

PIPELINE SAFETY MANAGEMENT SYSTEMS

—
Pipeline SMS
2020 Annual Report

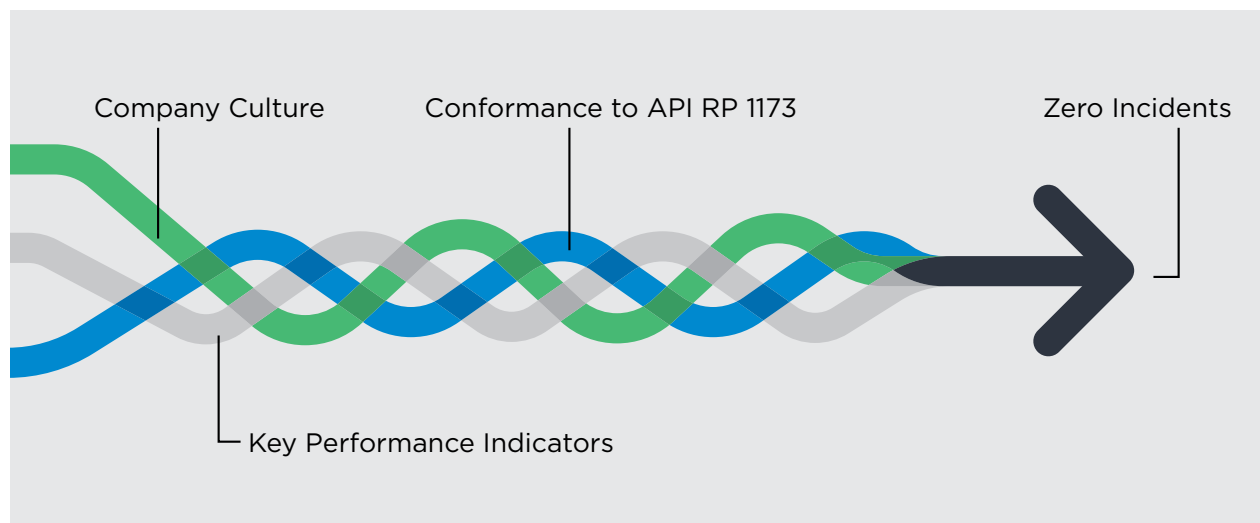


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PIPELINE SMS: ONE INDUSTRY, ONE GOAL

After the publication of API Recommended Practice (RP) 1173, *Pipeline Safety Management Systems (Pipeline SMS)* in 2015, the pipeline industry began efforts to promote commitment and implementation of the RP. This included the creation of materials to spread awareness about the RP, workshops, webinars, and presentations to discuss the RP, and the development of implementation tools to assist operators. Since 2015, Pipeline SMS implementation has expanded beyond liquids pipeline operators to include gas distribution, transmission, and gathering operators, our Canadian counterparts, and the contractor community, all in the united goal of operating with zero incidents.



**ANGELA KOLAR**

Vice President and Chief Risk Officer,
Colonial Pipeline Company

*Immediate Past Chair,
Pipeline SMS Industry Team*

LETTER FROM THE OUTGOING TEAM CHAIR

I am honored to have had the opportunity to serve with such an amazing team over the past few years. Working across the pipeline industry with this dedicated group has taught me so much about pipeline safety advocacy and how much the industry truly cares about safe operations.

I am extremely proud of the PSMS Industry Team's accomplishments during our time together. Our focus has been on increasing operator engagement for those just getting started as well as those that are well along their journey to implementation. I want to give a "shout out" to the industry operators who have stepped up and stepped out to reach your PSMS implementation goals; we're all in this together! The Industry Team has also focused on increasing our external stakeholder engagement efforts to ensure that our regulators and other stakeholders are aware of the tremendous efforts taking place for PSMS across the industry. I'm proud of the connections we have made and I encourage operators to continue this dialogue to reinforce the message on the importance of our PSMS journey and efforts.

I'm not quite finished yet as I am fortunate to be a part of this team for one more year as Past-Chair! I want to thank John Hill for his support as Vice-Chair over the last year and I am excited to see the great things to come with John's leadership in 2021! Thanks again to the PSMS Industry Team for your hard work and contributions; it has truly been a pleasure working with you.

For all the dedicated operators out there - thank you for your efforts in the journey to implement PSMS as we find our way to ZERO incidents!



JOHN HILL

Vice President of Natural Gas System
Safety, Black Hills Energy

*Chair, Pipeline SMS Industry Team
One Industry, One Goal, Zero Incidents!*

LETTER FROM THE INCOMING TEAM CHAIR

I can't think of a more noble purpose than to protect our coworkers, customers, and the communities we serve. The pipeline industry provides an essential service to our country and has focused significant time and resources over the past five years to enhance the safe and reliable delivery of energy.

As we look ahead on our journey, it is important to take a moment to thank everyone that has given their time and talent to get us to this point. I want to specifically thank Angie Kolar for her leadership the past two years as we transitioned from a "start-up" to a strategically focused, goal-oriented team that now encompasses nine trade associations and multiple operators representing a comprehensive blend of the pipeline industry.

Far from letting the impact of COVID-19 deter us from our mission in 2020, the pipeline industry used the PSMS framework to support our response to the pandemic. You will see great examples throughout the annual report highlighting the importance of developing consistent and resilient processes using API RP 1173 to prepare for and respond to adversity.

Pipeline SMS will continue to be foundational to our safety culture for years to come and this team will remain focused on increasing its use while supporting operators on their SMS journey. I am excited to build upon the progress of the past few years, connecting our stakeholders to ensure we remain focused on our goal of zero incidents.

2020 KEY EVENTS

IN 2020

Despite the challenges of 2020, all segments of the pipeline industry demonstrated progress on their Pipeline SMS implementation journey. The Pipeline SMS Industry Team focused around four key areas:



Increase Industry Participation



Provide External Engagement



Support Operator Journeys



Ensure Governance & Oversight



KEY EVENTS INCLUDED:

TOOLS & TRAININGS

- Hosted Virtual Workshop Series on Pipeline SMS Elements from October 5-8
- Promoted use of [RP 1173 eLearning](#) available for operators
- Developed a map of requirements between RP 1173, 49 CFR 192 & 195, and Integrity First
- Conducted the first liquids pipeline safety culture survey with eight operators
- Developed brief on SMS usage during the COVID-19 pandemic for external stakeholders
- Updated PSMS Evaluation Tool Key Performance Indicators (KPIs) on [PipelineSMS.org](#)

OUTREACH & ENGAGEMENT

- Published the 2019 Annual Report demonstrating industry implementation progress
- Engaged federal regulators, including PHMSA and NSTB, as well as pipeline public safety groups on the Annual Report and industry progress
- Promoted Pipeline SMS communications and social media toolkit for the month of July
- Highlighted operator journeys of SMS implementation during API's Virtual Pipeline Conference Series
- Conducted a webinar with [Hart Energy on the value of the API PSMS Third-Party Assessment Program](#)

INDUSTRY PARTICIPATION

- Conducted 2020 Annual Survey representing majority of pipeline industry mileage
- Identified barriers to implementation for the Industry Team's development of tools
- Outlined additional implementation tools, briefings, and training materials for operators for 2021

GOVERNANCE & OVERSIGHT

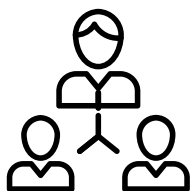
- Oversaw continued improvements of API Pipeline SMS Third-Party Assessment Program through operator and assessor feedback
- Tracked progress against Industry Team's seven key performance indicators in 2020
- Monitored Pipeline SMS language in PHMSA reauthorization
- Provided leadership over request and affirmation of two-year extension for RP 1173, as well as review and potential revision process over next two years



PIPELINE SMS DURING COVID-19

2020 was certainly an historic year and one we will likely never forget. The pipeline industry, like so many others, experienced significant disruptions through social distancing and virtual work environments, followed by the market downturn from a demand collapse and job layoffs. For many operators, COVID-19, social unrest, and natural disasters have all competed for resources and personnel with Pipeline Safety Management Systems (PSMS) implementation activities.

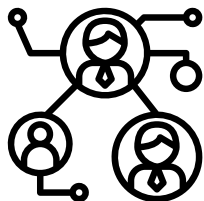
Faced with these challenges, the industry made significant progress in 2020 implementing PSMS across gathering, transmission, and distribution lines carrying oil, natural gas, and refined products. During this past year, PSMS also illustrated great value in providing a robust risk management framework through which tough decisions around processes and budgetary constraints could be accurately made. These tangible examples from operators in their own words highlight “real life” benefits of PSMS implementation, even during a global pandemic. During historic times, operators, even those early on in the journey, integrated existing programs to cover many of the requirements of RP 1173, make challenging decisions, and appropriately manage risk.



LEADERSHIP AND MANAGEMENT COMMITMENT

Leadership and senior management demonstrated their commitment to safety during COVID-19 by activating Incident Command Structures, serving on crisis management teams, and frequently communicating with employees to reinforce safety culture and support business continuity.

- “The elements of the PSMS are great reflection of mission, vision and values of our organization. With that type of framing in place, leadership and employees already understand the importance of each element and conversations can then flow to gaps and improvement.”
- Natural Gas Distribution Pipeline Operator
- “By having an established management system in place, we were able to continue to provide oversight over our SMS as we transitioned the way we do work during CoVid-19 and remain confident in the effectiveness of our programs. We leveraged our Emergency Preparedness and Response, activating integrated Crisis Management Teams, Emergency Operations Centers and Incident Management Teams to adapt to the pandemic environment, and Stakeholder Engagement processes ensured that internal and external stakeholders were equipped with the information necessary to operate safely.”
- Liquids Pipeline Operator



STAKEHOLDER ENGAGEMENT

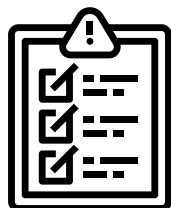
Pipeline operators maintained frequent and proactive communication with the public on their commitment to the safe delivery of energy, as well as with employees, contractors, federal and state regulators, and emergency responders. During COVID, operators rolled out technology to enhance socially-distanced collaboration between internal and external stakeholders.

- Before COVID, one operator conducted over 40 in-person employee meetings across eight states to share risks and opportunities for improvements with the Company's SMS Team. The Team also established a dashboard so "employees could submit risks, improvement ideas, and standout employees who are supporting the SMS, directly to the SMS department. These submissions are each reviewed and responded to by the SMS team and have resulted in procedure improvements, identification of additional training needs, and specific cross-functional projects to reduce operational risks."
- "We have recently initiated a bi-monthly communication plan to educate our workforce on the various elements of API RP 1173 and how we plan to implement (or how we are implementing these elements). The purpose of the communication is to help each employee see how they contribute to overall pipeline safety."

- Natural Gas Distribution Pipeline Operator

- "The company utilizes an internally-facing social media application to engage with its employees and push safety messaging and PSMS initiatives."

- Natural Gas Distribution Pipeline Operator



RISK MANAGEMENT

In response to the pandemic, operators around the country quickly adapted to effectively manage changing risks. Companies utilized the Incident Command Structure (ICS) framework to communicate expectations to employees and allow for feedback loops from field operations. Operators also ranked job lists and types by risk category to determine which tasks were critical and which could be deferred.

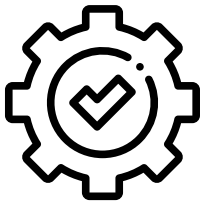
- "Using Plan / Do / Check / Act, we first conducted a risk assessment of suspending these programs {affected by COVID}. We then identified mitigation actions to address those suspended programs that might increase pipeline safety risk and revised our Operational Controls to implement those actions. We continued to monitor the impacts of these suspended programs and, when safe to do so, resumed them by addressing the backlog of jobs created by the suspension (Management Review and Continuous Improvement)."

- Natural Gas Distribution Pipeline Operator

- "As the COVID-19 situation continues to evolve, many of the communities where we live and work are reopening their economies with a staged approach. Our return-to-office approach and our decisions have been, and will continue to be, guided by our values – first and foremost safety. Our workforce's health and safety continue to be our top priority."

- Natural Gas Transmission Pipeline Operator

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OPERATIONAL CONTROLS

Using PSMS, pipeline operators developed COVID-19 related procedures to ensure that employees, including critical control room personnel, have the planning, resources, and technology needed to perform their duties. This includes utilizing backup control locations, alternating between locations, deep-cleaning procedures, and following management of change processes to ensure safe operations.

- “Embedded Management of Change principles in all facets of the organization (Construction, Operations, Maintenance, Engineering, Compliance, Gas Control, Gas Systems Planning, etc.) to ensure notification and feedback creates an awareness of process-oriented changes.”
- *Natural Gas Transmission Pipeline Operator*
- “Since we have been more isolated at an individual level, we have implemented a written Management of Change process for system changes. We plan to continue to grow the use of written MOC documentation.”
- *Natural Gas Distribution Pipeline Operator*
- “Establishment and enhancement of contractor portal that contains access to company procedures, safety resources, and will soon include OQ contractor resources as well.”
- *Natural Gas Distribution Pipeline Operator*



INCIDENT INVESTIGATION, EVALUATION, AND LESSONS LEARNED

Pipeline operators are regularly collaborating to share their experiences and provide lessons learned to their peers. Sharing examples include strategies to split shift and sequester vital personnel, obtain personal protective equipment for their employees, and safely begin the return to workplace. Last year, one operator discussed an incident they had experienced with a similar peer.

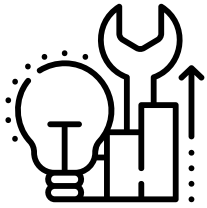
The peer shared lessons learned and best practices in responding to the incident and adjusting the management system to prevent similar incidents from occurring in the future.



SAFETY ASSURANCE

While safety culture is not a discrete element of PSMS, an effective PSMS cannot exist without a robust and positive safety culture. With employees and contractors working remotely, an operator’s safety culture, where each employee feels responsible and connected for public safety, environmental protection, and personnel safety, is paramount.

- “Continue efforts to measure safety culture through virtual site visits, protecting personnel during the COVID-19 pandemic, using tools already in place to collaborate with sites virtually, including iPhones, Body Harness and Zoom meetings. {Our company conducted} Internal Operations Integrity and Safety Assessments, including virtual site visits to observe field activities” and measure Behavioral Based Safety Observations.
- *Liquids Pipeline Operator*
- “Company has put together a PSMS Champions team. This team represents both operational and corporate activities and has been instrumental in realizing a huge growth in overall PSMS knowledge and enhancement of company Safety Culture.”
- *Natural Gas Distribution Pipeline Operator*



MANAGEMENT REVIEW AND CONTINUOUS IMPROVEMENT

A foundational tenet of PSMS is managing key performance indicators (KPIs) and the Plan-Do-Check-Act cycle to continually improve pipeline, personnel, and public safety, even during global pandemics.

- “We continue to review and improve the management system through periodic Senior management reviews and the implementation of new initiatives that were formed from the inputs of internal and external assessments, notably the ‘Management of Change specification’ and ‘PSMS online class.’”

- Natural Gas Distribution Pipeline Operator



EMERGENCY PREPAREDNESS & RESPONSE

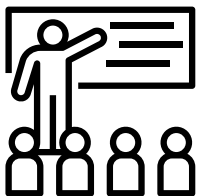
Pipeline operators had to quickly adapt traditional Emergency Response Plans and contingency guidelines to include the latest COVID-19 protocols. Additionally, companies stood up Incident or Unified Command Systems to appropriately manage risk, allocate resources, and operate safely during pandemic response.

- “This year despite COVID-19, we were able to conduct an emergency response exercise using emergency response software and GoToMeeting to follow all CDC guidelines while still conducting a successful exercise.”

- Liquids Pipeline Operator

- “One of the early identified opportunities for improvement (2016) was to update our Emergency Preparedness and Response Plans as well as our Business Continuity Plan to include responding to a pandemic. We were able to fully implement the plans without disruption or additional risk to our operations during the COVID-19 pandemic. The policies have been adjusted according to lessons learned from the pandemic response.”

- Liquids Pipeline Operator



COMPETENCE, AWARENESS, AND TRAINING

While managing operator and contractor qualifications during social distancing and remote environments proved to be a challenge, operators adapted using PSMS to ensure appropriate competencies and trainings. Companies developed plans to, and in some cases, retrained for Control Room personnel to fill vacancies; another provided ongoing Manager Training webinars to help manage employees during 2020. To maintain their workforce, another company transitioned hiring and interview processes completely to virtual options.



DOCUMENTATION AND RECORD KEEPING

Pipeline operators are documenting the actions they are taking to continue operating and doing so safely while in some cases deviating from normal procedures. Employees can access information and databases while working remotely. During the pandemic, one operator took the opportunity to conduct an employee survey measuring any gaps between written, paper processes and implementation practices among employees, developing action plans to close any gaps.

- “Transitioned from paper to electronic reporting of pipeline damages over the past 2 years (Plan, Do). Implemented quality control and quality assurance measures to review and trend data looking for improvement opportunities (Check, Act).”

- Natural Gas Distribution Pipeline Operator

PSMS IMPLEMENTATION BEST PRACTICES

OPPORTUNITIES TO OVERCOME IMPLEMENTATION BARRIERS

The Industry Team uses the annual SMS survey to identify implementation barriers. With these barriers identified, the Industry Team can prioritize the development of tools and trainings to overcome these barriers and help operators take the first steps on their SMS journey. Barriers identified by 2020 survey respondents included:

- Understanding the requirements of each element
- Finite time, resources, and staff to commit to and implement SMS
- Have not completed an in-depth gap assessment to date
- Staff reductions due to market downturn during COVID-19
- Need for support and suggestions for smaller companies and departments
- Integrating SMS into existing systems and programs, like Distribution Integrity Management Program (DIMP)
- Absence of more company-specific key performance metrics

PERSPECTIVES ON IMPLEMENTATION CHALLENGES

- “We are challenged to keep the approach “real”, that is, in terms all employees can relate to rather than just the Leadership teams. Advancing SMS maturity this year was significantly complicated due to the pandemic.”

- Liquids Pipeline Operator

- “In our organization the individuals responsible for PSMS implementation are also responsible for our Pandemic planning and COVID-19 response. We are also still building our team that will be responsible for PSMS administration.”

- Natural Gas Distribution Pipeline Operator

- “Work had to be done prior to implementation, such as formalizing our policy, goals, objectives, creating a communications plan for rollout and creating a way to track goals for the element owners. We wanted to make sure that foundation work was done before rolling out our program.”

- Natural Gas Distribution Pipeline Operator

IMPLEMENTATION BEST PRACTICES

INTEGRATING EXISTING SYSTEMS

- A small pipeline operator found approaching all ten SMS program elements at once to be overwhelming. Instead, the operator broke the elements into pieces and developed work teams with help from other business units to spread the workload.

- “The program is an effective way to identify and measure areas of improvement. Our belief is that this can be integrated within existing programs at a low cost of administration provided appropriate leadership support within the organization and willingness to focus on the highest priorities.”

- Natural Gas Distribution Pipeline Operator

LEARNING FROM OTHERS

- Others have started their SMS implementation and are joining efforts from industry peers, such as the Northeast Gas Association’s work around SMS.
- “Drawing on the experiences and knowledge of other operators has been a great tool in developing a management system.”

-Natural Gas Distribution Pipeline Operator

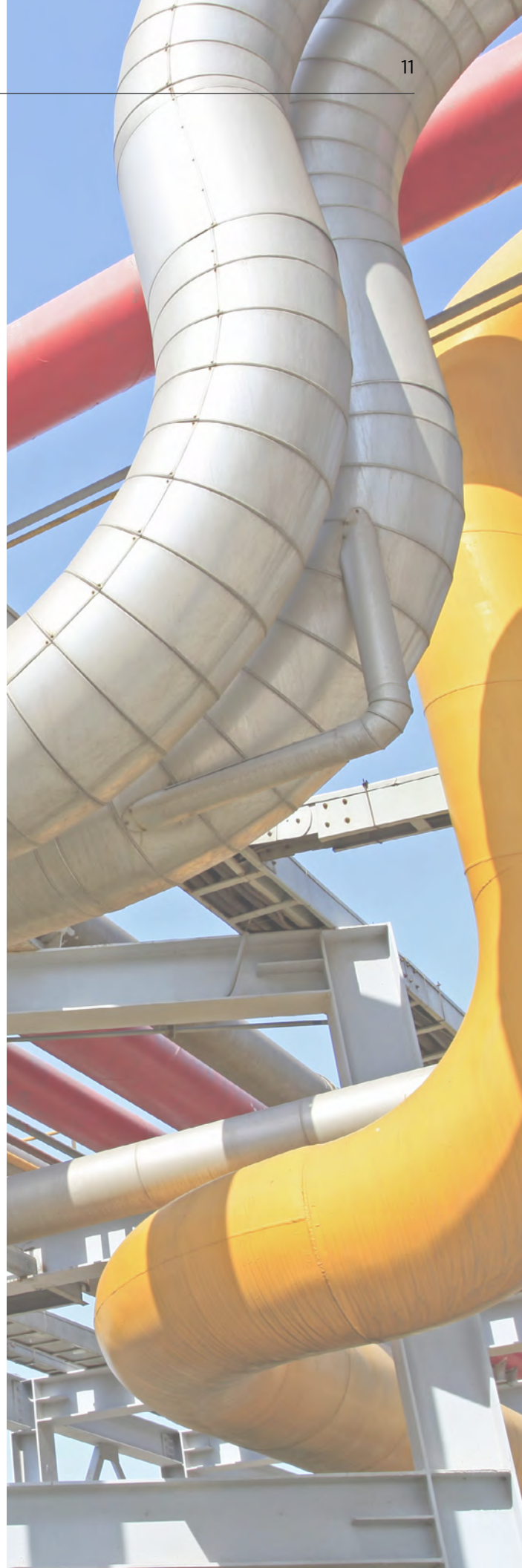
UTILIZING IMPLEMENTATION TOOLS

- Another operator has conducted a gap assessment in one state and identified the gaps and improvement opportunities from the assessment; their experience in one state will be used to guide upcoming efforts in other states.
- Implementation Tools used to assess SMS maturity included: Company-specific gap assessment tools, Internal Operations Integrity & Safety Assessments, Industry Team Implementation Tools, and tools from external consultants and industry peer groups.
- “We had to re-tool our initial approach with some internal changes within the company. We reorganized the team, and our approach and now we have a clear path forward, have identified 10 program element leaders and are starting a detailed review of the gap analysis, with the right people in the room.”

-Natural Gas Transmission Pipeline Operator

- “We identified and tasked owners to identify each of the 71 requirements. If requirements were identified to be a maturity level less than 3, the requirement owner created a gap closure plan.”

- Natural Gas Distribution Pipeline Operator



API PIPELINE SMS THIRD-PARTY ASSESSMENT PROGRAM

API formally launched the Pipeline SMS Third-Party Assessment Program on January 1, 2020 as a tool to assist operators with measuring progress and the maturity of safety systems, and to facilitate identification of good practices and information sharing across the pipeline industry. The assessment program utilizes the industry tools created by the PSMS Industry Team, allowing for seamless integration of the assessment program with the rest of the PSMS efforts.

Following its launch, API quickly adapted to the rapidly changing COVID-19 outbreak and adjusted the program to ensure that interested parties could still pursue an assessment safely. API conducted two assessments virtually in 2020, with our experienced assessors interviewing key subject matter experts remotely through virtual platforms. We saw success with the approach and are continuing to conduct assessments both virtually and in-person, depending on the needs and requirements of individual operators. As with any assessment, the API assessment program staff work with the operators to develop an assessment plan that works for both their teams and API's assessors, while keeping everyone safe.

Conducting an API Pipeline SMS Third-Party Assessment can help operators overcome some of the barriers to PSMS implementation, like conducting an in-depth gap assessment or understanding the requirements of each element.





Pipeline SMS Assessment Program

EXPANDING OUR ASSESSOR POOL:

The key to the success of the program is our PSMS assessor expertise. As we launched the program, API focused on growing our best-in-class assessor pool. Since the program's formal launch in January 2020, API has expanded the number of assessors by 77%, adding significant expertise and experience to support industry's growing needs for assessments. Among those added are safety management system experts and retired pipeline executives with extensive experience implementing SMS programs. All PSMS assessors complete API assessor training, ensuring that they are knowledgeable with API's requirements and approach to conducting an assessment. The training also focuses on utilizing the assessment tools developed in coordination with the Industry Team to ensure an efficient and consistent assessment experience.

These additions and enhancements to the assessor pool contribute to API's primary goals for the Pipeline SMS Third-Party Assessment Program – to aid operators in their API RP 1173 implementation journeys, encourage good-practice sharing, and sharing implementation expertise as part of an assessment.

BENCHMARKING:

As identified by the PSMS Industry Team, a key part of this assessment program is allowing operators to benchmark themselves and their business units against themselves and their peers. The assessment program successfully established a benchmarking system in 2020, with operators receiving blinded benchmarking data following their participation in an assessment. As the program conducts more assessments, participating operators will be provided with a more granular benchmarking report.

2021 AND BEYOND:

API continues to market the Pipeline SMS Third-Party Assessment Program at industry events both domestically and internationally. To date, there has been significant international interest in the program, including in South America and the Middle East. To continue to drive this interest, in addition to participating in global conferences and forums, API conducts webinars and partners with organizations to produce webinars discussing the program as well as API RP 1173 and its connection to the assessment program.

In 2021, API will continue these efforts to create awareness in the U.S. and globally, reinforcing its value to program participants and the PSMS Industry Team. The program will also continue to conduct program reviews, aligning with the PDCA cycle to ensure this industry tool continues to provide value by making necessary improvements as they are identified.

If your company is interested in discussing the PSMS Third-Party Assessment Program and how it can help you overcome barriers in implementing PSMS, or if you would like to schedule an assessment, please reach out to

PipelineSMS@api.org.

APGA PSMS VIRTUAL WORKSHOP SERIES

In 2020, the American Public Gas Association (APGA) began offering a [*PSMS Virtual Workshop Series*](#) for APGA members. Participants met in small groups once a month for three months. Upon completing the series, participants:

- Better understand PSMS and its elements
- Completed a PSMS gap analysis designed specifically for public gas systems
- Heard other public gas system's solutions for PSMS gaps
- Began developing an action plan and prioritizing for gaps identified
- Begin identifying Key Performance Indicators for their system's PSMS journey

38 APGA members have either started or fully completed the series. APGA will continue offering the workshop series to its members throughout 2021.



“The APGA PSMS Workshop Series provided valuable resources, tools, and peer discussion to guide our utility into PSMS development. The workshop sessions helped identify the different aspects of PSMS and practical ways to identify and implement a plan for our system. A PSMS Planning/Gap Analysis Tool was also utilized with the workshop series and provided a great look into where we as a utility currently stand with our PSMS and identified the gaps for future planning and implementation. Our system is extremely grateful that the APGA provided this series and is helping utilities to become more organized and intentional with their safety management through the creation of a PSMS.”

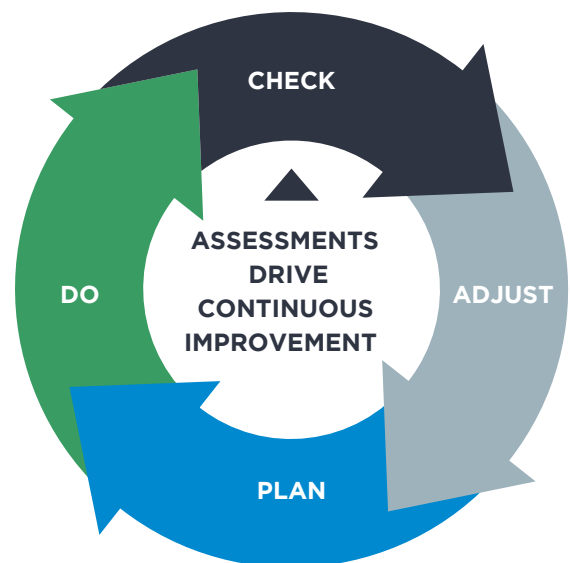
- Darin Yusi, Gas Engineer – City of Ellensburg, WA



“No matter where you are on your journey, the PSMS workshop series created a stress free learning environment for natural gas providers of various sizes to share ideas and possible solutions with the goal to start or move forward in PSMS. The assignments were tailored to our utility and used a crawl, walk, run approach to understand the elements, determine where our gaps are, and develop and execute a plan. This workshop promoted communication among varying levels of employees at KUB to create company-wide natural gas safety initiatives and enhance processes to make our natural gas system safer for our employees and community.”

- KUB Workshop Participants

Safety Assurance Audits and Evaluations Performance Measures, KPIs



AGA PSMS IMPLEMENTATION EFFORTS

The American Gas Association (AGA) continues to develop and enhance efforts to help its members further their implementation of PSMS. In December 2020, AGA launched a pilot program to perform virtual assessments of 13 different operators' PSMS programs. The participating companies are dedicating resources to strengthen their own PSMS and to assist AGA in advancing the PSMS of other participating companies. AGA's pilot program focuses on the implementation of Element 5 "Incident Investigation, Evaluation and Lessons Learned" and Element 9 "Competence, Awareness, and Training". Southwest Gas Corporation was assessed on their implementation of Element 5 last year. Thus far, two AGA members have completed virtual assessments on their implementation of Element 5 and two AGA members have completed assessment on Element 9.



SOUTHWEST GAS

"The virtual assessment proved to be an effective method for reinforcing what we are doing well, helping us ensure we are on the right path, and providing us with considerations to strengthen our current policies, procedures, and practices; we believe that it is an effective tool for continually


improving target areas. It also allows us to continue to engage with our peers within AGA and provides a venue to exchange information and learnings that help us achieve operational excellence. We are very supportive of the virtual assessment program and have offered six employees to be a member of future AGA review teams to be conducted this year,” said Eric DeBonis, Senior Vice President of Operations at Southwest Gas Corp.

When the pilot is completed in early July, AGA will work with its Board of Directors to determine if the virtual assessments should be continued with the involvement of other AGA member companies.

Additionally, AGA’s Board also approved the creation of a PSMS Executive Steering Committee and an Operational Risk Data Committee (ORDC), which will holistically look at data shared voluntarily by operators to help identify potential trends. Initially, AGA will review PHMSA incident data for potential trends, and then during Phase 2, will ask operators to voluntarily provide data for near misses or events that do not meet PHMSA’s reporting threshold. These initiatives are intended to help assist the industry in advancing PSMS.



OCTOBER VIRTUAL WORKSHOP SERIES



As part of the continuing efforts to improve and share information on Pipeline SMS, API hosted daily, two-hour webinars between October 5 - 8 that provided attendees with an opportunity to exchange information on Pipeline SMS with and learn from their peers. The program's keynote was provided by Pipeline and Hazardous Material Safety Administration head Skip Elliott who, in his remarks, stressed the agency's continued commitment to SMS and support for the API program. Industry Team Chair and Colonial Pipeline's Angie Kolar also provided introductory remarks to participants.

Each of that week's webinars featured between 150-200 attendees with sessions focusing on five key Pipeline SMS elements including Operational Controls, Stakeholder Engagement, Documentation & Record Keeping, Risk Management and Management Review & Continuous Improvement. Despite being held virtually, the Industry Team was pleased that the webinar series proved to be so valuable to the many hundreds of representatives from both industry and the public sector who were looking to increase their understanding and/or implementation of Pipeline SMS. Presenters came from each segment of the pipeline industry, as well as contractor representatives.

In post-workshop surveys, the vast majority of participants said that the virtual workshop met or exceeded their expectations and they had learned from the presenters. Additionally, a number of the presentations were posted on www.PipelineSMS.org to encourage sharing and learning between operators all along the implementation journey.

API/AOPL SAFETY CULTURE SURVEY

The importance of safety culture is intertwined throughout RP 1173, with the RP going so far as to say, “an effective PSMS cannot exist without a positive safety culture.” While it does not have a dedicated Program Element, the importance of a robust safety culture is explicit to ensure positive attitudes towards compliance, feeling responsible for public and environmental safety, and reporting opportunities for improvement. Additionally, research has shown that safety culture can forecast incident and injury rates for a company.

Recognizing its importance, eight liquid pipeline operators conducted their first safety culture survey in 2020. While originally planned for the spring, API/AOPL delayed the survey field date due to COVID-19 response until this fall, with the survey conducted between September 1 and October 13. INGAA and CEPA members have participated in the survey, which is conducted through a partnership between CultureIQ, P-PIC, and the University of Houston, for nearly a decade; for liquid operators, participating in 2020 gives them the ability to join INGAA/CEPA's next cycle, track performance over time, and benchmark against peers.

The survey achieved a nearly 80% response rate with over 7,400 responses from employees, their direct supervisors and top management. The survey ties each of its 84 questions to a particular PSMS Program Element, so participants can identify areas for improvements directly in line with their implementation journeys. Based on company results, operators can develop action plans on how the organization can improve and close perceived culture gaps, following PSMS's Plan-Do-Check-Adjust cycle.

Following the survey itself, API/AOPL hosted a Virtual Pipeline Safety Culture Workshop on November 19. The workshop highlighted the survey results, in particular how senior leadership's everyday commitment to public safety in a demonstrable and frequent fashion was one of the most influential drivers of PSMS awareness among field employees. Two pipeline operators also presented on their companies' plans to use the results to close gaps, strengthen culture, and improve safety performance. Liquid operators are looking forward to joining forces with INGAA/CEPA members during their next survey cycle in the continuous improvement journey of SMS implementation.

A PROACTIVE AND MEASURED APPROACH



Safety Culture Surveys

Review company scores, comparing against benchmarks, internal hierarchy structure.



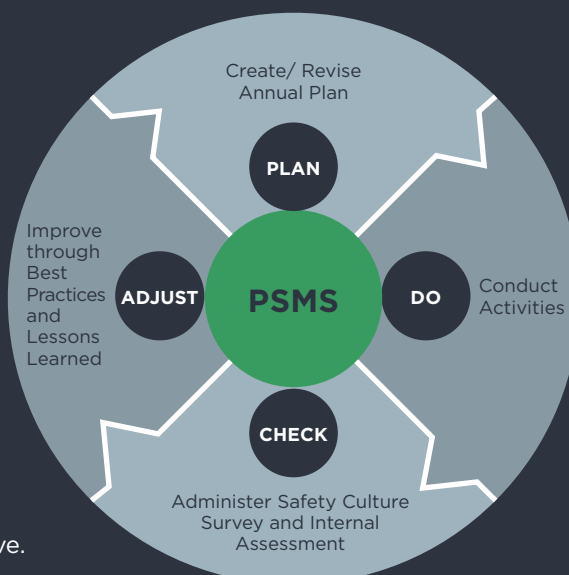
Company Assessments

Determine areas where scores were more favorable and identify leading practices that could be used in other parts of the organization.



Action Planning

Based on company assessments, develop interventions on how the organization can improve.



2020 ANNUAL SURVEY RESULTS

Pipeline operators representing more than half the pipeline industry responded to the 2020 Annual Survey. The survey results showed significant implementation progress in 2020 despite historic challenges and obstacles, including percent increases in companies who achieved leadership commitments, as well as those who conducted gap assessments and management reviews.



+9%

Leadership Commitment



+22%

Safety Culture Surveys



+26%

Gap Assessments



+24%

Closure Plans



+24%

Maintaining SMS Maturity Method



+21%

Established & Conducted Internal Management Review



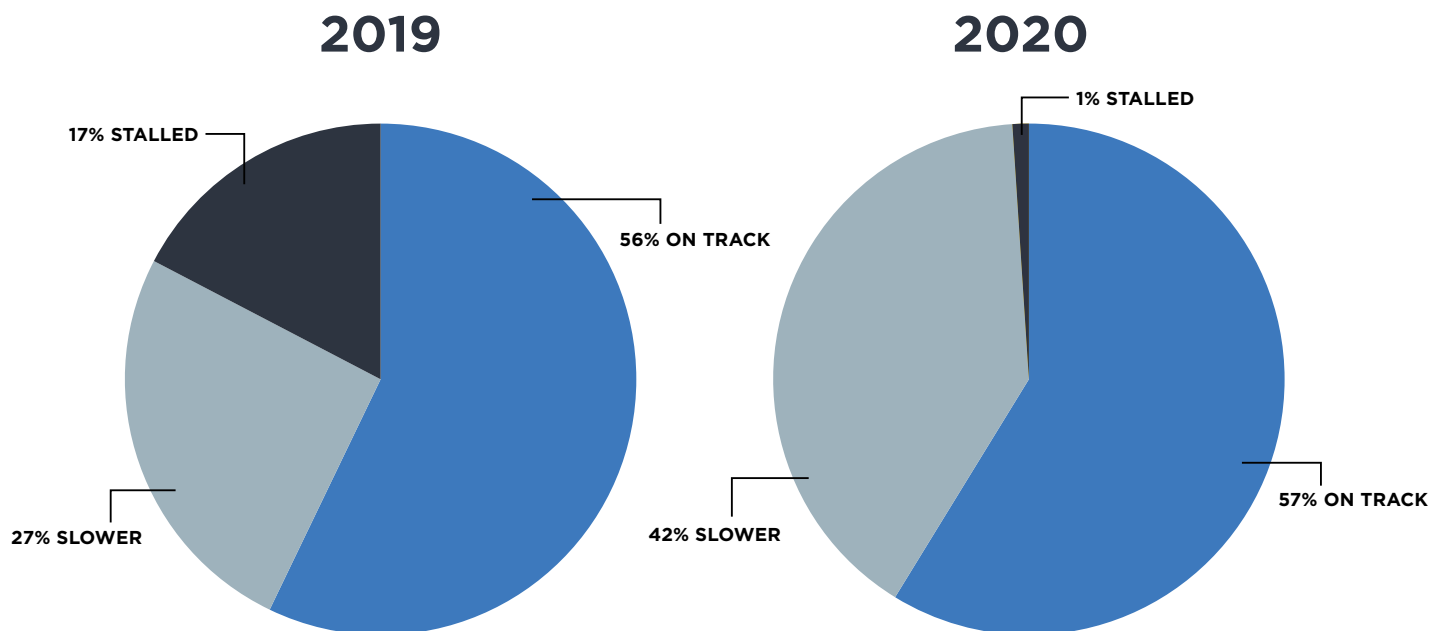
+14%

External Sharing Events

IMPLEMENTATION PROGRESS

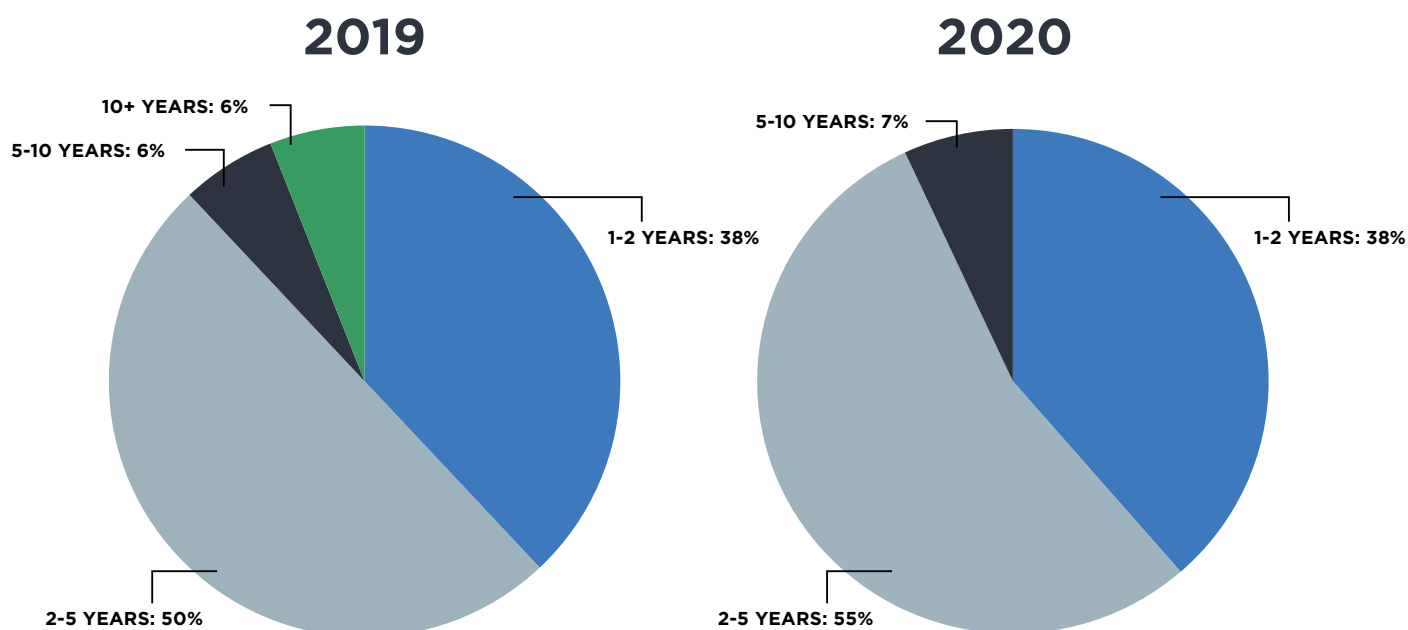
OPERATOR PROGRESS

Despite historic challenges of 2020, operators have moved stalled programs forward to continually make progress



CLOSING GAPS SOONER

Industry's journey is progressing. There is a tangible shift in the timeline for closing gaps from 10+ to 5-10 years and 2-5 years



IN 2020, COMPANIES WERE MOST FOCUSED ON IMPLEMENTING:

1. Risk Management
2. Documentation & Record Keeping
3. Operational Controls
4. Incident Investigation, Evaluation & Lessons Learned
5. Leadership & Management Commitment

THE MOST CHALLENGING ELEMENTS TO IMPLEMENT WERE:

1. Operational Controls
2. Documentation & Record Keeping
3. Risk Management
4. Stakeholder Engagement
5. Management Review & Continuous Improvement



TIMELINE FOR RP 1173

Identification and collection of proposed revisions to the first edition of API RP 1173 is the main focus in 2021.

STANDARDS ACTION REQUIRED JULY 2022

- The Voting Group will determine the next standards actions for RP 1173 in 2022, including a five-year reaffirmation of the current edition and/or future revision

VOTING GROUP 2021-2022

- Establish Voting Group with a balance of interests/stakeholders represented
- Votes on proposed actions to RP 1173 recommended by the Group

STANDARDS POLICY GROUP 2021 - 2022

- Reports to Industry Team SMS Steering Committee
- Identifies and collects proposed updates to the first edition

EXTENSION GRANTED JULY 2020

- Under API/ANSI requirements, RP 1173 was due for 'standards action' by July 2020
- API Committee on Pipeline Standards (COPS) granted extension to July 2022

RP 1173 PUBLISHED JULY 2015

- API published RP 1173 in July 2015, after more than one year in development

2021 FOCUS AREAS



IN 2021

The Industry Team will continue to drive implementation progress through its four focus areas: increase industry participation, ensure proactive external engagement, support operator journeys, and ensure governance and oversight.



Increase Industry Participation

- Conduct 2021 Annual Survey
- Identify Barriers to Implementation & Workarounds
- Engage regional trade associations supporting PSMS implementation
- Expand list of stakeholders and establish alliances with other industry groups working on PSMS



Ensure Proactive External Engagement

- Publish 2020 Annual Report
- Engage with PHMSA, NTSB, and pipeline public safety groups
- Disseminate quarterly newsletter & maintain www.PipelineSMS.org



Support Ongoing Operator Journeys

- Prepare for next Safety Culture Survey with liquid & gas operators
- Continually improve API Pipeline SMS Third-Party Assessment Program for operators
- Host webinars and trainings, and develop implementation tools & briefs, including contractor management



Provide Governance & Oversight

- Support review of RP 1173, first edition, by Standards Policy Group
- Track Industry Team key performance indicators
- Provide strategic direction through PSMS Steering Committee



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