ENHANCING SAFETY AND CONTINUOUS IMPROVEMENT IN PIPELINE OPERATIONS, CONSTRUCTION AND MAINTENANCE

API's PIPELINE SAFETY MANAGEMENT SYSTEM (SMS) ASSESSMENT

American Petroleum Institute

Pipeline SMS Assessment Program

WHAT IS A PIPELINE SAFETY MANAGEMENT SYSTEM (SMS) ASSESSMENT?

PIPELINE SMS ASSESSMENTS DEMONSTRATE A COMMITMENTTO A CULTURE OF SAFETY AND CONTINUOUS IMPROVEMENT WITHIN EACH INDIVIDUAL COMPANY AND ACROSS THEPIPELINE INDUSTRY.

A Pipeline SMS Assessment looks beyond regulatory compliance, providing organizations insights on continuous safety improvement opportunities in their operations and programs. During a Pipeline SMS Assessment, a team of independent, pipeline safety experts spend up to a week at a centralized location with field verification visits, working with employees and leadership across the company's business model to evaluate the health and maturity of the organization's Pipeline SMS.

PIPELINE SMS IS DIFFERENT FROM A TYPICAL AUDIT.

The Pipeline SMS Assessment Program promotes step changes in performance through the sharing of experiences and industry practices. The program is designed to support organizations with a standardized and consistent, third-party approach to address the need for third party reviews and insights into Pipeline SMS Implementation. The Pipeline SMS assessments serve as a feedback mechanism for an analysis of industry performance to help identify trends and patterns. Pipeline SMS Assessments help companies benchmark their programs to evaluate internal procedures and processes. The program is intended to be flexible, such that assessments can be tailored to fit a company's size and level of Pipeline SMS maturity.

API's New Pipeline SMS Contractor Assessment

Following the creation of *Pipeline SMS: A Contractor's Guide*, API and the Pipeline SMS Industry Team discussed how best to start the conversation of aligning industry around a common set of safety program requirements for contractors. As such, API and the Pipeline SMS Industry Team is offering a new assessment to pipeline contractors and service providers, specifically to give expert feedback on how to mature their safety programs faster and to start speaking one language with their pipeline customer-operators, as outlined in the free published materials at PipelineSMS.org. We are excited to begin these assessments in 2024.

EXPERTS

THE ASSESSORS ARE INDEPENDENT PIPELINE AND SAFETY MANAGEMENT SYSTEM EXPERTS IDENTIFIED BY API.

The assessors average about 20 years of industry experience, often retired industry leaders, with areas of further expertise (operations, risk management, etc.). They work with each company to evaluate both the quality of written programs and the effectiveness of implementation of their organization's safety programs.

REPORT

THE ASSESSORS PROVIDE A SUMMARY OF ASSESSMENT ACTIVITIES, PIPELINE SMS STATUS, RESULTS BY EACH RP 1173 ELEMENT, OPPORTUNITIES FOR IMPROVEMENT, AND BENCHMARKING DATA.

Benchmarking is one of the most valuable offerings of the Pipeline SMS Assessment Program. The assessment uses industry-developed protocols and tools, which ensures benchmarking consistency. With the company's permission, maturity evaluation level summaries, across RP 1173 expectations and elements, are aggregated and blinded in a database to compare your performance to the industry and identify areas for improvement. This also allows the industry and organizations to measure its progress over time.
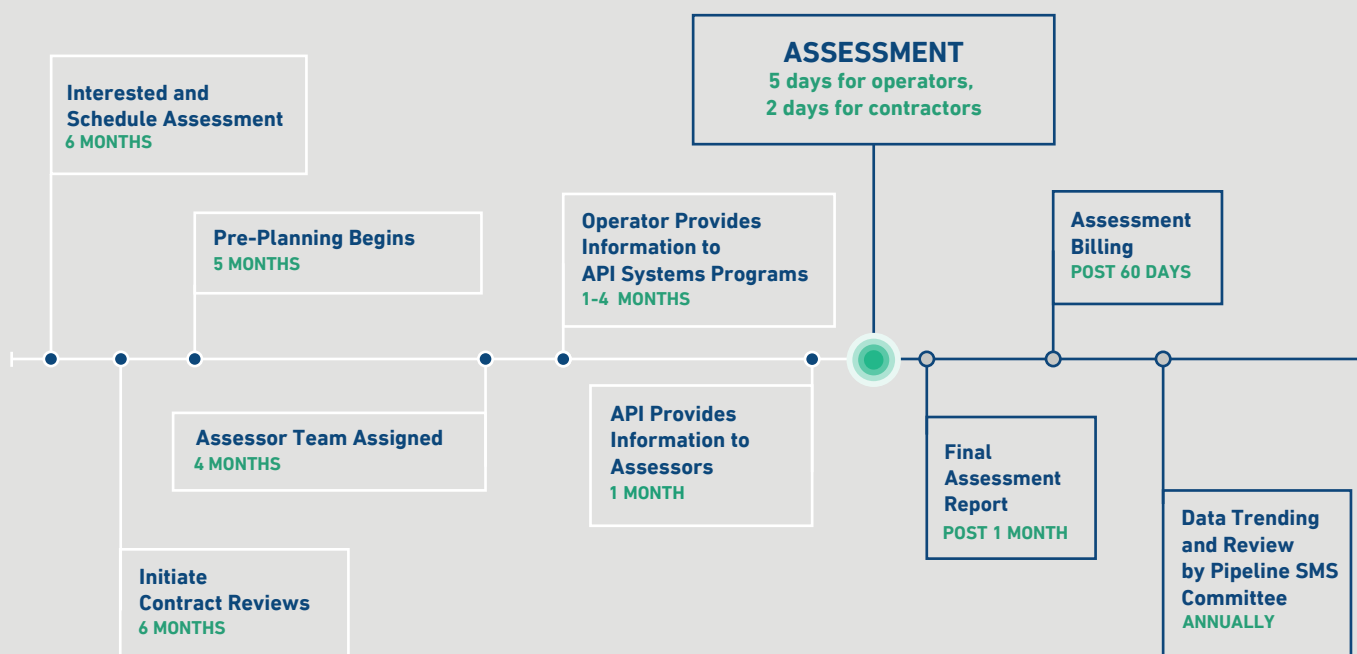
PROCESS

PIPELINE SMS ASSESSENT PROGRAM ESTABLISHES AN EFFECTIVE AND EFFICIENT PROCESS.

The entire process – from the establishment of an assessment guidance schedule (below) to the final assessment report – takes about 3 to 6 months. The API GIS works with the organization to complete contracting, information requests, and planning activities to ensure the on-site assessment schedule meets company needs and assessment requirements.

Interested and Schedule Assessment
6 MONTHS

Pre-Planning Begins
5 MONTHS

Assessor Team Assigned
4 MONTHS

Initiate Contract Reviews
6 MONTHS

Operator Provides Information to API Systems Programs
1-4 MONTHS

API Provides Information to Assessors
1 MONTH

ASSESSMENT
5 days for operators,
2 days for contractors

Final Assessment Report
POST 1 MONTH

Assessment Billing
POST 60 DAYS

Data Trending and Review by Pipeline SMS Committee
ANNUALLY

While each assessment is flexible, based on the size of the organization and scope of operations, a typical assessment takes about five days, with many opportunities to learn through engagements with the assessors.

The API GIS team and lead Pipeline SMS assessor work with the organization to schedule meetings with their subject matter experts (SMEs); additionally they spend a considerable amount of time on-site, working with companies to determine how procedures and programs are being used and implemented.

There are daily debriefs and a closing conference to review key highlights and opportunities for each element or area assessed.

Following the on-site assessment, an assessment report is developed and provided, including a collection of what is working well and a set of observations about the implementation of existing policies and procedures in the field.

✓ ELEMENTS

THE 10 ELEMENTS OF RP 1173 ARE THE FOUNDATION OF THE PIPELINE SMS ASSESSMENT PROGRAM AND ADDRESS KEY AREAS OF PIPELINE SAFETY PROCESSES AND PROCEDURES FOR A PIPELINE'S LIFE CYCLE.

API Recommended Practice (RP) 1173 Pipeline Safety Management Systems, was developed through API's American National Standards Institute (ANSI) accredited standards development process and the collaborative efforts from industry, companies, and subject matter experts. Additionally, API and the Pipeline SMS Industry Team published *Pipeline SMS: A Contractor's Guide* as a guidance for contractors and service providers looking to integrate their safety programs with their customer-operators. The assessments also provides insights into system maturity and effectiveness. For each element, the assessors focus on assessing program, process, and system conformity with RP 1173, implementation across operations and in the field, promoting a robust safety culture and learning from leading industry practices.

ELEMENTS:

1. Leadership and Management Commitment

2. Stakeholder Engagement

3. Risk Management

4. Operational Controls

5. Incident Investigation, Evaluation, and Lessons Learned

6. Safety Assurance

7. Management Review and Continuous Improvement

8. Emergency Preparedness and Response

9. Competence, Awareness, and Training

10. Documentation and Record Keeping

Strengthens pipeline safety management systems for individual organizations
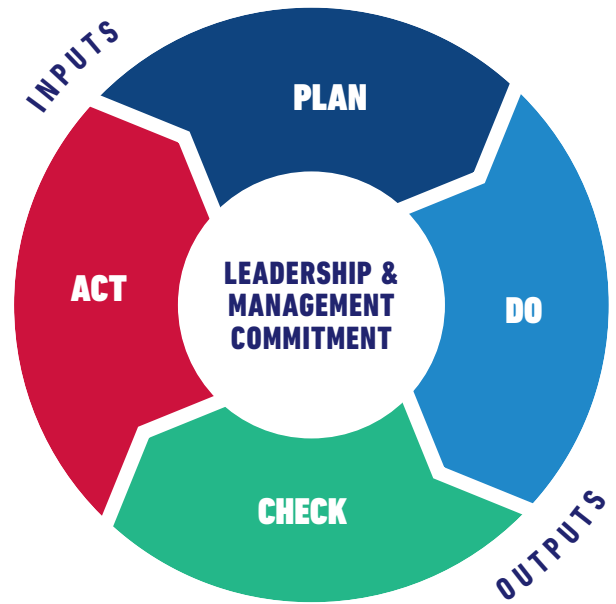
Provides shared learnings and benchmarking across the pipeline industry

Enhances pipeline safety and operations across pipeline organizations

HOW DOES THE MATURITY EVALUATION WORK?

Assessors use the Industry-developed Pipeline SMS Maturity Model to evaluate company's Pipeline SMS maturity in each of the elements deemed in-scope for the assessment. The model has 5 levels, outlined below. It uses industry approved key performance indicators based on an organization's scope and allows for benchmarking across peer groups. Levels 1–3 indicate Conforming, Level 4 Sustaining, and Level 5 Improving. Evaluation at Levels 4 and 5 indicate the degree to which it has been effectively implemented and is resulting in measurable performance improvement.

LEVEL	DESCRIPTION
0	**Considering**: Requirements are not addressed, and there is no plan to address. The organization or unit thereof may have considered implementing a management system or a component of it but has not formally committed to doing so.
1	**Planning**: The organization or unit thereof is developing an understanding of the management system and has developed and approved an implementation action plan.
2	**Developing**: Pipeline SMS processes, procedures, programs or organizational structures to support the management system are being developed. Implementation is not yet complete (50%).
3	**Implemented**: Organizational structures are in place, processes are fully developed, procedures and programs documented and functional.
4	**Sustaining**: Processes and procedures are being applied consistently over time. Performance measures have been developed and are being used and reported.
5	**Improving**: There is evidence of continual improvement in the management system components (processes, procedures, programs and their performance indicators) and in the organization's performance against standardized industry key performance indicators.