PIPELINE SAFETY
MANAGEMENT SYSTEMS

2018 Annual Report

Pipeline SMS

energy **API**

AGA 100 YEARS

AOPL Association of Oil Pipe Lines

canadian energy pipeline association | association canadienne de pipelines d'énergie

American Public Gas Association

INGAA

THEME FOR 2018: MAKING IT REAL

After publication of the API Recommended Practice (RP) 1173, *Pipeline Safety Management Systems* (Pipeline SMS), in 2015, the pipeline industry began efforts to promote adoption of the RP among operating companies. This included the creation of materials to promote awareness about the RP, workshops, webinars, and presentations to discuss the RP, and the development of various tools to assist operators in their implementation efforts. Many operators committed to pursue implementation and began their implementation journey to improve their overall pipeline safety performance.

A Pipeline SMS is much more than a book on a shelf, or a set of sterile policies and procedures. It affects all aspects of the operating organization, from line workers to executive management, and becomes ingrained in a company's culture. Transformations like this take a lot of thought, hard work, and time.

The theme of the joint Pipeline SMS team efforts in 2018 was "Making It Real." How can operators make those hard decisions about what to implement first, and grapple with a multitude of implementation details? How can progress be measured? How can they ensure that, in the end, their Pipeline SMS makes a real difference in their performance and risk profile?

LETTER FROM THE OUTGOING AND INCOMING CHAIRS

As I reflect on our journey since 2015, it is amazing how far we have come. We have improved commitment, developed booklets, tools, and videos, built a website, and hosted webinars and workshops to help people gain a better understanding of Pipeline SMS. This work allowed us to share and learn from one other while promoting the benefits of implementing Pipeline SMS. The accomplishment I am most proud of is the combined efforts of the liquids and gas pipeline industries. We started out on separate paths with the same goal and combined our efforts to push forward as a united front ("One Team, One Goal") to improve pipeline safety performance.

Even though we have made great progress, we have a long way to go on our journey ahead. The Pipeline SMS Industry Team is well-positioned to continue driving Pipeline SMS forward and helping the pipeline industry unlock the benefits of applying Pipeline SMS.

Remember: If anyone tells you they have arrived, they are missing the point; It's a journey, not a destination.

Best wishes on your journey,

Shawn M. Lyon
President, Marathon Pipe Line LLC

Shawn, Ann-Marie, and the Industry Team have done amazing work in leading the way for Pipeline SMS. I thank them for their tireless effort and extensive contributions over the last four years. I am excited to lead this team going forward as we continue to promote and facilitate adoption of Pipeline SMS throughout all segments of the energy pipeline industry. Our focus over the next couple of years will be to increase industry participation, ensure proactive stakeholder engagement, provide ongoing support for operator journeys, and ensure proper governance and oversight for the Recommended Practice.

Thank you for your support of Pipeline SMS as we continue our industry journey to zero incidents!

Angela Kolar
Vice President and Chief Risk Officer, Colonial Pipeline Company
Chair, Pipeline SMS Joint Industry Team

KEY EVENTS IN 2018

All segments of the energy pipeline industry were busy promoting and assisting members with adoption and implementation of Pipeline SMS.
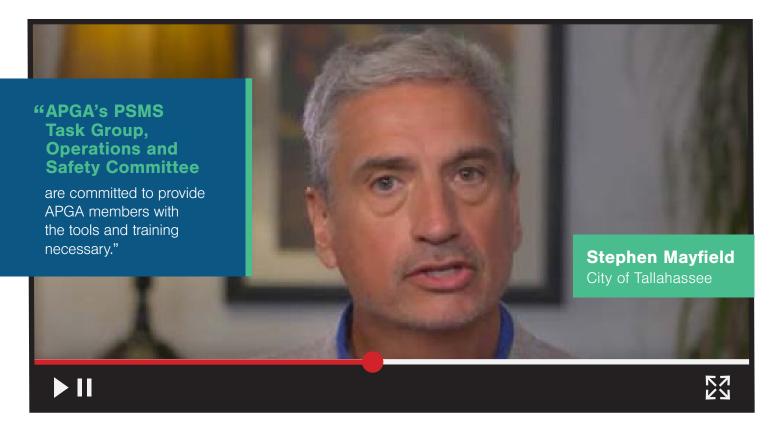
Some of the Key Events include:

- **January:** AGA held a Pipeline SMS workshop in San Diego, with more than 100 attendees

- **April:** Five pipeline operators gave presentations regarding their SMS journeys at the API Pipeline Conference and Cybernetics Symposium

- **April:** The revamped *www.pipelinesms.org* website was launched, providing an improved user interface and easier access to the tools and reference materials

- **July:** INGAA Foundation published its Safety Culture Report

- **July:** The APGA Commitment to Pipeline Safety was approved by its board

- **August:** AGA published "Guidelines to Understanding Pipeline Safety Management Systems" with practical guidance to assist gas distribution pipeline operators in beginning their Pipeline SMS journey

- **September:** The Pipeline SMS Evaluation Tool and Guidance were finalized and posted

- **October:** Leader of the joint industry Pipeline SMS Effectiveness Team, Tony Cockshutt, gave a presentation at the APGA Operations Conference

- **October:** The Pipeline SMS Industry Team hosted a Tools Workshop in Galveston with 87 participants from 40 companies

- **October:** APGA created an online survey system to help small distribution operators understand the level of development of their current management systems

- **November:** INGAA Foundation hosted a Safety Culture Workshop

MAKING IT REAL
IN THEIR OWN WORDS

> **"APGA's PSMS Task Group, Operations and Safety Committee**
> are committed to provide APGA members with the tools and training necessary."

Stephen Mayfield
City of Tallahassee

"SMS was like the light at the end of the tunnel. This is what we need to be doing. We came together as a group, developed a plan, and went from there."

Chris Shorokey
VP and General Manager
MIPC LLC

"As we worked through the actual Elements we realized we were doing many of these things already, and that it wasn't adding additional work, it was really just strengthening the programs we already had in place."

Rich St. Amour
Manager, Engineering and Maintenance
Marathon Pipe Line LLC

" We said from day one that we weren't going to *market* SMS as a new program. We wanted it to grow organically. We understood this was about **strengthening our existing programs and processes to advance our safety culture.**"

Katie Hellfritz
Senior Director
Gas Governance, Xcel Energy

" **The culture shift to risk management** must seep into every corner of the organization. It has to be pushed down from senior leadership that this is important and it's how we're going to operate. It's mid-management continuing to push that messaging out and hold themselves accountable to senior leadership. And it's gaining buy-in from frontline employees."

Zachary Lowe
Director
Pipeline Safety Management, Virginia Natural Gas

" The proactive risk management perspective of API RP 1173 informs decisions about design, construction, inspection and maintenance of facilities. Without API RP 1173, people would undertake that anyway, but it's a much more disciplined and formal way of recognizing it, capturing it and making it sustainable. **It forces us to build that institutional knowledge, that understanding, and to capture it and memorialize it.**"

Timothy Woycik
Director
Pipeline Safety Management - Programs, National Grid

" **My team's job is to get people comfortable that we're not the police.** We're trying to identify places where we can help the organization prioritize how to use resources. Responsiveness encourages a steady stream of input from employees confident that their concerns will be dealt with appropriately."

Luke Buzard
Director
Pipeline Safety and Operational Services, TECO Peoples Gas

...AND OTHERS

" We have found that we can accelerate the adoption of management systems by focusing on clear leadership roles and overarching governance processes. Many of the management system elements have been in place for some time in our organization, but the PSMS helped us **FOCUS ON SPECIFIC MANAGEMENT ENGAGEMENT ISSUES.** This included getting clear about the specific roles of leaders as well as specifying the structured information that leaders need on a regular basis to support sound decision-making. "

" Although early in our journey, our Midstream organization has made substantial progress in applying PSMS concepts over the past couple of years. The P-D-C-A cycle has noticeably strengthened fundamental processes such as Root Cause Analysis (RCA) and Management of Change (MOC), while solidifying higher level practices within our Integrity Management Plan (IMP). As we continue integrating the techniques outlined within API RP 1173, synergies are being realized in existing safety driven processes, such as OSHA Process Safety Management (PSM) and Process Hazard Assessments (PHA). We envision a broader application of PSMS across our organization, and will be incorporating our safety and environmental functions to create a **MORE COMPREHENSIVE RISK MANAGEMENT SYSTEM.** "

" Completing the continual improvement tools was very eye-opening. I realized how many assumptions I was making about my process without taking measurements or tracking feedback. Since completing the tools, I've **IMPLEMENTED CONTROLS THAT WILL ENSURE CONTINUED GROWTH.** "

" Our company's management system has been an engine for continuous improvement towards our goals — an example is the update of the risk management standard and procedure to reduce complexity, streamline process and establishing clear requirements which allow for an **IMPROVED UNDERSTANDING AND MANAGEMENT OF RISK** across the company. "

" **THE SCOPE OF OUR MANAGEMENT SYSTEM IS OUR WHOLE BUSINESS,** not just Health, Environment, Safety & Security (HES&S). This allows us to focus on improvements across our company. We're doing it holistically and institutionalizing it for generations to come. "

" As a new supervisor coming into the company, completing a process-level management review provided an extensive process overview. It was an efficient use of time providing insight into what process changes have already been implemented and gaps/concerns still to be addressed. **IT PROVIDED A FULL PICTURE ALL AT ONCE INSTEAD OF LITTLE PIECES** here and there. "

" As we work toward a regular schedule for our program elements, the benefits of the PDCA cycle become more and more evident. These steps have helped to **RECOGNIZE NEW THREATS** and then incorporate them into our programs on our journey to zero incidents. "

MAKING REAL PROGRESS

Almost 100 companies throughout the energy pipeline industry responded to the voluntary Pipeline SMS industry survey for 2018. These companies operate about 1.3 million miles of pipeline and serve almost 46 million customers throughout the United States. Compared to the 2017 survey results, the 2018 survey continues to show significant progress in the adoption and implementation of RP 1173 throughout the energy pipeline industry.

+50

LEADERSHIP COMMITMENTS

50 more companies answered **YES** to the question "Has organizational leadership demonstrated a tangible commitment to the implementation of a safety management system (Pipeline SMS)?"

+26

SAFETY CULTURE SURVEYS

26 more companies answered **YES** to the question "Has your company taken any steps to assess your safety culture post 2014?"

+43

GAP ASSESSMENTS

43 more companies answered **YES** to the question "Has your company performed a gap assessment or evaluation of level of maturity of your safety management program?"

+47

CLOSURE PLANS

47 more companies answered **YES** to the question "Has your company taken initial steps or developed plans to prioritize and address the gaps or improvement opportunities?" The vast majority of these companies plan to close these gaps within 5 years.

CONTINUED ENCOURAGEMENT AND RECRUITMENT

The energy pipeline industry uses multiple methods to reach the largest audience possible to encourage and assist those operators who have already committed to their Pipeline SMS journey and to recruit others to begin. **In 2018, this included the following activities:**

- Development and posting of 4 **PEER-TO-PEER COMMUNICATIONS VIDEOS:**
  – Pipeline SMS Benefits
  – Culture of Continuous Improvement
  – Small Operators Embracing Pipeline SMS
  – Distribution Pipeline Operators Implementing Pipeline SMS

- **4 INDUSTRY-WIDE WEBINARS** on various Pipeline SMS topics from a total of 310 dial-in locations, with some locations having multiple participants on the line

- **3** Pipeline SMS Industry Team **FACE-TO-FACE MEETINGS**

- **2 INFO-SHARES** by pipeline operators concerning details of their Pipeline SMS implementation

- **2 PODCASTS** on Pipeline SMS for industry audiences

- A presentation on Pipeline SMS to the National Association of Regulatory Utility Commissioners **(NARUC)**

- A presentation on Pipeline SMS at the **ANNUAL INTEGRITY PLUS SYMPOSIUM**

- A presentation on Pipeline SMS to the **ENERGY PIPELINE MANAGEMENT SUMMIT** in Dallas, TX

- A presentation on Pipeline SMS and a booth at the **INTERNATIONAL PIPELINE CONFERENCE** in Calgary

- A presentation on Pipeline SMS at **DISTRIBUTION CONTRACTORS ASSOCIATION** Annual meeting

- A presentation on Pipeline SMS at the **DCA AND AGA UTILITY CONTRACTOR WORKSHOP**

RECOGNITION OF PROGRESS MADE

Pipeline operators have made real progress implementing Pipeline SMS to improve overall safety performance. On July 25, 2012, the National Transportation Safety Board (NTSB) issued Safety Recommendation P-12-017, which stated:

To the American Petroleum Institute

Facilitate the development of a safety management system standard specific to the pipeline industry that is similar in scope to your Recommended Practice 750, *Management of Process Hazards.* The development should follow established American National Standards Institute requirements for standard development.
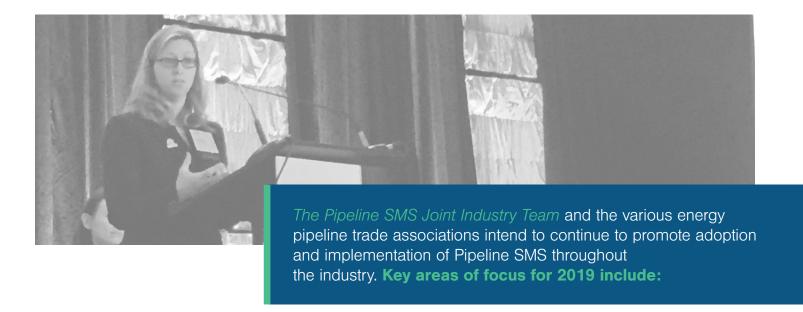
NTSB Closes Recommendation

In 2018, the NTSB closed their recommendation, "Closed–Exceeds Recommended Action: Response by recipient indicates action on the safety recommendation has been completed. The action taken surpasses what the Safety Board envisioned."

On July 11, 2018, six years after their recommendation, the NTSB invited **Shawn Lyon** of Marathon Pipe Line LLC and Chair of the Pipeline SMS Industry Team to give a presentation at its investigative hearing on managing safety on passenger railroads, so that participants of the rail hearing could hear from the energy pipeline industry concerning its experience in developing a Pipeline SMS and implementing SMS throughout the industry.

Afterwards, NTSB Chairman Robert Sumwalt congratulated the pipeline industry for moving so quickly to implement the NTSB recommendation to adopt safety management systems and said he was pleased with the benefits already seen.

PLANS FOR THE FUTURE

The Pipeline SMS Joint Industry Team and the various energy pipeline trade associations intend to continue to promote adoption and implementation of Pipeline SMS throughout the industry. **Key areas of focus for 2019 include:**

Increase Industry Participation

The Joint Industry Team will identify "barriers to entry" for operators that are aware of the RP but have not committed to implement it, to help find ways to overcome those barriers. Many pipeline operators are more engaged with trade associations at the state or regional level than at the national level. The team intends to assist and encourage those state and regional trade associations in promoting Pipeline SMS among their memberships. In addition to working with pipeline operator companies, efforts are underway to promote Pipeline SMS and related continuous improvement concepts into the supplier and contractor communities.

Provide Ongoing Support for Operator Journeys

Feedback from webinars, workshops, and meetings indicates that pipeline operators are beginning to have a good understanding of **what** types of things are required for a Pipeline SMS, but they sometimes struggle with **how** best to do them. The Joint Industry Team will continue to provide webinars, workshops, and tools, and transition its communications and coordination efforts to help operators share and learn from one another on the strategies, tactics, and structures they are using to effectively implement a Pipeline SMS.

Ensure Proactive Stakeholder Engagement

The Joint Industry Team has established a subcommittee to ensure proactive stakeholder engagement. Key audiences have been identified and materials are being developed to facilitate awareness and understanding of the RP, encourage implementation on a sustainable basis, and communicate progress.

Ensure Proper Governance and Oversight

The Joint Industry Team, and the RP itself, will require oversight, structure, and strategic direction to be sustainable over the long term. This includes a charter for the team, development of teams and subcommittees, regular calls and meetings, and progress tracking. The individual trade associations will continue their efforts to promote and support implementation of the RP among their membership, with support, coordination, and strategic guidance from the Joint Industry Team.

NOTES

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