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AMERICAN PETROLEUM INSTITUTE

GLOBAL INDUSTRY SERVICES
SYSTEM PROGRAMS

API Pipeline Safety Management System Assessment Program

Application

PIPELINE SMS ASSESSMENT APPLICATION
NOVEMBER 2019



Pipeline SMS
Assessment Program



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API Pipeline SMS Assessment Program

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Submission of the Application

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Part 1 – Application

Please fill in the necessary requirements.

Part 2 – Application Questionnaire

This is to collect information about the facility's process safety programs and to assist in planning and conducting the assessment.

API Pipeline SMS Assessment Program

Program Overview

Thank you for your interest in participating in an API Pipeline Safety Management System (PSMS) Assessment. This application form must be used when applying for an API Pipeline SMS Assessment.

This application provides API with the basic information required for processing your inquiry. Please include as much detailed information as possible. All information will be kept private and confidential. By completing an application and submitting it to API, you agree that API may use your personal information to contact you in connection with your interest in the Pipeline SMS Assessment program and all activities necessary to conduct and complete an assessment. If you have any questions, please contact our office by calling API at 281-978-4940 or please send email inquiries to Andrew Broadbent, broadbent@api.org, or Ryan Meng, mengr@api.org.

What is a Pipeline SMS Assessment?

Pipeline SMS assessments contribute to a culture of safety and continuous improvement across the pipeline industry. During a Pipeline SMS assessment, a team of independent, third-party safety management system experts (“assessors”) spend about a week at an operator’s site, working with employees and leadership (across operations and in the field) to fully understand the current pipeline safety processes, programs and systems. The assessment is based on API Recommended Practice (RP) 1173, *Pipeline Safety Management Systems*, and is designed to assist operators in evaluating the conformity, effectiveness and maturity of the existing Pipeline SMS. Following the assessment, the Pipeline SMS assessment team provides observations, opportunities for improvement, and benchmarking data that can be used by the operator to help enhance pipeline safety and improve outcomes across pipeline operations.

Who developed the Pipeline SMS Assessment Program?

The Pipeline SMS Assessment Program is part of the efforts of API and the Pipeline SMS Industry Team made up of six oil and gas trades representing transmission and distribution pipelines including the American Gas Association (AGA), American Public Gas Association (APGA), Association of Oil Pipe Lines (AOPL), Canadian Energy Pipeline Association (CEPA) and the Interstate Natural Gas Association of America (INGAA) to proactively support industry adoption and commitment to RP 1173 and implementation of pipeline safety management systems. For liquid pipeline operations, API and AOPL reports directly to the API-AOPL Performance Excellence Team and ultimately to API-AOPL pipeline leadership and the API Pipeline Subcommittee

Program benefits & opportunities

- Credible third-party independent assessment by experienced, qualified individuals.
- Evaluates the conformity of programs, processes, systems and effectiveness of implementation.
- Evaluates maturity and effectiveness of existing PSMS and implementation of RP 1173.
- Provides opportunities for learning from sharing experiences and industry practices.
- Industry Benchmarking allows you to gauge performance against the industry.

What do Pipeline SMS assessors focus on?

The assessment is designed to address all 10 PSMS elements listed in RP 1173, although an operator may choose to limit the scope to a few elements that are of specific interest. The 10 elements of RP 1173 are designed to address key areas of pipeline safety processes and procedures for a pipeline’s life cycle. RP 1173 was developed through API’s American National Standards Institute (ANSI)-accredited standards development process leveraging collaborative efforts of subject matter experts, from a range of companies and regulators. For each element, the assessors focus on assessing program, process and system conformity with RP 1173; field implementation; and promoting learning from the sharing of experiences and successful practices seen at industry sites to help operators drive improvement.

API Pipeline SMS Assessment Program

Program Overview

What areas/elements are assessed by Pipeline SMS's third-party expert teams?

1. Leadership and Management Commitment (Section 5 of RP 1173);
2. Stakeholder Engagement (Section 6);
3. Risk Management (Section 7);
4. Operational Controls (Section 8);
5. Incident Investigation, Evaluation, and Lessons Learned (Section 9);
6. Safety Assurance (Section 10);
7. Management Review and Continuous Improvement (Section 11);
8. Emergency Preparedness and Response (Section 12);
9. Competence, Awareness, and Training (Section 13);
10. Documentation and Record Keeping (Section 14).

How is a Pipeline SMS Assessment different from a typical audit or assessment?

The Pipeline SMS Assessment Program promotes step changes in performance, through the sharing of experiences and industry's practices, and serves as a feedback mechanism to identify industry trends and patterns. Pipeline SMS Assessments help operators benchmark their programs to help each operator evaluate its internal procedures and processes. The program is intended to be flexible such that assessments can be tailored to fit an operator's level of PSMS maturity. The program is also intended to provide operators with a standardized, voluntary third-party approach to address the assessing requirements of RP 1173, Section 10.2.2, and the PSMS maturity evaluation and benchmarking requirements of Section 10.2.5.

The Pipeline SMS Assessment will both review a pipeline operators' PSMS for conformance to the RP and evaluate its effectiveness, with scoring based on the PSMS Maturity Model levels.

- Effective and Efficient Process
- Employee discussions - across operations and in the field – with pipeline safety management system experts
- Pipeline SMS assessors spend time in the field assessing deployment and implementation

Who are the assessors?

The assessors are independent teams of pipeline and process safety experts identified by API. The assessors typically average up to 20 years of industry experience, with particular areas of further expertise (operations, risk management, etc.). They work with each operator to evaluate both the conformity of processes, programs and systems, and the effectiveness of implementation.

How does a typical assessment work?

While each assessment is customizable, based on the size of the operator and scope of operations, a typical assessment takes about five business days, and includes: meetings with the operator's subject matter experts ("SMEs"), based on a pre-determined schedule; assessors spending considerable time working with pipeline operations to determine how procedures and programs are being used and implemented. Daily de-briefs and the closing conference review the key highlights and areas recommended for further review for each area assessed.

Program Assessment Tool

10 Elements based on RP 1173 – Focused on key pipeline safety activities:

1. Leadership and Management Commitment (Section 5 of RP 1173);
2. Stakeholder Engagement (Section 6);
3. Risk Management (Section 7);
4. Operational Controls (Section 8);
5. Incident Investigation, Evaluation, and Lessons Learned (Section 9);
6. Safety Assurance (Section 10);

API Pipeline SMS Assessment Program

Program Overview

7. Management Review and Continuous Improvement (Section 11);
8. Emergency Preparedness and Response (Section 12);
9. Competence, Awareness, and Training (Section 13);
10. Documentation and Record Keeping (Section 14).

Program Tool Questions and Expectations

Each of the assessment tool questions, identified as RP 1173 element expectations, encourages going beyond the basics to assess conformity to RP 1173, maturity, and effectiveness to help identify opportunities to improve the PSMS and safety performance.

How Does Maturity Evaluation Work?

The assessment will use the [PSMS Maturity Model](#) with levels 1 through 5 to evaluate an operator's PSMS maturity in each of the elements. The Pipeline SMS Assessment Tool is designed to evaluate an operator's progress in the implementation of their PSMS. The Assessment Tool contains 50 Expectations based on the RP 1173 elements, sub-elements, and 234 "Shall" statements and requirements of RP 1173. The Assessment Tool rates each statement on a scale of 1 to 3 for conformity (1 for Planning, 2 for Developing, 3 for Implemented/Conforming) and provides additional ratings for effectiveness at Level 4 for Sustaining and Level 5 for Improving. For each PSMS element, all the Expectation levels for that element are assessed and then averaged across all 10 PSMS elements to establish the Implementation-Conformity Level of the PSMS.

The Assessment Tool includes a worksheet in which the Pipeline Operator inputs both normative and informative key performance indicators (KPIs) applicable across their segment (liquid transmission, gas transmission and gas distribution) of the pipeline industry. The informative KPIs are used to put the operator's pipeline system into context versus its industry peers. The normative KPIs are used to support the Effectiveness Level at Level 5, Improving.

Evaluation at Level 4, Sustaining and Level 5, Improving (Effectiveness Levels) is based on data to demonstrate the operator measures and demonstrates measurable improvements in the elements, process, programs and systems of the PSMS. In other words, a Plan-Do-Check-Act (PDCA) Cycle is in place and working.

Maturity Level Definitions

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: PSMS 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.

API Pipeline SMS Assessment Program Program Overview

Final Report

Will include:

- Summary of the assessment activities and the status of the Pipeline SMS.
- Summary of the assessment results, including the PSMS highlights, observations, areas for improvements, effective practices and maturity levels.
- Summary of assessment results by RP 1173 element.
- Detailed Assessment Tool and Workbook information.

Benchmarking

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 blindly placed in a database to allow you to compare your performance to the industry and identify areas for improvement. It also allows the industry to measure its progress over time.

API Process Safety Site Assessment Program

Assessment Options

Assessment Approaches

The Pipeline SMS Assessment process is intended to evaluate the conformity and maturity, i.e. implementation level, of the PSMS against RP 1173 and effectiveness of the PSMS in the continuous improvement of pipeline safety performance. Throughout the course of the pre-assessment process, operators will have the opportunity to identify their objectives for the assessment and areas of focus for the assessors – such as focus on qualitative best practices or RP 1173 conformance. The assessment will cover the programs, processes, procedures, documents, and records where the PSMS is managed. It will also include visits to facilities such as control rooms, terminals, pumping stations, etc. where activities are being executed to assess the effectiveness of implementation.

1. A General Assessment
 - a. Includes any combination of elements 1 thru 10
2. Contact the Program Manager for other assessment approach options to meet your needs.

These options can include but are not limited to:

- a. Limiting the Assessment to one or more elements of RP 1173 or,
- b. Conducting a follow up assessment for one or more protocol area after participating in a full general assessment.

API Pipeline SMS Assessment Program

Assessment Deliverables

The API Pipeline SMS Assessment will provide you with the following logistical support and deliverables:

1. Pre-Assessment Visit

API will conduct a Pre-Assessment Visit as a general introduction to the assessment program and process.

- API staff will meet and greet the operator employee(s) assigned to oversee the Pipeline SMS assessment arrangements, and
- API will present & discuss the Pipeline SMS assessment with the operator's leadership team, including general overviews of:
 - Background and reason for the program,
 - The coverage of the Elements and their development,
 - Scheduling for the week of the assessment – Sunday to Friday,
 - General selection criteria for assessors,
 - Explanation of assessment maturity evaluation,
 - Documents to be provided by operator prior to onsite assessment,
 - Field location(s) to be included visited during onsite assessment,
 - Data, documents and report handling procedures, and
 - How benchmarking information will be provided.
- API and the operator will discuss the operator's self-assessment results and maturity levels based on the PSMS Maturity Model.

2. Logistical Support

API shall also provide the following logistical support:

- Explain requirements and restrictions of assessor team make-up;
- Provide API Assessment Elements;
- Inform assessors of necessary logistical arrangements (i.e., hotel, etc.);
- Provide interview and schedule template for the Operator to complete for scheduling assessment interviews;
- Provide a PowerPoint for use with site employees or contractors that provides an overview of the program.

3. Onsite Assessment of Key Pipeline SMS Activities

API will provide a team of experienced assessors, who average up to 20 years of experience, using the RP 1173 elements. This assessment provides an:

- Evaluation of both the conformity of the operator's programs, processes, systems and effectiveness of implementation (see Program Options for complete list).
- Information and experience exchange between the assessors and operator personnel.
- The assessment provides an opportunity for enhanced dialogue with assessors and the opportunity to garner information from the assessors in the field of pipeline safety.

4. After the Assessment

API shall also provide the following reports to the operator after the assessment according to the explained timetable:

- Rough Draft PowerPoint Report (day of closing conference)
- Draft Report (~1 to 2 weeks after closing conference)
- Final Report (~4 to 6 Weeks after closing – allows for site comments on Draft Report)

API Pipeline SMS Assessment Program

Assessment Deliverables (cont.)

5. Written Report

The report will contain the following information:

- Detailed Analysis by each protocol of:
 - Summaries of the maturity and status of the Pipeline SMS implementation. Including commentary on the comprehensiveness, the systematic nature and integration of the Pipeline SMS elements.
 - Key Notable Practices and System Highlights
 - Key Observations & Opportunities for improvements
 - Completed Assessment Tool and Workbook
 - Includes assessors' observations for each element expectation
 - Site Score for each question
 - List of positions interviewed
 - Operator and Industry Maturity levels at the Assessment Tool expectation and RP 1173 elements
- Scope Summary
- Team Listing
- Definition of Terms
- Maturity Evaluation Information (explains how maturity levels are determined)

6. Benchmarking Data

Once enough data is compiled from Pipeline SMS Assessments, API shall also provide benchmarking data with the final report and then periodic updates as additional assessments are conducted at other locations. The benchmarking data includes, but is not limited to:

- Operator and Industry Maturity Levels for each Assessment Tool and sub-element expectation
- Operator and Industry Maturity Levels for each RP 1173 element
- Graphical representations indicating Implementation-Conformity and Effectiveness Levels compared to industry averages and other performance metrics

API Pipeline SMS Assessment Program

Submission of the Application

Directions for Submission of the Application

Submit all applicable pages of the following items for each of the assessment approaches identified on page 6 for which you are applying:

1. **Part 1 – Application**
2. **Part 2 – Assessment Questionnaire**

Submit completed Applications to:

Electronically to:

Andrew Broadbent – Program Manager
broadbenta@api.org

or

Ryan Meng – Program Associate
mengr@api.org

Application Review

API will contact the individual listed as the Primary Contact on page 12 of the application to review the application. An agreement will then be sent back to the individual identified by the Primary Contact.

1. **Part 1 – Application**
2. **Part 2 – Assessment Questionnaire**



API Pipeline SMS Assessment Program

Part 1 – Application

Please fill out the following information:

1. Legal Company Name: _____
2. Facility Name: _____
(Name of location where assessment is to take place)
3. Pipeline operator's headquarters or main office to participate in the assessment. In general, documents will be sent to Primary Contact (see item 4). Physical location of facility is needed for planning of assessment.
Street Address: _____
(P.O. Box numbers are not acceptable)

City: _____ State/Province: _____
Zip/Postal Code: _____ Country: _____
Website: _____
4. Primary Contact for this Assessment and other API Legal Documents (NOTE: Individual must be an employee / officer of the organization):
Name: _____
Title/Position: _____
Street Address: _____
(P.O. Box if applicable)

City: _____ State/Province: _____
Zip/Postal Code: _____ Country: _____
Telephone Number: _____ Email Address: _____
5. On site Facility Contact Person(s) (Contact person at the facility, if different from the primary contact identified in item 4):
Name: _____
Title/Position: _____
Telephone Number: _____ Email Address: _____
Name: _____
Title/Position: _____
Telephone Number: _____ Email Address: _____



API Pipeline SMS Assessment Program

Part 1 – Application

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API Pipeline SMS Assessment Program

Part 1 – Application (Cont.)

Please fill out the following information:

6. Indicate the size of the operator by work hours based on historical data from the previous reporting year:
Large Medium Small

API Definition of Size:

Small Operator -	< 1.5 million work-hours
Medium Operator -	> 1.5 million < 5 million work-hours
Large Operator -	> 5 million work-hours

If small, please indicate miles of pipeline: _____ miles

7. Approximately how many miles of pipeline does the operator operate? _____ miles
8. What type of product does the operator carry (i.e. liquids, gas, etc.)? If both, approximately how many miles of each?

9. Please provide basic information on the geographic scope of operations (i.e. states, regions, communities, etc.) covered:

10. How many facilities does the Operator operate and which type (i.e., terminals, pumping stations, storage facilities, caverns, etc.) – please list:

11. Are there additional sites/facilities you would like assessors to visit during the assessment? If so, please list:

API Pipeline SMS Assessment Program

Part 1 – Application (Cont.)

12. Indicate the desired assessment approach (see descriptions on page 6):

- General Assessment
- Individual Elements (please mark which elements)
 - _____ Leadership and Management Commitment (Section 5 of RP 1173)
 - _____ Stakeholder Engagement (Section 6)
 - _____ Risk Management (Section 7)
 - _____ Operational Controls (Section 8);
 - _____ Incident Investigation, Evaluation, and Lessons Learned (Section 9)
 - _____ Safety Assurance (Section 10)
 - _____ Management Review and Continuous Improvement (Section 11)
 - _____ Emergency Preparedness and Response (Section 12)
 - _____ Competence, Awareness, and Training (Section 13)
 - _____ Documentation and Record Keeping (Section 14)
- You would like to talk with Program Manager to discuss options

13. Please give us an indication of the time frame you would like this assessment to take place. This can be done by year and/or quarter:
An exact week will be selected once an agreement is executed.

1. General Assessment (includes all 10 Elements)

Year/Quarter: _____

2. An Assessment of any combination of 10 Elements

Year/Quarter: _____



API Pipeline SMS Assessment Program

Part 2 – Assessment Questionnaire

Please respond to the following questions

1. Does the operator have a Safety and Environmental Management System? **Yes** or **No**
 - a. If yes, what is the basis of the management system (e.g. company developed, API RP 1173, ISO 45001/OHSAS 18001, RCMS 14001)? _____
2. Does the operator handle gas distribution? _____
3. Does the operator handle liquids processing and/or transportation to other operators? _____

4. Describe the location of the headquarters of the operator and any other key distribution sites or areas that should be included in the assessment: _____

5. What is the average age of the pipeline(s) to be assessed? _____
6. How many employees are employed by the operator? _____
7. How many regular contractors are at use by the operator? _____
8. Does the facility have a marine facility (e.g. tankers, barges)? **Yes** or **No**
9. Are TWIC Cards required at the site? **Yes** or **No**
10. Are there any current administrative/judicial orders, pending or threatened litigation, unresolved allegations, citations, or notices of violation? **Yes** or **No**
 - a. If yes, please describe: _____

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API Pipeline SMS Assessment Program

Part 2 – Assessment Questionnaire (Cont.)

Please respond to the following questions

11. Do special arrangements need to be made to visit or inspect any of the facilities associated with this site? _____
12. Suggested Name, address, and phone number of hotel for members of the assessment team to use (i.e. Corporate Rate)? _____
13. Does the Operator have a facial hair policy? Yes or No
 - a. If yes, would this policy apply to members of the assessment team? Yes or No
14. Besides basic safety orientation training, are any other special training / requirements required of assessors in order to access the site(s)? Yes or No
 - a. If yes, describe (including duration): _____

15. Are there any special considerations for bringing laptop computers on site (e.g., do the computers need to be “registered”)? _____

16. Does the site have internet access available for the assessors (e.g., local network or guest Wi-Fi)? _____
17. Which of the following personal protective equipment will the facility require of the members of the assessment team, and which will the facility provide?

Equipment	Required	Facility Will Provide
Safety Glasses (with side shields)	Y / N	Y / N
Splash Goggles	Y / N	Y / N
Hard Hats	Y / N	Y / N
Hearing Protection	Y / N	Y / N
Gloves	Y / N	Y / N
Flame Retardant clothing (e.g. Nomex)*	Y / N	Y / N
H2S Monitors	Y / N	Y / N
Safety Shoes	Y / N	Team Member will Provide
Special Instructions		

* Assessors typically have their own but occasionally need to borrow



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API PIPELINE SMS ASSESSMENT PROGRAM

1800 West Loop South
Suite 475
Houston, TX 77027
USA

Main: 281-978-4940
Email: broadbenta@api.org
mengr@api.org
Web: www.api.org/pipelinesms