government agencies and the JW Marriott Nashville. Your acceptance of the Attendee Duty of Care is a condition of registration and participation in the 2023 API Pipeline Conference and Expo.

Control Room | Alarm Management



### Technical Session Listing

Technical Session Track

Dissecting Alarm Management Definitions Control Room | Alarm Management

Simplifying Effective Control Room Alarm Management

Control Room | Alarm Management

Alarm Segregation and Rationalization Strategies Deployed for Control Room Control Room | Alarm Management Effectiveness

How Technology and the New Innovated Control Room will Change our Future

Roundtable on Control Room | Compliance Best Practices & Audits

Trends in Controller Workload Over the Years

Control Room | Compliance Best Practices & Audits

Ensuring CRM Plan Compliance and Effectiveness Control Room | Compliance Best Practices & Audits

Effective Scheduling to Maintain Operations

Control Room | Compliance Best Practices & Audits

Improving Display Development in ICS through a Formal Display Life Cycle

Control Room | Compliance Best Practices & Audits

Control Room Management Audit Preparation and Effectiveness Control Room | Compliance Best Practices & Audits

Reducing cost of point to point checkouts

Control Room | Compliance Best Practices & Audits

CRM Program – Internal Effectiveness Evaluations

Control Room | Compliance Best Practices & Audits

CRM Program – Internal Effectiveness Evaluations

Control Room | Compliance Best Practices & Audits

Transform Your Control Room into the future with RIPA Technology

Control Room | Emerging Tech & the Future Workforce

Transpetro's new concept of a logistics integrated Control Center Control Room | Emerging Tech & the Future Workforce

CRM as the Controller Assistant – Collaboration and Compliance Control Room | Emerging Tech & the Future Workforce

Securing the gas supply and making the industry sustainable with advanced technologies Control Room | Emerging Tech & the Future Workforce

How Alarm Management Has Evolved and What Does the Future Hold Control Room | Emerging Tech & the Future Workforce

Manual Operations Control Room | Manual Pipeline Operation & Business Continuity

Challenges and Lessons Learned of Implementing an Operations Continuity Plan

Control Room | Manual Pipeline Operation & Business Continuity

CRM Program – Teams Training Examples

Control Room | Team Training

Realtime Dataset Transfer for Offline Training and Predictive Modeling

Control Room | Team Training

Improving the Effectiveness of Team-Based Leak Detection Alarm Response

Control Room | Team Training

Who should be the focus of Control Room team training – the people that control the assets, or the people that may provide key information and decision-making input?

"Can Everyone See My Screen?" Lessons Learned Conducting Virtual Team Training Control Room | Team Training

Achieving the next level of pipeline intelligence through Virtual Competency Teams

Control Room | Team Training

Understanding and Teaching Hydraulics to Improve Controller Performance in Control Room | Team Training

Identifying Pipeline Leaks.

Roundtable on Cybernetics | Cybersecurity



Real-Time Data Distribution for Improved Leak Detection and Operational Intelligence in Pipeline Operations

Panel on Cyber Security

Midstream Cyber Security Risk-Based Controls

Achieving the next level of pipeline intelligence through Virtual Competency Teams

A Forty Year Perspective on Pipeline Leak Detection Technologies, Recommended Practices and the Evolution of Current Regulations

Pipeline Leak Evaluation and Management

RTTM based Leak detection system for Energy transition

Monitoring of High Pressure Gas Pipelines using Fiber Optic Sensing

Advantages of Machine Learning-Enhanced Leak Detection over Basic Line Balance

API RP 1175 impact on Transpetro's Leak Detection Program

Enabling Pipeline Monitoring Through the Retrofit of Cable-Based Technologies

Realtime Transient Modeling for Gas Pipelines

Leak Detection Key Performance Indicators and Metric Report Creation

How to replace CPM pipeline leak detection systems effectively?

Leak Detection User Round Table - Industry Discussion

Fiber Optic Leak Detection System

Leveraging Knowledge Management in the Optimization of the Display Lifecycle

The Good, the Bad and the Grey Screen: A Human Factors Approach to SCADA HMI Design and API RP 1165 Compliance

Understanding and Teaching Hydraulics to Improve Controller Performance in Identifying Pipeline Leaks.

Panel: Hydrogen and CO2 - Expanding Opportunities for the Pipeline Sector

Evolving the Pipeline Landscape

Storage Tank Vapor Assessment

High Consequence Areas: Location Matters

Maximize Sustainability and Safety with Advanced Automation Solutions

Characteristics of Energy Efficient, Low Carbon Intensity Pipeline Systems

ESG Update for the Pipeline Industry

In Situ Sorption/Bioremediation Ideal for Pipeline Releases

Consequence Modeling of Releases from Carbon Dioxide (CO2) Transport Pipelines

Wildland Fire Smoke Plume and Hurricane Forecasting

Cybernetics | Cybersecurity

Cybernetics | Cybersecurity

Cybernetics | Cybersecurity

Cybernetics | Emerging Technologies

Cybernetics | Leak Detection Advancements

Cybernetics | SCADA Improvements

Cybernetics | SCADA Improvements

Cybernetics | Workforce Development

Pipeline | Environmental, Social & Governance





Real World Use Cases of Oil Spill Modeling in Rivers and Lakes

Pipeline | Environmental, Social & Governance

PFAS Risk Management for Energy Pipeline | Environmental, Social & Governance

Let's Talk Conservation Pipeline | Environmental, Social & Governance

Panel: Updates on The Environmental Partnership (TEP)

Pipeline | Environmental, Social & Governance

Expanding Opportunities for the Pipeline Sector

Pipeline | Environmental, Social & Governance

Enhancing Contractor Management through PSMS and Safety Culture

Pipeline | Operational Excellence

Pipeline dead legs and potential pressure surges

Pipeline | Operational Excellence

New Gathering Pipeline Regulations An Operator's Perspective to Achieve

Operational Excellence!

Pipeline | Operational Excellence

API 1188 – A Strategic Approach to Facility Risk

Pipeline | Operational Excellence

Connecting PSMS With Our Field Work Force [Boots on the Ground] Pipeline | Operational Excellence

Demonstration of PSMS Voluntary Information Sharing (VIS)

Pipeline | Operational Excellence

Geographic Response Plan for Pipeline Water Crossings

Pipeline | Operational Excellence

What's in Your Audit?

Pipeline | Operational Excellence

Lessons Learned – Are we following through? Pipeline | Operational Excellence

Developing the Next Generation of Lifesaving Damage Prevention Practices and Metrics

Pipeline | Operational Excellence

Investigation of Facility Microbiological Induced Corrosion Failures

Pipeline | Operational Excellence

Impacts of Updated 49 CFR 192 Requirements for Pipeline Corrosion Control Pipeline | Operational Excellence

Safe Autonomous Operation of Liquids Pipelines Using Technology Pipeline | Operational Excellence

Lessons Learned from Girth Weld Failures of Newly Constructed Pipelines and Industry Responses Pipeline | Operational Excellence

Tyranny of TRIR as a Measure of Safety Performance

Pipeline | Operational Excellence

A Regulatory Compliance Management Process to Enhance Pipeline Safety and Pipeline | Operational Excellence

Compliance

Efficiently Achieve TVC Compliance
Pipeline | Operational Excellence

Improvement in Hydrotest Procedure and Practice at Phillips 66

Pipeline | Operational Excellence

SMS: Making It Work! Pipeline | Operational Excellence

Applying API 1173 to Assess Controls related to New Regulations

Pipeline | Operational Excellence

Waterway Modeling is Key in Determining Impacts or Proper Remediation Pipeline | Operational Excellence

Panel: Industry Updates on Pipeline SMS & Panel onContractor Guidance Pipeline | Operational Excellence

Panel: Case Study - Energy for Ecosystem

Pipeline | Stakeholder Engagement & Outreach

Opportunities in Public Awareness Outreach
Pipeline | Stakeholder Engagement & Outreach





Guidance for Forming Industry User Groups to Enhance Innovation and Pipeline | Stakeholder Engagement & Outreach Collaboration

The Difference in Today's RP 1162

Pipeline | Stakeholder Engagement & Outreach

Panel: RP 1185: What Is It and How Will It Help?

Pipeline | Stakeholder Engagement & Outreach

From Public Awareness to Stakeholder Engagement: A Technology Solution Pipeline | Stakeholder Engagement & Outreach older Engagement: A Technology Solution

Protecting the Public and Earning Their Trust: Mitigating Agricultural Risk Pipeline | Stakeholder Engagement & Outreach

Engagement – art or science? Pipeline | Stakeholder Engagement & Outreach

Modernizing Stakeholder Communications and Engagement

Pipeline | Stakeholder Engagement & Outreach

Do You Really Know Your Pipeline Route?

Pipeline | Stakeholder Engagement & Outreach

Youth are Critical Stakeholders

Pipeline | Stakeholder Engagement & Outreach

Application of Volatile Corrosion Inhibitors (VCI)

Pipeline | Technology & Innovation

Improvement of ILI Sizing Accuracy for Problematic Corrosion Profiles

Pipeline | Technology & Innovation (PHMSA Project)

Integrated External Corrosion Management - Using Digital Twins

Pipeline | Technology & Innovation

Further Advances in DAS for Ground Subsidence and Temperature Monitoring Pipeline | Technology & Innovation

Visualization of Geohazard Movement Assessments Using Google Earth Pipeline | Technology & Innovation

In-Line Inspection Performance for Mechanical Damage with Coincident

Pipeline | Technology & Innovation
Features

Reshaping geohazards Pipeline | Technology & Innovation

Integrity Data in BI Dashboards Drives Engineering Insights and Program

Pipeline | Technology & Innovation
Performance

Essential Elements and Guidelines to Perform a Dent Engineering Critical Pipeline | Technology & Innovation

Assessment

Commercialization

Nondestructive Testing for Toughness of Vintage ERW Pipes Pipeline | Technology & Innovation

Using Digital Image Correlation Technology To Enhance Learnings From Pipeline | Technology & Innovation Traditional Pipeline Integrity Testing

Advances Considering Technology Readiness, Regulations, and Pipeline | Technology & Innovation

Recent Advances in Automated Threat Detection and Reporting On Routine

Pipeline | Technology & Innovation Aerial Patrol

Dent Fatigue Life Assessment – Proposed Modifications to API RP 1183 Pipeline | Technology & Innovation

Regulations and Integrity Requirements of Supercritical CO2 Pipelines Pipeline | Technology & Innovation

Satellite Remote Sensing Data Analytics for Operational Monitoring of Pipeline Pipeline | Technology & Innovation System

Unprecedented Insight into In-Line Inspection Analyitics Pipeline | Technology & Innovation

Effects of Surface Loading on Pipeline Integrity

Pipeline | Technology & Innovation





Impact of CO2 Impurities on Corrosion of Pipelines Transporting Dense Phase CO2

Considerations for Crack ILI Response in Hazardous Liquids Pipelines

Know Your Pipeline with UHR MFL/Cal ILI

Girth Weld Reinforcement with Type B Sleeves

Potential Safety and Integrity Challenges of Hydrogen Pipelines Subjected to Geohazards Loading

Using Satellites for Enhanced Leak and Risk Id., ESG Performance, Compliance & Trust

Damage Prevention and ROW Integrity 2.0 : Analysis of First Multi-operator Operational Campaign

Pipeline Integrity and Leak Detection Verification and Validation Advancements

GIS Technologies for Responsive Pipeline Engineering and Design

Pipeline Stacked Cracks Interaction Burst Pressure Analysis Using 3-D Crack Meshes

Operational Digital Platforms for Offshore Operators

How to integrate Operator Qualification (OQ) into your O&M Competency Management Program

The Science of Safety Training; Defining The Fundamental Drivers of Adult Learning

'Moving from task-based to competency-based talent management: Case Study'

The Normalization of Excellence: A Critical Success Model

Pipeline | Technology & Innovation

Pipeline | Workforce Development

Pipeline | Workforce Development

Pipeline | Workforce Development

Pipeline | Workforce Development