



# 2024

## ANNUAL REPORT



**Pipeline SMS**





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### GETTING YOUR PSMS JOURNEY STARTED



Pipeline operators remain committed to implementing API Recommended Practice (RP) 1173, *Pipeline Safety Management Systems (Pipeline SMS)*, since its initial publication in 2015. Pipeline SMS implementation has expanded beyond liquid operators to include gas distribution, transmission and gathering operators, as well as the contractor community, all in the shared goal of operating with zero incidents on a voluntary basis. The Pipeline SMS Industry Team (Team) represents all segments of the pipeline industry and helps drive implementation priorities and activities.

In 2024, the Team continued revisions on the first edition of RP 1173, rolled out a contractor assessment program, surveyed operator and contractor implementation progress and many more critical activities to support continuous improvements towards the vision of **“One Industry, One Goal, Zero Incidents.”**









In looking back on my time as the Chair of the Pipeline Safety Management Systems (PSMS) Industry Team, I am honored to have learned from and served alongside remarkable industry leaders in the critical mission of improving pipeline safety for the entire industry through PSMS implementation.

The Industry Team's achievements in 2024 are a great testament to the foundational commitment to pipeline safety it continues to embody. I am proud of the momentum gained in our goals that helped achieve step changes as a convenor and collaborator for pipeline safety. The Team continues to partner with governmental organizations, encouraging distribution operators to respond to PHMSA's Request for Information, serving as a point of contact for NTSB conferences, and engaging NAPSIR representatives on PSMS implementation progress for the first time.

Additionally, through API, the Team supported the development of contractor implementation tools and the launch of the PSMS Contractor Safety Assessment Program to help meet both contractor needs and operator priorities for implementation. The Operator Assessment Program has now reached 32% of all crude transported and 23% of all refined products transported in the US. The contractor offering will align these important service providers with operator requirements while avoiding duplication.

The Team also made great strides on the critically important work of revising the 1st edition of RP 1173, including the development of an annex for very small operators following PHMSA's recommendation for a "size-scaled" approach to PSMS implementation. The 2nd edition will maintain the RP's framework for establishing and implementing PSMS while also providing the characteristics of a healthy safety culture and aligning with public engagement guidance (RP 1185).

While we've made significant progress in 2024, there is always more work to be done in the ongoing pursuit of continuous improvement. Smaller operators continue to be encouraged to start their journeys while larger operators should mature their systems to demonstrate proactive and voluntary progress. Operators should continue integrating their PSMS expectations with contractors in the pursuit of the Industry Team's mantra of "One Industry, One Goal, Zero Incidents." With that in mind, I am excited to welcome Jesus Soto as the first contractor to serve as Industry Team Chair, demonstrating this Team's role as convenor and change maker in the industry's PSMS implementation journey.

## GIORGINA FRANKLIN

**General Manager, Natural Gas Pipeline Safety (Retired)**  
**Duke Energy & Piedmont Natural Gas**

*Outgoing Pipeline SMS Team Chair*



Thank you to Giorgina Franklin for her steadfast leadership of the PSMS Team throughout 2024 in supporting our common mission of “One Industry, One Goal, Zero Incidents.” It has been a valuable experience participating on the Team for many years, and now I am honored to help lead this critical journey with operators and contractors side by side.

RP 1173 was written by pipeline operators for pipeline operators. Its applicability first focused on transmission pipelines, then expanding to include both distribution and gathering lines as part of a united effort to improve pipeline safety performance. Contractors joined the Team shortly thereafter. At times, contractors can be an overlooked piece of the workforce when it comes to operator qualifications or management system implementation. Operators often implement required training or qualifications for their workforce, forcing contractors to maintain unique qualifications for each operator that it does work for and creating a patchwork of requirements.

Recognizing this trend, the contractor community and API published [PSMS: A Contractor's Guide](#) in 2022 that distilled the RP's requirements into key statements applicable for contractors. The guide helps contractors focus their efforts to better align with operators' PSMS expectations while avoiding varying requirements per operator. Similarly, the [PSMS Contractor Implementation Tool](#) assists contractors and service providers in planning PSMS implementation, gauging implementation progress and measuring the maturity of their safety programs.

In 2024, API and the Team rolled out the PSMS Contractor Safety Assessment Program as a contractor-specific counterpart to the Operator Assessment Program launched in 2020. The program conducted pilots in the winter and spring to improve the process before hosting several assessments later in the year. The Contractor Program provides contractors with access to experienced safety professionals who offer valuable feedback on PSMS implementation, promoting greater alignment with operators. The Team also rolled out a computer-based training specifically for contractors and field personnel to help them connect PSMS implementation with their role.

I am proud to be part of such a Team that invites participation and collaboration from related stakeholders in the common pursuit of improved safety performance. With this inclusive approach, combined with the tools and training now available, I believe PSMS implementation is having a positive impact. Total pipeline incidents have fallen 13% between 2024 and 2015, when RP 1173 was first published, despite additional reporting mileage and increasing energy demands. The industry is not satisfied with these results, with this Annual Report demonstrating our continued efforts to revise RP 1173, provide tools and training, improve culture and more. With this committed approach and unified efforts on implementation, PSMS can continue to improve pipeline safety performance and better protect the workforce, public and environment.

## JESUS SOTO

Executive Vice President, Utility Performance Solutions  
Quanta Services, Inc.

*Incoming Pipeline SMS Team Chair*







The PSMS Industry Team conducted numerous activities and supported many others throughout 2024 to facilitate industry understanding and implementation of RP 1173. The Team focused specifically on four key areas to support operator journeys:

### **PROVIDING OPERATOR & CONTRACTOR SUPPORT**

- Rolled out the API PSMS Contractor Safety Assessment Program following pilot assessments and program improvements in the winter and spring
- Conducted 11 API Pipeline SMS Third-Party Assessments, including among seven operators and four contractors
- Updated the benchmarking report among past participants for distribution, showing improvements in nine of the ten elements
- Surveyed over 12,000 pipeline contractor employees as part of the eighth safety culture survey iteration since 2013, and
- Finalized a computer-based training for field-level staff and contractors to help them understand and connect to their role in PSMS.

### **ENGAGING STAKEHOLDERS**

- Published the [2023 Annual Report](#) highlighting voluntary implementation progress and milestones while identifying challenges
- Briefed external stakeholders, including federal and state regulators and public safety advocates, on industry's commitment to PSMS
- Attended the Distribution Contractors Association annual conference and API Pipeline Conference to socialize leading practices in implementation and maturity growth, and
- Engaged PHMSA staff on fulfilling Section 205 mandates from the 2020 PIPES Act on gas distribution implementation progress and maturity.



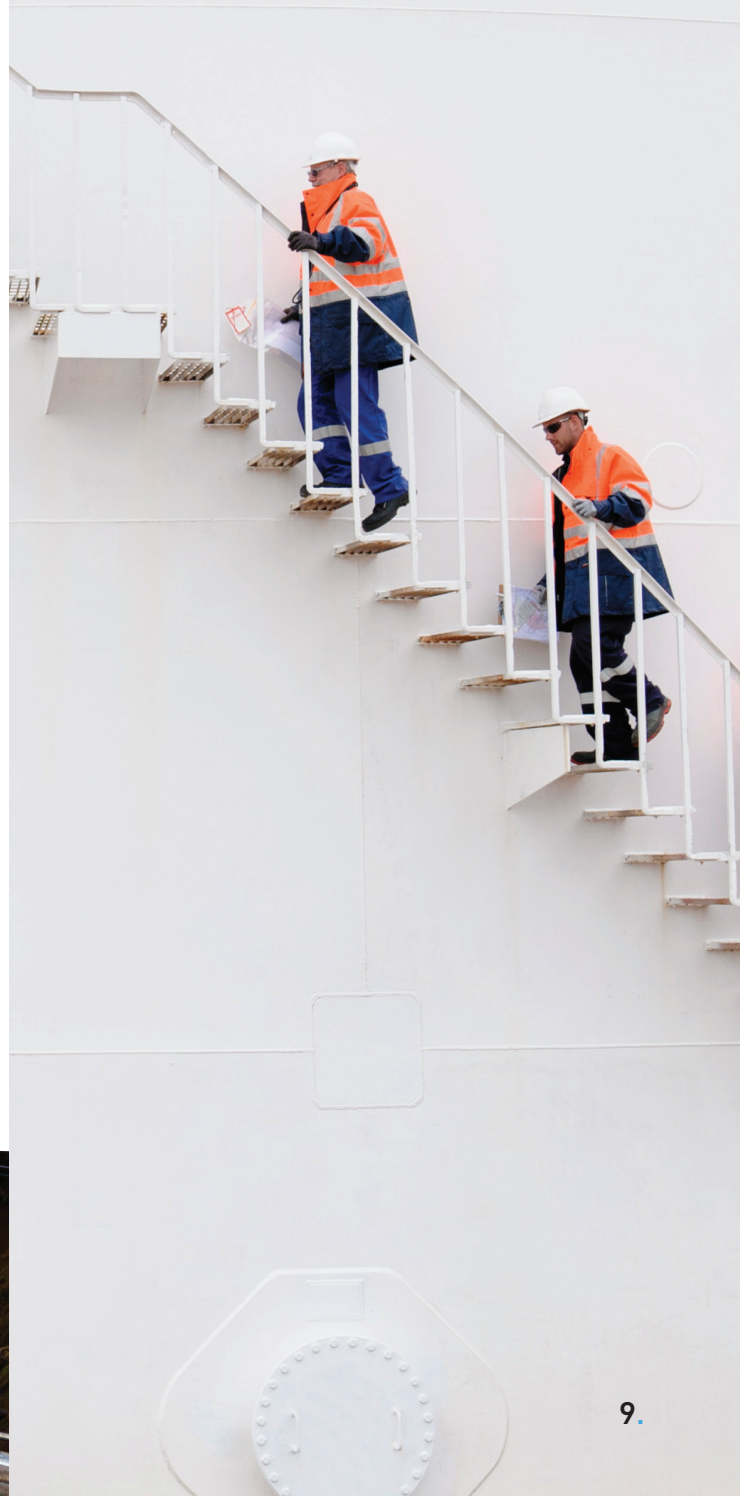


## INCREASING INDUSTRY PARTICIPATION

- Conducted the 2024 Annual Survey among distribution, transmission and gathering line operators, representing nearly 80% of mileage as implementing PSMS,
- Developed an annex for Very Small Operators to be included in API RP 1173, 2nd edition, targeted for publication in 2025 or early 2026,
- Conducted the AGA PSMS Workshop to socialize leading implementation practices,
- Socialized the NTSB Safety Alert and PHMSA PSMS recommendation to further encourage operators to start their implementation journeys.

## ENSURING GOVERNANCE & OVERSIGHT

- Continued monthly meetings of the RP 1173 Task Group to revise the 1st edition of RP 1173 with over 100 participants including operators, service providers, federal and state regulators and public safety advocates, and
- Hosted two in-person meetings to progress on industry priority issues and exchange practices among operators.









# API PIPELINE SMS ASSESSMENT PROGRAM UPDATES



**Pipeline SMS**  
Assessment Program

## INDUSTRY PARTICIPATION

API continues to support industry's implementation of Pipeline SMS and RP 1173. From large liquid operators to municipal gas distributors to their supporting contractors, API has now published a full suite of programmatic implementation support and assessment services – creating a unified approach across our nation's pipeline infrastructure.

New to API's suite of support are our newest API Pipeline Contractor Assessment offerings. These offerings follow the creation of [Pipeline SMS: A Contractor's Guide](#) and the [Contractor Implementation Tools](#), giving contracting companies a unified resource to assist in implementing their safety programs (all available for free on [www.pipelinesms.org](http://www.pipelinesms.org)). API has participated in several operator-led contractor safety summits, outlining the tools and assessments we have built. These tools and assessments help contractors understand the 56 requirements in RP 1173 that are relevant to contractor-led safety programs (as published in [Pipeline SMS: A Contractor's Guide](#)). These resources can help operators and contractors understand common objectives and ultimately collaborate more effectively to help keep people, our communities and the environment safe. API continues to highlight this work, in partnership with the Distribution Contractors Association (DCA), at events around the country. For more information about our tools and resources for contractors, please visit [www.pipelinesms.org](http://www.pipelinesms.org) or reach out to [PipelineSMS@api.org](mailto:PipelineSMS@api.org).

By the end of 2024, API had conducted 27 Pipeline SMS Assessments of 20 operators and 4 contractors, with 3 operators returning to API for repeat assessments. Figure 1 below shows operator assessments by type, year over year, since the API Pipeline SMS Assessment Program was created in 2020 (with two pilots conducted in 2019 prior to program rollout).



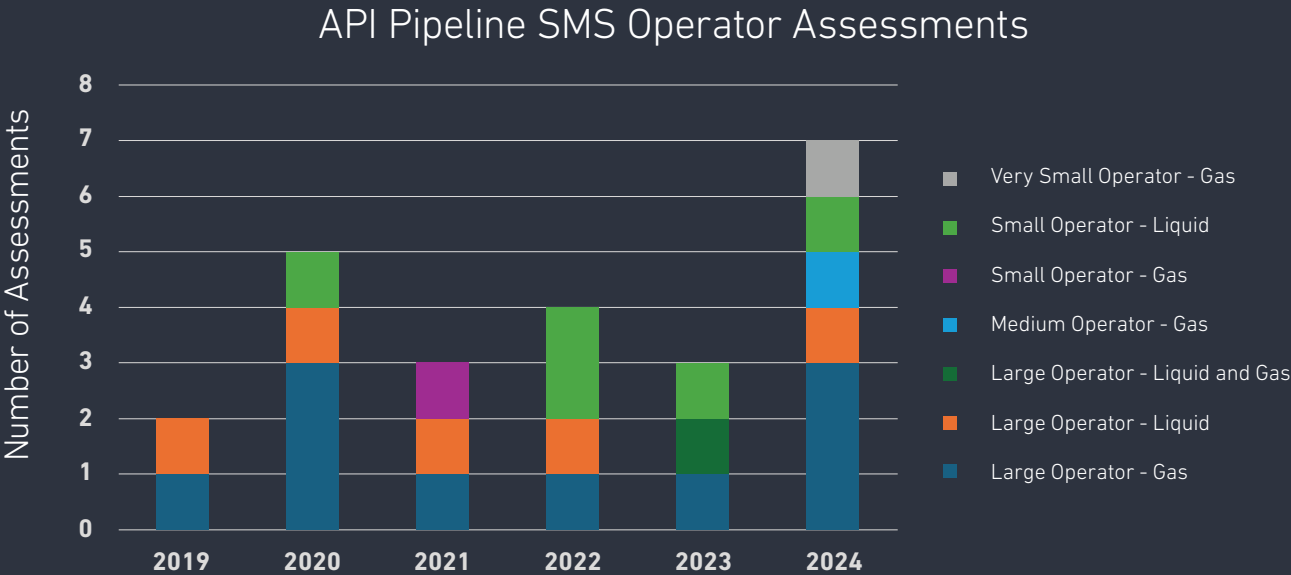


Figure 1. API Pipeline SMS Assessments by Year and by Type of Operator; Operator size determined by API Distinguished Pipeline Safety Award guidance.

API is encouraged by the expansion of interest in API Pipeline SMS Assessments, including operators and contractors of varying sizes and scopes of work. We foresee the program continuing to grow as both operators and contractors move to mature their programs. Recent NTSB recommendations and PHMSA Advisories reinforcing the importance of PSMS may encourage operators to continue implementation. API’s Statistics department has worked to understand the total proportion of US pipeline industry participation in the API Pipeline SMS Assessment Program. The 20 operators who have assessed their safety management system with us represent:

- 24% of PHMSA Hazardous Liquid bbl-mi
- 32% of FERC Crude bbls transported
- 23% of FERC Product bbls transported

API is encouraged that so much of the industry has decided to participate in this industry-leading assessment and benchmarking program. With more participants, the PSMS Industry Team will be able to make more informed decisions about future programming – all focused on ensuring operators have access to leading experts through the assessment program to aid in their maturity journeys.

## BENCHMARKING

Benchmarking is inherent with API's PSMS Assessment approach. For each like-in-kind group of requirements in RP 1173, our expert assessors evaluate maturity of an operator's PSMS using the RP 1173 Maturity Model, found on [pipelinesms.org](https://www.pipelinesms.org).

Average Conformance Maturity Scores by PSMS Element by Year (n=20)



While API acknowledges the improvements seen in average conformance maturity scoring in Figure 2 may be viewed as nominally small, context reveals a different story. The Team acknowledges that meaningful implementation of these systems takes years, not months, to complete. As we are near the tenth anniversary of the publication of the 1st edition of RP 1173, it is important to acknowledge that industry is already showing improvement just three years after starting to publish API PSMS Assessment average operator conformance data. Evidenced in Figure 2, API has seen average conformance numbers increase, both for first-time maturity assessments and for operators returning to API for repeated assessments. As operators repeat assessments with API, their previous maturity scores fall out of our database.

While we have not seen average conformance scores rise for all elements, API notes that some key elements (those viewed as mitigating a higher level of risk) have seen substantial increases in average conformance scoring:

- 1) Stakeholder Engagement (+0.19) – API published RP 1185, *Pipeline Public Engagement*
- 2) Risk Management (+0.07)
- 3) Safety Assurance (+0.16)
- 4) Emergency Preparedness and Response (+0.10)

Noting that a maturity of between 2 and 3 on the Industry Maturity Model represents the implementation phase, most operators are in the final phases of implementing RP 1173. Following implementation, operators use the plan-do-check-act model to continuously improve their safety performance. In 2025, API will continue to provide support for operators and contractors who are implementing RP 1173 principles. We anticipate a larger number of assessments as more operators return for repeated assessments and as the contractor community continues to become aware of the resources the Pipeline SMS Industry Team has created for their benefit.



# AGA PEER REVIEW UPDATES

AGA continues to promote the implementation of PSMS with the member companies and the Board commitment to achieve maturity level 3 by 2027.

## ENHANCED PEER REVIEW PROGRAM

This program allows natural gas utilities to evaluate their peers, share leading practices and identify opportunities to better serve customers and communities. Each review involves AGA staff and subject-matter experts (SMEs) from member utilities who are dedicated to helping the host utility improve. The Enhanced Peer Review Program includes the option for companies to have in-person peer reviews and/or virtual assessments. While every topic incorporates how they relate to RP 1173, operators can choose from the following topics focused on specific PSMS Elements:

### In-Person Peer Reviews:

- PSMS Elements 4/10: Operational Procedures/ System Controls; Documentation & Recordkeeping
- PSMS Elements 6/7: Safety Assurance; Management Review & Continuous Improvement

### Virtual Assessments:

- PSMS Element 4: Management of Change
- PSMS Element 5: Incident Investigation, Evaluation & Lessons Learned
- PSMS Element 6 & 7: Safety Assurance and Management Review
- PSMS Element 9: Competence, Awareness, & Training

Over 50 AGA member utilities participate in this voluntary program, which has been in place for over 10 years. SMEs from other gas utilities work together in providing a constructive critique of another company that has selected two or three topics to be featured. Interviews are conducted and information and company documents are reviewed during the week. At the conclusion, a written report is provided to the executives from the host gas company with a three-hour discussion that is focused exclusively on how the company can enhance its performance. AGA's Enhanced Peer Review Program is restricted to utility members only and the information is kept strictly confidential.

In 2025, a total of 12 peer reviews are scheduled, including two Peer Review topics specifically focused on Elements 6 & 7 and Elements 4 & 10. There are also two Virtual Assessments scheduled: Element 9 and Element 4, focused on Management of Change.

## ENHANCED PEER REVIEW PROGRAM

In the spirit of continuous improvement and PDCA, AGA decided to take a step back and assess the effectiveness of the PSMS groups.

AGA had two entities dedicated to PSMS. The first was the PSMS Executive Steering Committee, which, since its inception, has been a forum to help guide AGA in strategy and direction in how our industry should adopt PSMS. This group has been instrumental in sharing leading practices, lessons learned and event learnings. This group of industry leaders in PSMS at their respective companies have paved the way to our AGA Board's commitment of reaching a maturity level of 3 by 2027. The other group was the PSMS Discussion Group, which provided a forum for members to share leading practices, opportunities and resources on how they've executed on the 10 elements of RP 1173. Each discussion group has always concluded with great engagement, enthusiasm and Q&A.

It had made sense to have two separate groups, but as the industry evolves and begins maturing in the implementation of PSMS, it has become clear that it's time to merge strategy and execution together.

This group started meeting in 2025 on a monthly basis, sharing lessons learned and presentations on element specific topics.

## PSMS WORKSHOP

AGA will once again hold an annual PSMS Workshop this fall in conjunction with the AGA Fall Technical Committee Meetings.





# NORTHEAST GAS ASSOCIATION



## CONTINUING THE JOURNEY OF PSMS OPERATIONAL OWNERSHIP

The Northeast Gas Association is a regional trade association which serves more than 35 gas distribution organizations. The NGA focuses on safety, education, training, technology research and development, operations, planning and increasing public awareness of natural gas, including natural gas pipeline safety management systems within the northeast U.S. NGA represents gas distribution companies, transmission companies, liquefied and compressed natural gas suppliers, and associated member companies. NGA member companies provide natural gas services to over 13 million customers in 11 states (CT, MA, ME, NH, NJ, NY, PA, RI, VT, DE, and MD). NGA members comprise one of the largest PSMS implementation collaboratives in the country, with over 2,000 engagements with individual member employees and leading one of the nation's largest local distribution company-focused safety culture assessments. The collaborative continues to have a keen focus on integrated practical aspects of PSMS elements and principles into day-to-day operations.

In 2024, several initiatives were launched to foster PSMS implementation sustainability. These efforts included continuous improvement in true learning through sharing of members' "good catches and near misses" and building a lessons learned event warehouse that members can continually learn from. The Lessons Learned data capture system was constructed by collaborative members for collaborative members focused on the practical aspects of routine operations, including:

- ✓ Overpressure and/or Unintended Loss of Pressure
- ✓ Uprates
- ✓ Damage Prevention
- ✓ Plastic Pipe Joining / Fusion Workmanship
- ✓ Tools and Materials
- ✓ Welding Practices
- ✓ Excavation Safety
- ✓ Corrosion Control
- ✓ Customer Meter / Regulator Installation and Inspection
- ✓ Valve Operations
- ✓ Gate / Regulator Station Operation and Maintenance



Several RP 1173 element themes are embedded into these monthly 1-hour membership-wide event sharing experiences to encourage open sharing and learning from each other's experiences; ultimately the goal of the PSMS-based true learning program is to encourage an event-sharing culture and avoid potential incidents from ever occurring.

The collaborative has also taken the initiative to help influence pipeline safety behaviors focused on further embedding plan-do-check-act (PDCA) thinking in routine operations. This effort includes embedding an Intent-Based Leadership (IBL) approach to PSMS with front line supervision. IBL is a leadership framework that encourages operational ownership and, when applied to RP 1173 elements, drives front line supervisors to communicate elements of pipeline safety intent and purpose rather than giving detailed instructions. This approach to PSMS engagement emphasizes empowering teams by providing emphasis on direction and goals, while also granting autonomy in decision-making and safety ownership. The approach was embedded into operationalization-of-strategy tools including the PSMS Tactical Guides to further enhance a culture of learning, collaboration and innovation in adopting and living PSMS core elements, including PDCA, every day with every decision and action.

In June 2024, NGA launched the Pipeline Safety Management System (PSMS) Excellence in Safety Recognition Program. Through the program, NGA recognized member operating organizations and contractors that demonstrate innovative and exceptional approaches to implementing core PSMS principles. Unlike traditional safety recognition programs that are typically based on injury frequency rates, NGA recognized organizations that have taken unique approaches to fostering a culture of pipeline safety focused on safety management system operational excellence. The award specifically recognized those members who have demonstrated PSMS leadership and management commitment. With a focus on the scalability of PSMS principles, award recipients included four categories: small/municipal operators, medium operators, large operators and contractors. Recipients demonstrated how their approach to implementation of RP 1173 resulted in a positive impact on PSMS employee engagement, operational excellence and compliance conformance including incident prevention, emissions mitigation and overall safety culture.





# LINKEDIN GROUP

## JOIN THE GROUP!



Follow this link or scan the QR code to join:  
<https://www.linkedin.com/groups/8650649/>

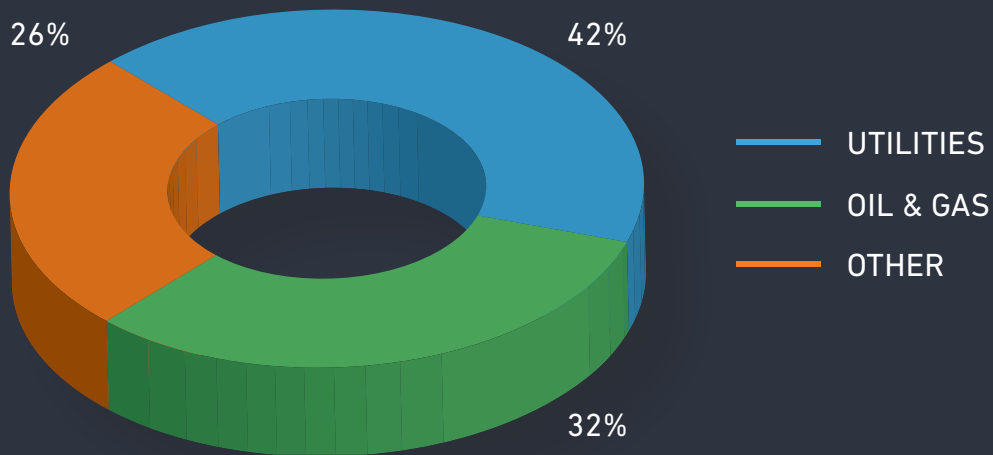
Founded in 2018, the PSMS LinkedIn Group is a community of practice focused on the implementation of RP 1173. Our members represent all corners of the utility sector and routinely work across the aisles with the common goals of advancing pipeline safety, nurturing transformative safety cultures and collaborating with all of our industry's stakeholders.

As RP 1173 turns 10 years old in 2025, engagement within the PSMS LinkedIn Group continues to rise. More PSMS experts, advocates and contributors continue to find their way to the group to share their unique perspectives, insights and industry contributions.

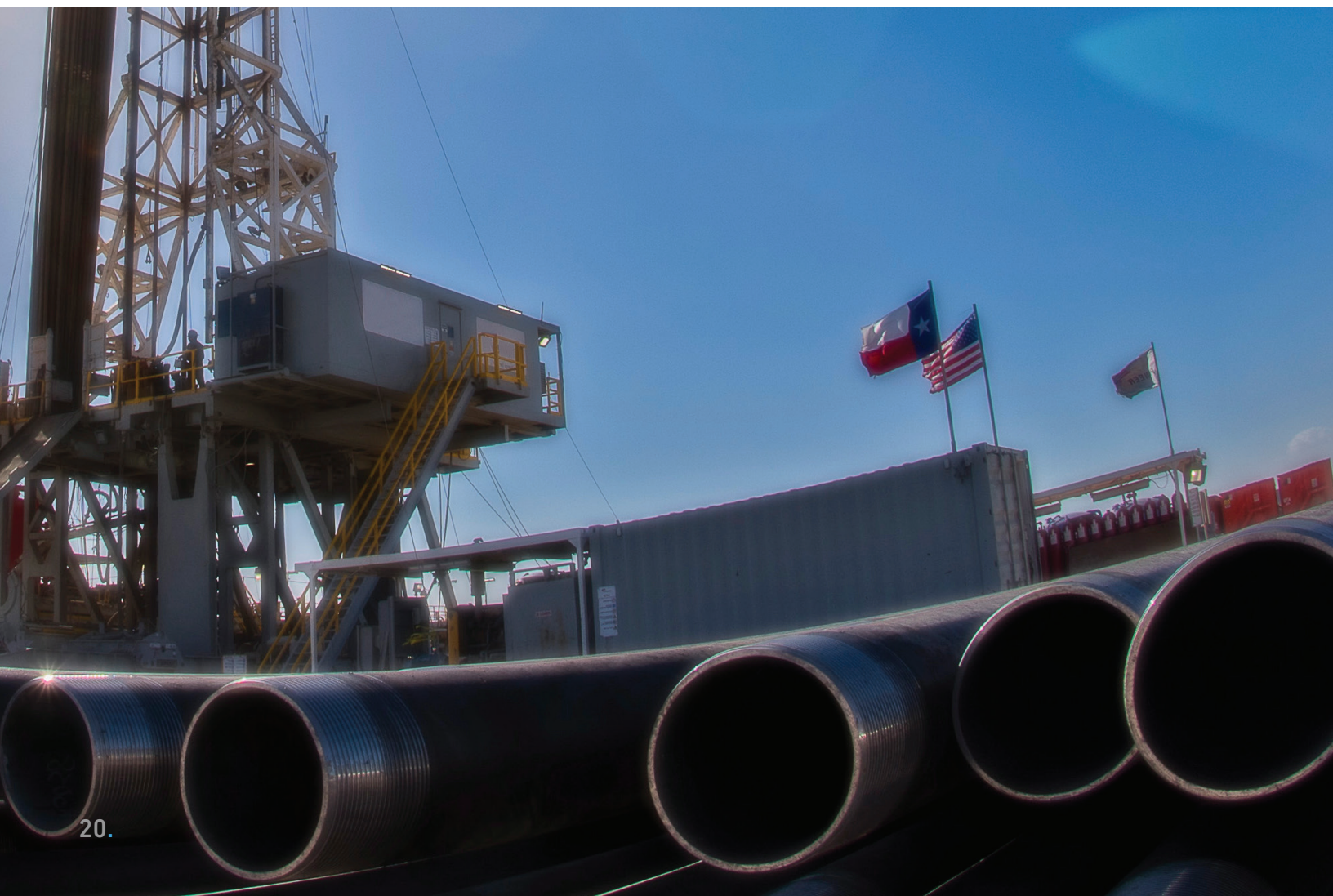
As of April 2025, the group has over 2800 members with a goal of exceeding 3000 by the end of the year. The PSMS LinkedIn Group provides the following five FREE value channels:

- 
- **Table Events:** This is our main offering and most often involves subject-matter experts from all parts of the industry presenting on their journey to implement PSMS.
  - **Pop-Up Workshops:** Our workshops are typically shorter, educational workshop style events designed to deliver practical tips and tools in a straight-forward format.
  - **The Practice Exchange:** A first-of-its-kind opportunity for any organization on the PSMS implementation journey to engage with a panel of some of the industry's top thought leaders (in a public or private virtual session) and receive feedback that is fit for their organization's purpose.
  - **Group Discussion:** Members share their thoughts, ideas and opinions in the group discussion channel and engage around a number of topics.
  - **Offline Engagement:** Members often make connections with other professionals in the group channel and then carry on more targeted conversations offline. We continue to hear success stories of how operator and contractor members met subject-matter experts in the PSMS LinkedIn Group.

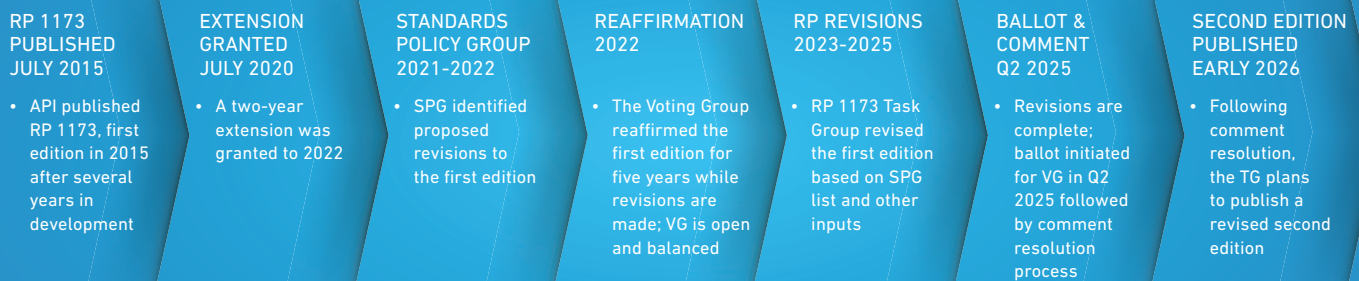
## PSMS LINKEDIN GROUP MEMBERSHIP INDUSTRY REPRESENTATION







The 1st edition of RP 1173 was published in 2015 following a recommendation from the National Transportation Safety Board (NTSB) and several years in development. API standards and RPs are reviewed at least once every five years to determine if further action is necessary, including a five-year reaffirmation, publication of a subsequent edition, withdrawal or a two-year extension. In 2020, the RP received a two-year extension while next steps were determined, with the Task Group then deciding on a five-year reaffirmation in 2022. Leading management system experts had encouraged a minimum ten-year implementation period for operators to understand the 1st edition's requirements and begin their implementation journey before changes were made in a 2nd edition.



In late 2022, the Team and API formed the Standards Policy Group (SPG) to compile a list of potential revisions, focusing on areas of confusion or potentially unclear provisions. The SPG also solicited input from the API Third Party Assessment Program, AGA Peer Review program, other third-party assessments, the safety culture survey and numerous others to improve the 1st edition.

Following this compilation, an RP 1173 Task Group (TG) began meeting monthly in 2023 and throughout 2024 to revise the document. The TG consists of over 100 members from federal and state regulators, safety experts, service providers, public safety advocates and operators. The proposed revisions include an annex for very small operators, which demonstrates the flexible and scalable nature of the RP for companies with fewer resources, less throughput or smaller customer bases. The annex outlines key considerations and foundational program elements for smaller operators, hopefully driving further commitment to and implementation of PSMS. Revisions also feature characteristics of safety culture for each PSMS Program Element, guidance on aligning PSMS and process safety and leading practices for stakeholder engagement.

With these improvements and more, the TG will ballot the 2nd edition in 2025 through the RP 1173 Voting Group, which is balanced among operators, service providers and general interest stakeholders. During the ballot process, any interested party can submit comments for review and resolution by the TG. Publication of the 2nd edition will be predicated on the scope of comments and time for resolution, with the TG aiming for early 2026.



# OVERSIGHT & REGULATORY ACTIVITIES



## NATIONAL TRANSPORTATION SAFETY BOARD PROMOTES PSMS

The National Transportation Safety Board (NTSB) plays a critical role in improving the safety of our nation's transportation network, including aviation, highway, rail, marine and pipeline. In 2024, the Board continued to encourage pipeline operators to implement PSMS and progress their effectiveness and maturity to reduce incident recurrence or severity.

In January 2024, NTSB published [their final report](#) on an offshore pipeline that experienced a vessel anchor drag and subsequent leak. The resulting investigation led to the Board's recommendation that PHMSA publish the following:

Issue an advisory bulletin to all Pipeline and Hazardous Materials Safety Administration-regulated pipeline owners and operators, promoting the benefits of pipeline safety management systems and asking them to develop and implement such a system based on American Petroleum Institute Recommended Practice 1173. (P-24-2)

Additionally in 2024, NTSB published a Safety Alert acknowledging industry progress on PSMS but noting pipeline incident severity would be decreased if more operators implemented it. The alert noted that while over 80% of the industry has adopted PSMS, smaller operators are lagging in their commitment, and operators continue to have incidents that could have been prevented or mitigated with PSMS. The alert encouraged operators to adopt a PSMS to track and improve safety through training and operations, including guidance for smaller operators in the revisions to the 1st edition of RP 1173. While the alert is neither binding nor mandatory, it highlights NTSB's increased focus on PSMS for operators to voluntarily go above minimum safety standards established through regulations and towards decreased incidents and improved safety performance.

## PHMSA REPORT DETAILS DISTRIBUTION PSMS PROGRESS

On August 2, 2024, PHMSA submitted its report to Congress titled "[Implementation of Safety Management Systems by Gas Distribution Pipeline Operators](#)". The report was required by Section 205 of the 2020 PIPES Act and examined the number of distribution operators implementing PSMS, their progress and the feasibility of an operator to implement PSMS defined by throughput volume or the number of customers.

The report highlighted that 503 of approximately 1,340 (38%) gas distribution operators responded to PHMSA's voluntary Request for Information last fall. PHMSA categorized respondents into five categories by the number of customers served and gas volume transported. These respondents represented at least 86% of distribution mileage.

Overall, most respondents indicated that they had at least some parts of PSMS in place. The report determined that implementation generally "tracked" with the size of distribution operators, with larger operators more likely to implement and be further along in their implementation journey compared to their smaller counterparts. For more than half of the smallest category of operators, implementation was "stalled" rather than "on track", and roughly half of the smallest category reported no plans to address identified PSMS gaps. This pattern held true for questions on gap assessments, management reviews and maturity evaluations, with 90-100% of large operators responding affirmatively but only 20-25% of the smallest operators. Most respondents noted they had a leadership commitment, primarily larger operators, but cited limited staff as the biggest barrier for more mature implementation. Stakeholder Engagement and Operational Controls are the hardest elements to implement for respondents, though challenges were identified across all 10 elements.

On the topic of feasibility, the report deemed that operators with fewer than 6,000 customers and transporting less than 1.3 BCF of gas have less than a 50% chance of implementation. For these operators, a "scaled" PSMS approach reflecting "the inherent organizational differences" between operators may be a catalyst to drive implementation. It encouraged distribution associations to continue promoting further commitment and implementation for smaller operators as well as revisions to RP 1173 to facilitate smaller operators implementing "a size-scaled PSMS program." The Team supported PHMSA's goal through this process by revising survey questions for improved effectiveness, encouraging operators to submit responses and sharing leading practices from across the industry to inform this report.



# 2024 ANNUAL SURVEY RESULTS

Pipeline operators representing nearly 80% of total mileage responded to the 2024 Annual Survey as implementing PSMS. Operators could self-select their participation in the new implementer survey for those three or fewer years into their journey or in the seasoned version for those three or more years into PSMS. The Team also conducted a survey of contractors' implementation expectations and progress. As distribution operators were surveyed in 2023 as part of PHMSA's Request for Information, the Team did not re-survey distribution operators and focused on transmission and gathering line operators that year. The results below compare the 2024 metrics with the last full survey of industry operators in 2022, including:

 **+23%**

increase in operators establishing management review and conducting at least one management review

 **+9%**

increase in operator's implementation as 'on track' or 'faster than planned'; 15% decrease in 'stalled for the moment'

 **+22%**

increase in operators maintaining a method to evaluate maturity

 **+13%**

increase in operators assessing safety culture since 2021

 **+4%**

increase in operators participating in external sharing or learning events, and

**88%**

of operators agreed or strongly agreed that PSMS was improving pipeline safety performance at their company (this question was not previously asked).

## TOP 5 ELEMENTS NEW IMPLEMENTERS ARE FOCUSED ON

1. Leadership & Management Commitment / Competence, Awareness & Training (tied)
2. Incident Investigation, Evaluation & Lessons Learned / Management Review & Continuous Improvement / Documentation & Record Keeping (tied)

## TOP 5 MOST CHALLENGING ELEMENTS FOR SEASONED IMPLEMENTERS

1. Stakeholder Engagement / Operational Controls (tied)
2. Documentation & Record Keeping
3. Management Review & Continuous Improvement
4. Competence, Awareness & Training





## OPERATORS DESCRIBED THE IMPORTANCE OF LEADERSHIP COMMITMENT IN MAINTAINING PSMS IMPLEMENTATION PROGRESS

“Leadership’s focus and commitment has remained consistent since implementation. Company did have a change in CEO/President in 2020, but involvement has remained the same. The CEO/President and V.P. HSSE are the element owners for Element 1 - Leadership and Management Commitment and participate in monthly steering committee meetings. All the company’s leadership team members participate in the Quarterly Management Review meetings, as well as upper management positions.”

“Our leadership’s focus and commitment to PSMS has remained consistent since our implementation began. We have completed a maturity assessment each year since implementing it and recently completed an assessment by API. Each year we develop goals, objectives, and targets to remain committed to it. There have been changes to our leadership during this time and despite those changes, the goal has continued to be committed to the management system.”

“Leadership’s focus and commitment to PSMS has been consistent. The PSMS is ingrained in how we operate our business. Members of the leadership team are key to instilling the importance of PSMS from the top down. The PSMS is overseen by a PSMS Steering Team, PSMS elements are championed by members of leadership, and consistent messaging from leadership connects the work done every day to PSMS.”

“Leadership’s commitment to the success of our PSMS is evident in continuous spotlights during employee meetings, resource allocation and incorporating PSMS into the day-to-day experience. There have been a few changes in leadership since our implementation, but PSMS remains a priority for our organization. We have included our PSMS in our sustainability report and produced a video that describes what a PSMS is and how employees connect with it through their day-to-day job functions, among other things. The commitment has remained consistent and was enhanced during 2024 with our awareness and engagement campaign.”





“At a high level, leadership's commitment to the concepts of a PSMS has remained fairly consistent over the past five years. However, a major re-organization occurred in 2023, which created a dedicated Management Systems team with the mandate to overhaul the company's approach to PSMS, with an emphasis on making the PSMS practical to tangibly meet the needs of the business. The company's leadership has been extremely supportive of these changes, resulting in measured progress over the past two years.”

“We began our journey in 2017 and have had many changes to our organizational structure including leadership. What we have found is that many of our top leaders today were educated on Pipeline Safety through our culture and meetings on their way to being top leaders. Through our monthly Pipeline SMS Committee meetings with top management, element leads, and formalized commitment with regulators we have strong leadership commitment. This was showcased in our most recent Third-Party Assessment.”



## OPERATORS HIGHLIGHT LEADING PRACTICES ON MATURITY EVALUATIONS AND HOW RESULTS ARE UTILIZED

“Maturity has been evaluated by a variety of methods including API self-assessment tool, self-assessment of annual goals, three-year review of PSMS internal guidelines, external third-party audits and internal employee audits of the elements and overall system.”

“We use the results of our performance measures on a defined frequency to evaluate and elevate the maturity and effectiveness of our management system. By focusing on continuous improvement, we have evolved our processes and strategies. Our strong safety culture and a disciplined approach to risk management have been foundational to our success and growth.”

“Each year since implementation, we have conducted a maturity assessment. From those maturity assessments, we have developed goals, objectives, and targets to further our implementation and effectiveness. Last year, we participated in the API PSMS Assessment program. Like years when we conducted our maturity assessments internally, we developed goals, objectives, and targets based on the feedback we received during the assessment.”

“The process is assessed utilizing our rigorous auditing protocols which enable us to assess our performance and progress frequently. Utilizing the API RP 1173 Maturity Model during our management system review process allows us to not only assess conformance but also the effectiveness of each element of the safety management system. This allows us to target our resources and goals to improve less mature elements of the safety management system as well as maintaining resources and support in high functioning elements.”

“Each sub-element's sponsor and owner assesses their sub-elements' maturity ratings during annual management reviews using inputs such as but not limited to internal and external assurance results. The average of all sub-elements' maturity ratings is our overall PSMS maturity rating. The sub-elements' and overall PSMS maturity ratings guide planning for the following year as well as demonstrate progress towards our long-term Operational Strategy.”



“Maturity is measured at the process and company levels. At the process level, process leaders evaluate maturity using an in-house maturity tool. Process leaders review results with leadership during a process performance assessment meeting and identify ideas to implement in the coming year to improve their scores. At the company level, the PSMS Implementation Tool is utilized. Gaps revealed in the results of the PSMS Implementation Tool are assigned to the appropriate element owner to address and close.”

“We evaluate our PSMS maturity on a biennial cycle using a maturity tool that is designed to evaluate the maturity of an integrated management system (API RP 1173, ISO 55001 and API RP 754). The results of the evaluation are reported at the Management Review. Actions resulting from the evaluation are assigned to an owner and monitored for progress and completion.”

“Our newly ratified PSMS Governance Document states, ‘The Element #7 Owner is responsible for organizing and executing an internal audit of the PSMS program on no less than a yearly basis.’”

“Our internal audit department conducted a thorough audit using the API tool, assessing the maturity level of each element and identifying areas for improvement. A PSMS Council was established to review the results and develop a strategy to address gaps, with the goal of achieving a maturity level of four or more. Element owners are actively involved in the council to ensure effective implementation of the strategy.”

“Our Corporate Internal Audit team conducts annual reviews to evaluate conformance to API RP 1173, element implementation, and maturity; through this engagement, each element is audited at least once every three years. We also utilize the Industry Implementation Tool for annual self-assessment and have hosted API for a PSMS Third-Party Assessment in 2021. Resulting observations, recommendations, or opportunities are prioritized, planned for, and included in future iterations of SMS implementation.”





## IN THEIR OWN WORDS - OPERATOR TESTIMONIALS ON PSMS IMPACT ON SAFETY



### LEADERSHIP & MANAGEMENT COMMITMENT

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“The focus on getting top management approval on risks and funding has helped bring the conversations together and support funding approval. Also, PSMS has helped with the review of events (internal/external) and associated process improvements. **We have implemented 72 improvements identified through the event reviews** to proactively address issues.”

“I have experienced our highest throughputs to our current limited use status on the pipeline system and the one thing that has been consistent and has kept our employees, contractors, communities, and **the environment safe during those times has been our commitment and dedication to PSMS.** It's helped define a process for procedure effectiveness reviews to meet PHMSA's expectations, determine contractor expectations and an evaluation process, identify transparency in training gaps, and transition paper documents into electronic forms so critical documents are readily accessible.”

### RISK MANAGEMENT

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“Our employees have begun to provide items they associate as risks or hazards during our initial socialization of our PSMS program. There seems to be an increased awareness to report what they see, and they seem **confident these items will be addressed and given appropriate attention.**”

“Members of our SMS team have **engaged local operations through in-person meetings to learn about risks** that are experienced and explore risk mitigation strategies. Following these engagements, individuals have increasingly reached out to the SMS team to share concerns or risks they have experienced. Through these efforts, preventative or corrective actions have been implemented, controls developed or strengthened, and lessons learned communicated across the enterprise and to contractors.”

“ Now, employees can easily submit reports of near misses, good catches, recommendations, recognition, or general observations related to safety on their laptops or mobile devices. They also have an option to submit anonymously. **There was a 6600% annual increase in submissions.**”

## OPERATIONAL CONTROLS

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“ We have created a Stop Work policy and Near Miss reporting form that have been incorporated into our employee handbook and communicated companywide to employees to **encourage safe working and the ability to learn from near misses.**”

## INCIDENT INVESTIGATION, EVALUATION & LESSONS LEARNED

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“ Over approximately the last two years, the PSMS program has generated 76 Corrective and Preventative Action items, primarily through the implementation of a formal Lessons Learned program. While some of these CAPA may have still been addressed, **they would not have been formally, logged assigned, and available as records** to measure effectiveness and used to guide future actions and decisions toward continuous improvement.”

“ The most significant enhancement to pipeline safety and safety culture at Company has been **the culture of sharing and learning that PSMS helped foster** through programs like Organizational Learning Review and CAPA (in support of Incident Investigation, Evaluation, and Lessons Learned) and a CAP program where employees can submit proactive “Good Catches” that are shared across the organization. Employees are recognized for their efforts to promote the company values that are directly related to PSMS.”

“ In the past, information on internal incidents or events and any associated learnings were not shared at all or may have been kept to the local area or state. **We now share these frequently offering the entire utility footprint an opportunity to learn.** Today we share external events and document internal corrective actions resulting from review of such events. **We now have a system in place to document corrective actions, assign accountability, and track actions to completion helping our company ensure actions are being taken to reduce risk.**”



## EMERGENCY PREPAREDNESS & RESPONSE

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“ Our company recently formalized a “Crisis Communications Plan” that was ratified through the PSMS Steering Committee. The plan has a number of pre-prepared statements based on the nature and severity of the event, as well as a branched structure to determine which internal and external stakeholders need to be contacted. Shortly after the plan was enacted and basic training around the document had been completed, a minor emergency occurred. **Upon review with the Element Owner, the involved communications personnel stated that the document felt like a safety net during a challenging time** and that there was comfort in being able to check their actions against the document to ensure nothing was missed. They noted that the process felt more algorithmic and less chaotic, which aided in keeping focused when it was most needed.”

## DOCUMENTATION & RECORD KEEPING

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“ We added revision dates to all forms to **ensure what is being used is current**, increased the use of sign-in sheets for trainings and other activities and consolidated and better defined retention schedules for records.”



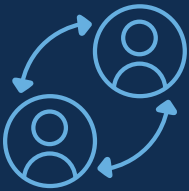
# 2025 FOCUS AREAS AND KEY ACTIVITIES

In 2025, the PSMS Team will maintain its four main focus areas: increasing industry participation, engaging stakeholders, supporting operator and contractor journeys and providing governance and oversight with the following key activities planned:



## PROVIDING OPERATOR & CONTRACTOR SUPPORT

- Conduct 2025 Annual Survey of both new and seasoned implementers as well as contractors
- Finalize the annex for very small operators to demonstrate flexibility and scalability in the 2nd edition of RP 1173, and
- Break down barriers identified in the survey, develop peer-to-peer outreach methods and determine a metric for PSMS effectiveness to drive industry participation



## ENGAGING STAKEHOLDERS

- Publish the 2024 Annual Report, two-page summary and social toolkit to demonstrate implementation progress and growing maturity
- Engage PHMSA, NTSB, state regulators and public advocates on industry progress and leading practices using the Annual Report
- Develop a metric to highlight PSMS implementation effectiveness in improving safety performance and socialize it with relevant stakeholders, and
- Disseminate contractor guidance, training material and the contractor assessment program with appropriate target audiences





### **SUPPORT OPERATOR & CONTRACTOR JOURNEYS**

- Encourage distribution operators to participate in the 2025 safety culture survey while preparing for the transmission cycle in 2026
- Finalize and distribute training for field personnel and contractors
- Hold PSMS sessions at 2025 API Pipeline Conference to highlight leading practices
- Finalize tools on notable practices, process safety management and integrating existing programs with PSMS to support operator journeys, and
- Conduct at least eight operator and contractor assessments and update benchmarking report as appropriate



### **ENSURING GOVERNANCE & OVERSIGHT**

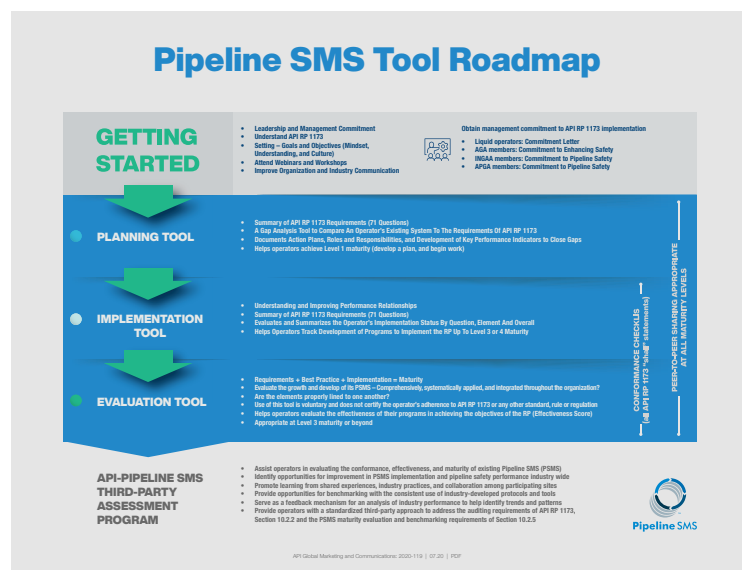
- Finalize the 2nd edition of RP 1173 and publish in late 2025 or early 2026,
- Review incident data from pre-RP 1173 to current to determine implementation effectiveness, and
- Transition to incoming Chair and Vice Chair while planning Team priorities and metrics for success in 2026.

# GETTING YOUR PSMS JOURNEY STARTED

While starting your PSMS implementation journey can seem daunting, there are abundant resources and experts to help support you along the way. Building knowledge and awareness of a PSMS is a great first step, including through the fact sheet, booklets and webinars on [www.PipelineSMS.org](http://www.PipelineSMS.org). The site has examples of management commitments from across the pipeline industry as organizations adopt the RP. New implementers should seek this commitment to secure buy-in from organizational leaders, set goals and metrics for success and allocate resources accordingly.

Following the initial commitment, new implementers should conduct a gap analysis using the [RP 1173 Planning Tool](#). The tool includes a 71-question summary of RP 1173 requirements to help an operator compare its existing system to the PSMS requirements, identify gaps and develop action plans and responsibilities to close them. After a gap closure plan has been implemented, the next step is using the [RP 1173 Implementation Tool](#), which evaluates an operator's implementation status by specific requirements and Program Elements. The Implementation Tool uses the same 71-question breakdown as the Planning Tool for ease of utilization to measure progress and maturity. Operators can then employ the [RP 1173 Evaluation Tool](#) as a comprehensive set of requirements to measure the effectiveness in addition to the conformance of their programs in achieving the RP's objectives.

Each of these tools match up with various levels in the Industry Maturity Model focusing on conformance to the RP's requirements (Levels 1-3) and improving the effectiveness of safety performance programs (Levels 4-5). In addition to these tools, peer-to-peer sharing offers an invaluable resource to learn from others on overcoming similar challenges. API also offers a PSMS Third Party Assessment Program to assess an operator's conformance, effectiveness and maturity, benchmark across the industry and compile opportunities for improvement and notable practices. AGA's Peer Review Program also facilitates peer-to-peer sharing while offering informal practice exchanges among operators. Resources for getting started are abundant, so kick off your journey without further delays and learn from others!







## Pipeline SMS

### API

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