Pipeline Safety Management System Journey

API RP-1173 – Pipeline Safety Management System

WUTC Safety Seminar: June 6, 2018
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Presentation Overview

- Avista Gas Operations
- API RP 1173 Initial Engagement, Maturity and Approach
- Current Activities
- Roadmap/Path Forward
Avista Utilities

Customers
347,000 - Gas
382,000 - Electric

Employees
1,751 - Total (End 2017)
234 - Gas

Pipeline (Miles)
12,996 - Dist. Main and Service
88 - Transmission
Avista - PSMS Initial Engagement

- Committed to PSMS Journey
- Created Pipeline Safety Planning Manager Position
- Initiated A Safety Culture Survey
- Began Process of Understanding and Planning for PSMS
- Participated in American Gas Association (AGA) PSMS Pilot Program
Pipeline SMS Maturity Model and Tools

**LEVEL 1**
PLANNING
Are you starting?
- Organization is developing an understanding of the management system
- Implementation action plan developed
- Implementation action plan approved

**LEVEL 2**
DEVELOPING
Are you developing it?
- Processes are being developed
- Implementation is about 50% complete

**LEVEL 3**
IMPLEMENTED
Did you develop it?
- Processes are developed
- Processes are documented
- Processes are in use

**LEVEL 4**
SUSTAINING
Do you do it?
- There is evidence of processes being used consistently
- Performance is being assessed

**LEVEL 5**
IMPROVING
Is it helping?
- There is evidence of continual improvement
- Processes are resulting in measurable performance improvements

*Reference: Modified from pipelinesms.org*
Pipeline Safety Management System Development Approach

10 Essential Elements of RP 1173

1. Leadership and Management Commitment
2. Stakeholder Engagement
3. Risk Management
4. Operational Controls
5. Incident Investigation, Evaluation and Lessons Learned
6. Safety Assurance
7. Management Review and Continuous Improvement
8. Emergency Preparedness and Response
9. Competence, Awareness and Training
10. Documentation and Record Keeping

API RP-1173 – Is a pipeline Safety Management System (SMS) with the goal of enhancing the effectiveness of risk management and enable continual improvement of pipeline safety performance. (RP Finalized 2015)
**PSMS Governance**

**Element 1:** Leadership and Management Commitment

**Executive:** Executive Leadership accountable for implementation of PSMS elements.

**Technical:** Managers responsible for the implementation of specific PSMS elements.

**Operational:** Members responsible for implementation of specific PSMS elements.
14 Programs, Policies, Procedures

- TIMP
- DIMP
- Public Awareness
- Internal QA/QC and Investigations
- Operator Qualification
- Control Room Management
- Contractor Pre-Qualification and Evaluation
- Management of Change
- Gas Standards Manual
- Gas Emergency and Service Handbook
- Leak Survey
- Atmospheric Corrosion
- Isolated Steel
- Safety Culture Survey
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Avista Alignments with RP 1173

- Leadership Commitment
- Human Performance Improvement
- Stop Work Authority
- Safety Culture Survey
- Safety Action Boards
- QA/QC Incident Investigation and Lessons Learned
- Underground Damage Prevention
- Business Process Improvement

**Human Performance Improvement**

- HPI Volume 1 Concepts and Principles.pdf
- HPI Volume 2 Tools for Individuals_Work Teams_Management.pdf
Current Activities

• Baseline Gap Analysis
• Develop Risk Register/Prioritize Closing Gaps
• Communicate and Socialize Program
• Centralized PSMS (MS SharePoint Site)
• Work Towards Implementation in Ngas
• Consider Implementation Across Business
Areas of Improvement (preliminary)

- Management of Change
- Communicating lessons learned
  - External events
  - Revisiting past events/lessons learned
- Stakeholder Engagement
  - (Improve two-way communication)
- Emergency Preparedness
  - Centralize mock and table top exercises
Generalized Roadmap

“While operators should seek to gain conformance with a sense of urgency, timeframes to reach significant and widespread maturity across all elements are measured in years. As PSMS matures, it is subject to assessment and continuous improvement.”
Questions