IMPORTANCE OF DATA AND SHARING IN OUR DRIVE TOWARD ZERO

Pipeline Safety Trust
2019 Annual Conference
New Orleans, LA

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Industry Awakening

• Bellingham was the impetus for sweeping changes within the industry

• New mandates strengthened PHMSA Office of Pipeline Safety initiatives and the Agency created several new regulatory programs for pipelines

• The pipeline industry advanced pipeline safety and reliability through the development and adoption of API leading practices and standards that exceed current regulatory requirements

• But more importantly changes in the aftermath of Bellingham put a spotlight on the importance of data to support how operators managed the integrity and operations of their pipelines and engaged with key stakeholders and the public
Transformation of Data & Information

• Pre-Bellingham Data Landscape
  – PHMSA incident data limited
  – No mapping data reporting requirements (Voluntary only)
  – No specific damage prevention data reporting requirements
  – OMB more reluctant to require collection of data
  – Common ground study completed but no one-call requirement

• Post Bellingham Data Landscape
  – Mandatory reporting requirements for National Pipeline Mapping System
  – Greater Emphasis on One-call Programs and tracking of 3rd party damage
  – Industry builds own data tracking system to fill data gaps
  – Significant focus on data for integrity management programs
Dedicated Data Tracking System

• API/AOPL’s Pipeline Strategic Data Tracking System (Formerly PPTS), created to support data needs at time when PHMSA data collection not as robust

• Analysis of PHMSA and PSDTS hazardous liquid accident and annual/infrastructure data allows for operator benchmarking across the industry

• Focus has expanded from accident and annual/infrastructure data to include other leading and lagging indicators such as PHMSA’s enforcement data, safety related conditions and IM notifications.
• Created a Data Management Team (DMT) in 2000 to address data needs for liquid pipeline operators

• Consists of pipeline operators charged with the management of data within their organizations and oversight of the API/AOPL’s Pipeline Strategic Data Tracking System

• The DMT provides critical analysis and key insights into the data to support liquid pipeline leadership decision making and execution of strategic priorities for liquid pipeline operators (3-Year Strategic Plan)
Benefits of PSDTS & PHMSA Data

• Operator Performance Comparison Reports
• Supporting Data for API/AOPL Strategic Initiatives
• **Advisories**
  • Electrical Related Release Advisory
  • Releases to Facility Piping and Equipment
  • Corrosion release advisory
The Evolution of Data for Integrity Management

Baseline in establishing integrity management programs under a new regulatory regime

Ongoing advances in inspection technology driving better data, but also emphasizing the importance of analysis

Technology advancements and data accuracy provides operators with the ability to more effectively assess and manage risks along the pipeline

Data collection through research and development and operator inspections and sharing next phase in maximizing data
## RP 1173 and Pipeline SMS Fundamentals

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>10 Elements</strong></td>
<td>Yields a cohesive system</td>
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<tr>
<td><strong>System</strong></td>
<td>Flexible &amp; scalable</td>
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<td><strong>Journey</strong></td>
<td>Plan-Do-Check-Act</td>
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<tr>
<td><strong>Positive Safety Culture</strong></td>
<td>A must!</td>
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![Diagram](https://via.placeholder.com/150)

- **Inputs:**
  - Risk Management
  - Leadership and Management Commitment

- **Outputs:**
  - Incident Investigation, Evaluation and Lessons Learned
  - Safety Assurance

- **Steps:**
  1. **PLAN**
  2. **DO**
  3. **ACT**
  4. **CHECK**

- **Subtopics:**
  - Emergency Preparedness and Response
  - Operational Controls
  - Competency, Awareness and Training
  - Documentation and Record Keeping
  - Stakeholder Engagement
Data Core to SMS & Continuous Improvement

Conformance to API RP 1173
Company Culture
Key Performance Indicators

Zero Incidents
Key metrics used in comparison to industry averages provide the effectiveness score as an addition to conformance.
Benefits Beyond Safety

Process Safety
IMPROVED DECISION-MAKING

Knowledge Transfer
PERFORMANCE IMPROVEMENT
IMPROVED EMPLOYEE MORALE

Meet/Exceed Stakeholder Expectations
EFFICIENCY AND EFFECTIVENESS BALANCE
COMPLIANCE ASSURANCE
Creating a Sharing & Learning Culture

Tools
- Guide to Sharing
- Guide to Learning
- Recommended Practice 1173 (RP 1173)
- Ad hoc peer-to-peer sharing brochure

Sharing Platforms
- Pipeline Information eXchange (PIX)
- Pipeline Industry Practical Experience Sharing (PIPES)
- Quarterly Virtual Tailgates (VT)
- Pipeline Conference
- Safety share at all meetings (PSE SC, Pipeline Subcommittee, Midstream Committee, etc.)
- Roundtable safety sharing at workgroup meetings (PET, COG, PLIG, etc.)
What Does The Future Look Like?

- Industry-wide KPIs to measure progress and improvement
- Evaluation of growth and development of Pipeline SMS
- Aggregation of data to demonstrate implementation progress of Pipeline SMS within the pipeline industry
- Anonymous benchmarking across industry peers
- Supporting audits and evaluations

What Does The Future Look Like?

AGA Peer Assessments
API PIX/COS Virtual TG
APGA
INGAA Lessons Learned
Common Ground Alliance
SGA Roundtables
PRCI TDC
PRCI ILI R&D
Standards Making Organizations
GTI IM Assessment Validation Projects
Labor/Workforce/Contractors
Congress, States & Local Officials
PHMSA GIS, Incident & PL Data
PHMSA R&D
PHMSA Investigations & Enforcement
NTSB Investigations
Assessment Providers
API 1163 Process
Pipeline Operators
NGO’s PST, EDF
PHMSA & State Partners
Congress, States & Local Officials
PHMSA R&D
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VIS Data Hub

Information Sharing
Data Quality & Validation
Dec-identified Data & Information
Analyses and Evaluation