WHAT IS A PIPELINE SMS ASSESSMENT?

PIPELINE SMS ASSESSMENTS DEMONSTRATE A COMMITMENT TO A CULTURE OF SAFETY AND CONTINUOUS IMPROVEMENT ACROSS THE PIPELINE INDUSTRY.

A Pipeline SMS Assessement looks beyond regulatory compliance, providing operators insights on continuous safety improvement opportunities in their operations and programs.

During a Pipeline SMS Assessment, a team of independent, pipeline safety experts spends about a week on-site, working with employees and leadership - across operations - to evaluate the health and maturity of the organizations' Pipeline SMS.

PIPELINE SMS IS DIFFERENT FROM A TYPICAL AUDIT.

The Pipeline SMS (SMS) Assessment Program promotes step changes in performance through the sharing of experiences and industry practices. Designed to support the API RP 1173 requirements for system audits and evaluation of Pipeline SMS effectiveness and maturity, the assessments serve as a feedback mechanism to identify industry trends and patterns.

Pipeline SMS Assessments help operators benchmark their programs to evaluate internal procedures and processes. The program is intended to be flexible, such that assessments can be tailored to fit an operator's size and level of Pipeline SMS maturity.

HOW DOES THE MATURITY EVALUATION WORK?

Assessors use the Pipeline SMS Maturity Model to evaluate operators' Pipeline SMS maturity in each of the 10 elements. The model has 5 levels, outlined below. It uses industry-approved key performance indicators based on an operator'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 is based on data that shows a Plan-Do-Check-Act cycle is in place and working.

INPUTS

OUTPUTS

PLAN / DO / CHECK / ACT

LEADERSHIP & MANAGEMENT COMMITMENT

Risk Management
Emergency Preparedness and Response
Operational Controls
Competence, Awareness and Training
Documentations and Record Keeping
Stakeholder Engagement
Incident Investigation, Evaluation and Lessons Learned
Safety Assurance
Management Commitment and Continuous Improvement

LEVEL	DESCRIPTION
0	**Learning**: 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.

ENHANCING SAFETY AND CONTINUOUS IMPROVEMENT IN PIPELINE OPERATIONS

API's Pipeline Safety Management System (SMS) Assessment

energy **API**

EXPERTS

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

The assessors typically average about 20 years of industry experience, with particular areas of further expertise (operations, risk management, etc.).
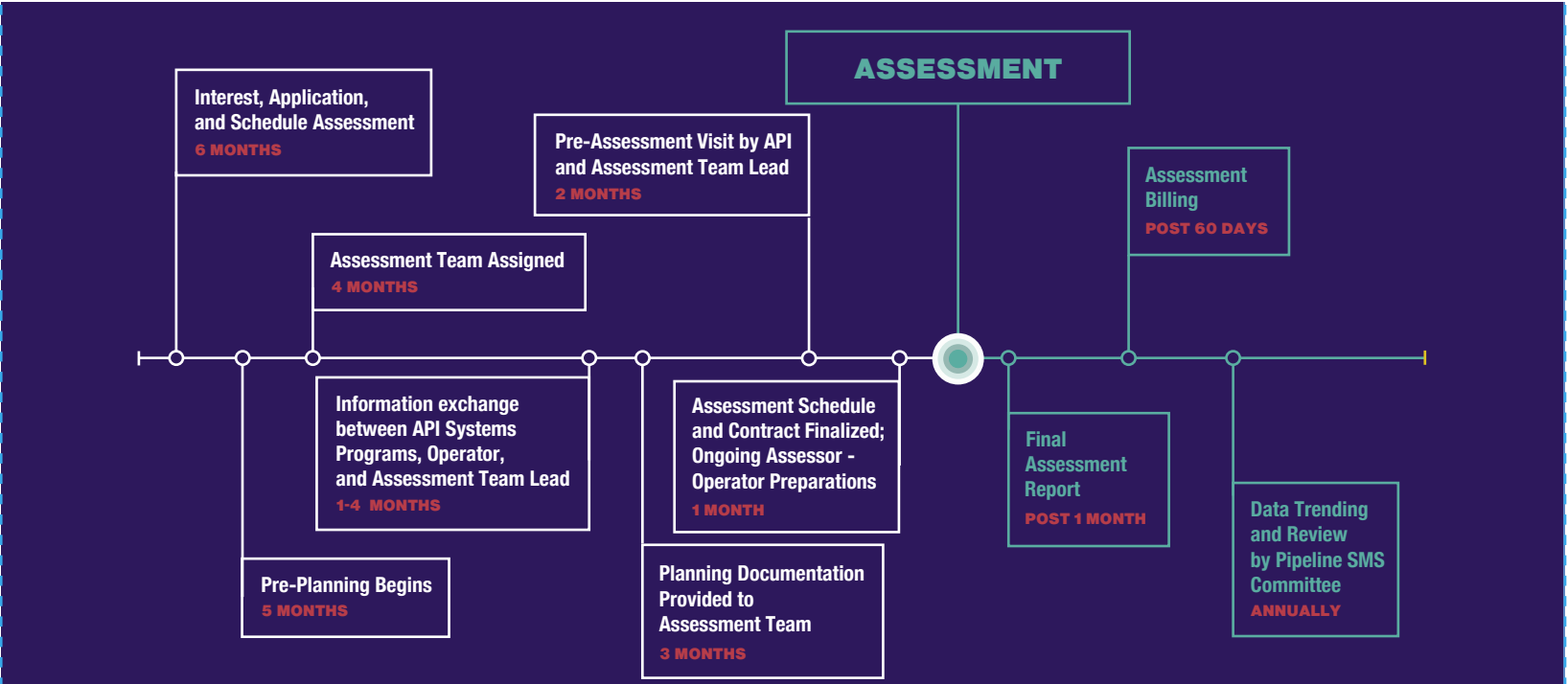
They work with each operator to evaluate both the quality of written programs and the effectiveness of implementation.

PROCESS

PIPELINE SMS ASSESSENT PROGRAM ESTABLISHES AN EFFECTIVE AND EFFICIENT PROCESS.

The entire process – from the establishment of an assessment schedule to the final assessment report – takes about 6 months. The assessment team works with the operator to complete contracting, information requests, and planning activities to ensure the on-site assessment schedule meets operator needs and assessment requirements.

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 of subject matter experts. The assessment 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.

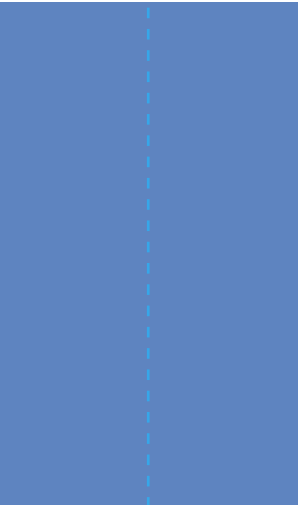## Process diagram

ASSESSMENT

- **Interest, Application, and Schedule Assessment** — 6 MONTHS
- **Assessment Team Assigned** — 4 MONTHS
- **Pre-Assessment Visit by API and Assessment Team Lead** — 2 MONTHS
- **Assessment Billing** — POST 60 DAYS
- **Pre-Planning Begins** — 5 MONTHS
- **Information exchange between API Systems Programs, Operator, and Assessment Team Lead** — 1-4 MONTHS
- **Assessment Schedule and Contract Finalized; Ongoing Assessor - Operator Preparations** — 1 MONTH
- **Final Assessment Report** — POST 1 MONTH
- **Planning Documentation Provided to Assessment Team** — 3 MONTHS
- **Data Trending and Review by Pipeline SMS Committee** — ANNUALLY

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. With the operator's permission, maturity evaluation level summaries, across the 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 to measure its progress over time.

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

Pipeline SMS assessors work with an operator to schedule meetings with the operators' subject matter experts (SMEs); additionally they spend a considerable amount of time on-site, working with operators to determine how procedures and programs are being used and implemented.

There are daily de-briefs and a closing conference to review key highlights and improvement opportunities for each element and area assessed.

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

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 operators

Provides shared learnings and benchmarking across the pipeline industry

Enhances pipeline safety and operations across pipeline operators