API-AOPL Pipeline SMS Industry Team

API Voluntary Third Party Audit Introduction & Development overview

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SPEAKERS

- Dave Murk: American Petroleum Institute (API)

- Ann-Marie Kayser: Marathon Petroleum

- Bill Byrd: RCP Inc.

- Aaron Duke: American Petroleum Institute (API)

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AGENDA

- Greeting and API Antitrust statement

- Preface / Introduction

- Evaluation Tool Updates

- Third Party Audit Process
  - Overview
  - Audit Process
  - Audit Teams and Auditors
  - Progress, Timelines, Plans

- Upcoming Pipeline SMS items

- Group discussion – Q&A

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PREFACE

- Part of The Roadmap
  - Next phase of tools to help Operators along their implementation journey
- Evaluation Tool forms the basis of the program
- Voluntary audit process to support PSMS implementation efforts
- Based on current, successful upstream and downstream programs
- Opportunity to track and benchmark Operator and Industry
- One option to address API RP 1173 evaluation and audit requirements
- Designed to apply across industry; flexible and scalable

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Pipeline SMS Tool Roadmap

START

GETTING STARTED

- Study API RP 1173
- Attend workshops
- Consider the benefits
- Talk with peers
- Obtain management committment to API RP 1173 implementation
  - Liquid operators: Commitment Letter
  - AGA members: Commitment to Enhancing Safety
  - INGAA members: Commitment to Pipeline Safety

PLANNING TOOL

- Summary of API RP 1173 requirements (71 questions)
- A gap analysis tool to compare an operator's existing system to the requirements of API RP 1173
- Documents action plans and responsibilities to close gaps
- Helps operators achieve Level 1 maturity (develop a plan, and begin work)

IMPLEMENTATION TOOL

- Summary of API RP 1173 requirements (71 questions)
- Evaluates and summarizes the operator's implementation status by question, element and overall
- Helps operators track development of programs to implement the RP up to Level 3 or 4 maturity

EVALUATION TOOL

- Comprehensive set of questions with ratings for all aspects of API RP 1173
- Helps operators evaluate the effectiveness of their programs in achieving the objectives of the RP (Is it helping?)
- Appropriate at Level 3 maturity or beyond
- Determines Effectiveness score

CONFORMANCE CHECKLIST (all API RP 1173 "shall" statements)

PEER-TO-PEER SHARING APPROPRIATE AT ALL MATURITY LEVELS

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VOLUNTARY API THIRD-PARTY AUDIT PROGRAM

- API-administered audit program for conformance to API RP 1173
- Yields an objective evaluation and score to measure continuous improvement and/or benchmarking
- Appropriate at Level 3 maturity or beyond

EVALUATION TOOL: OVERVIEW

- Evaluates <u>Effectiveness of Implementation</u> and <u>Effectiveness of Results</u>
  - ○ Objective evaluation yielding quantitative results
  - ○ 0 to 5, aligned with the Maturity Model
  - ○ Results can be used for benchmarking
  - ○ Results can be used to track improvement (part of Check cycle in PDCA)
- Tool can be self administered or assessed by a third party
  - ○ Basis of the voluntary API Third Party Audit program
- User Guidance
  - ○ How to use tool, with examples

EFFECTIVENESS OF IMPLEMENTATION

- Implementation Matrix: Questions by element addressing RP requirements; linked to "Shall Statements"
  - Implementation from 0-4
  - Supported with a Conformance Checklist: 234 "shall" statements from the RP, each with additional guidance about Level 3 versus Level 4
- Flexible / Scalable: 50 big / broad questions
  - Auditors / Operator will need to agree on the method(s) to evaluate all applicable aspects of the Operator's organization relevant to each question (how to evaluate the details)

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Effectiveness of Results

- Effectiveness Evaluation: Evaluation of KPI performance
  - Comparative KPI performance versus industry segment averages
    - Positive credit if Operator KPIs better than industry average
    - No credit nor deduction for ~avg.
    - Deductions for KPIs worse than average
    - Smaller operators use multi-year averages for their KPI metrics
  - Automatic deductions for PHMSA-reportable injuries and fatalities
- Effectiveness can add 1 to Implementation Score
  - … or deduct from it

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EVALUATION TOOL: AVAILABILITY

- Tool has been developed and is in testing
- Industry volunteers to test tool
  - Contact pipelinesms@api.org
- Will roll out broadly at June 21 webinar

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QUESTIONS AND ANSWERS

ROADMAP, TOOLS, EVALUATION TOOL

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VOLUNTARY THIRD PARTY AUDIT PROGRAM

- Recognized, consistent industry-wide protocols and process

- Qualified-competent safety management system auditors

- Leveraging existing voluntary API third-party programs
  - Center for Offshore Safety (COS)
  - Process Safety Site Assessment Programs (PSSAP)

- 2018 pilots, beta testing, rollout

- API Global Industry Services — program management
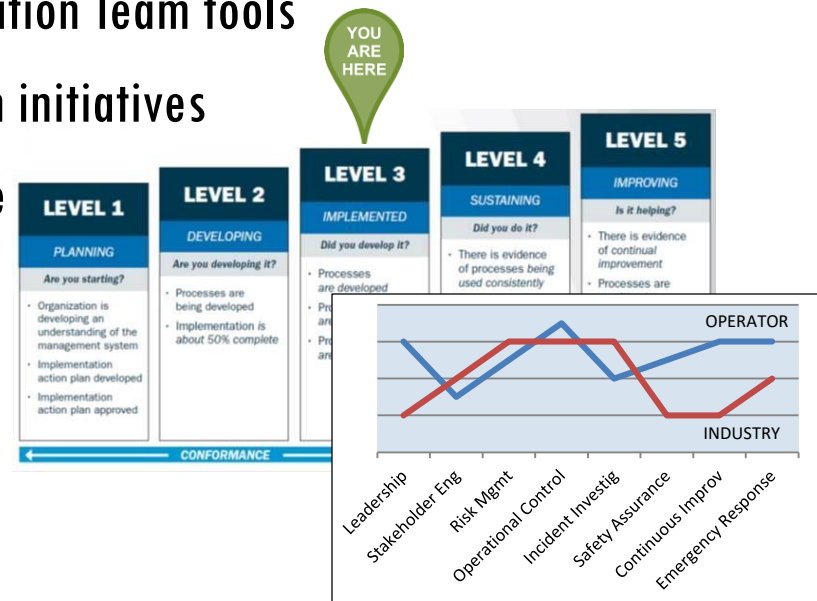
API Global Industry Services

Collaborate with stakeholders to develop programs that **sustain safety, quality, reliability and interchangeability efforts** across the global oil & natural gas industry

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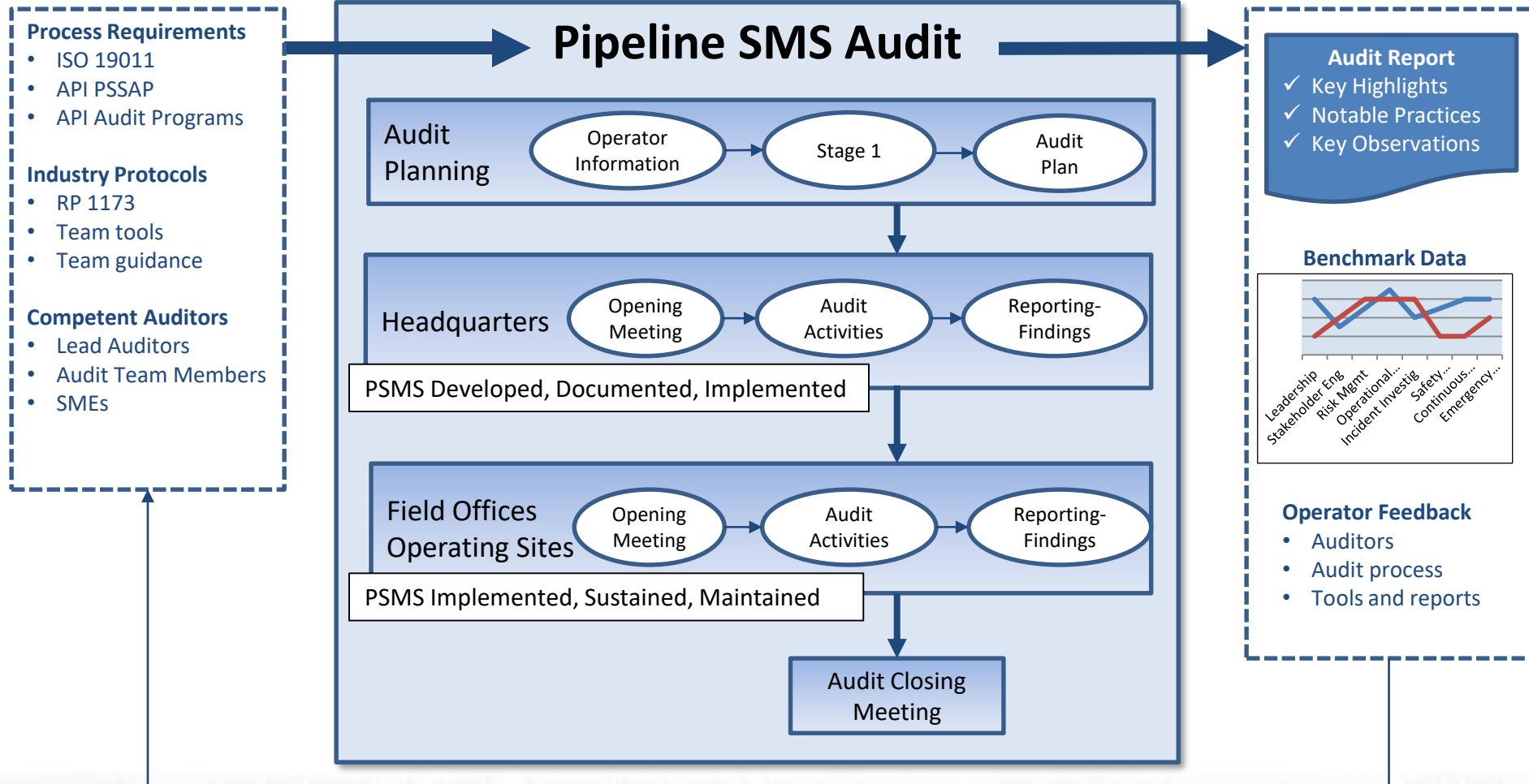GROUP

VOLUNTARY THIRD PARTY AUDIT PROGRAM

Key Considerations

o Voluntary ➠ 1 option to meet RP 1173 option for third party audit

o Protocols consistent with the PSMS Implementation Team tools

o Process supporting PSMS Implementation Team initiatives

o Quantitative measures to monitor performance

o Data for Operator and industry benchmarks

- Voluntary + Anonymous

Each Pipeline SMS Element audited *at least once every three years*

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AUDIT PROCESS

Process Requirements
- ISO 19011
- API PSSAP
- API Audit Programs

Industry Protocols
- RP 1173
- Team tools
- Team guidance

Competent Auditors
- Lead Auditors
- Audit Team Members
- SMEs

Pipeline SMS Audit

Audit Planning
Operator Information → Stage 1 → Audit Plan

Headquarters
Opening Meeting → Audit Activities → Reporting-Findings

PSMS Developed, Documented, Implemented

Field Offices Operating Sites
Opening Meeting → Audit Activities → Reporting-Findings

PSMS Implemented, Sustained, Maintained

Audit Closing Meeting

Audit Report
✓ Key Highlights
✓ Notable Practices
✓ Key Observations

Benchmark Data

Leadership, Stakeholder Eng, Risk Mgmt, Operational..., Incident Investig, Safety..., Continuous..., Emergency...

Operator Feedback
- Auditors
- Audit process
- Tools and reports

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AUDIT TEAMS AND AUDITORS

Audit Teams

o Lead Auditor + Auditors + Subject Matter Experts

o API Staff: Establish & Maintain Competent Auditor Pool; Auditor Training; Operator Communications; Scheduling; Audit Team Selection; Report Data-Records Management; Operator Feedback

Experience, Skills, Knowledge

o SMS Auditing + RP 1173 and/or SMS standards and their application

o Lead Auditor: Pipeline operations; Lead auditing; Effective communicators & managers

o Auditor: Pipeline or similar process operations; Effective communicators

COMPETENCE EVALUATION AND QUALIFICATION PROCESS

| Review-Vet Candidate Info | Interviews & Background Checks | Contracting & Documentation | Performance Observation | PSMS Audit Process Training | Auditor Qualified | Ongoing Evaluation |

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PROGRESS, TIMELINES, PLANS

|	
Finalize Tools, Audit and Reporting Process • Data stewardship	April 2018
Identify-Establish Pool of Auditors • Train Auditors	April-May 2018
Pilot Process and Beta Testing – 2 Phases • Test tools and process • Pilot the full audit process	Late Summer 2018
Launch • Apply lessons learned from pilots (Plan-Do-Check-Act)	Q3 2018

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SUMMARY

- Flexible and scalable — all Operators, gas, liquids

- Sustain Pipeline SMS and Operator implementation efforts
  - Maintain SMS conformity
  - Drive SMS continuous improvement

- Data for benchmarking and reporting

- Measure and demonstrate improvement

Also from API …

- API RP 1173 eLearning Overview — Launching Summer 2018
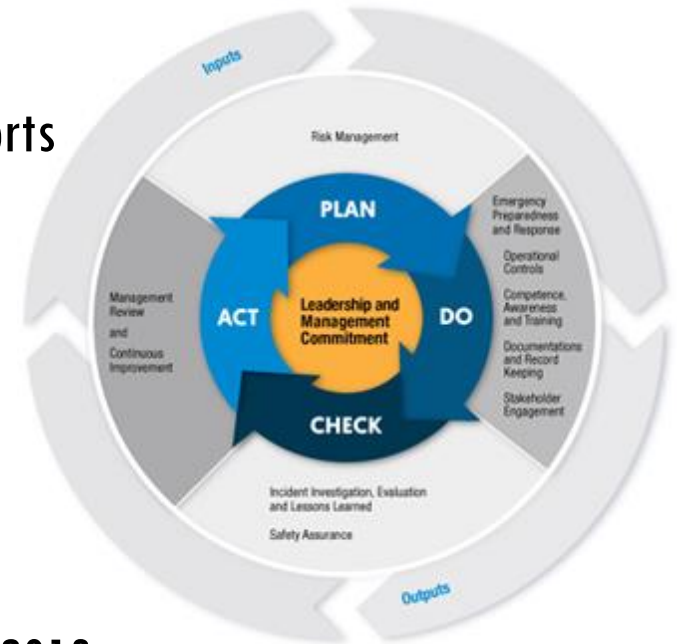
API-AOPL PET, 2017—2019 STRATEGIC GOALS, OBJECTIVES & INITIATIVES
Pipeline Safety Management Systems — Expand Incorporation of Pipeline SMS into Pipeline Operations
Improve Safety Performance and Culture Resulting from Pipeline SMS

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REMINDERS

- Where can I get the tools
  - www.pipelinesms.org
  - Click on "Tools"
  - Click on the phrase "Pipeline SMS Tools"
  - Scroll to the bottom of the page
- Watch for the redesign of the pipelinesms.org website
  - Enhanced user experience

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Upcoming Pipeline SMS Items - Updates

- ONE INDUSTRY. ONE GOAL

- Webinar series
  - Evaluation Tool: June 21, 2018, 11a—12p EST

- 2017 Annual Report
  - Available April 24, 2018 (API Pipeline & Cybernetics Conference)

- Tools Workshop
  - How to Use Tools & Operator Experiences: October 10, 2018, 8a—5p CST
  - San Luis Hotel | 5222 Seawall Blvd. | Galveston, TX

- Volunteers to pilot tools — Contact pipelinesms@api.org

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QUESTIONS AND ANSWERS

THANK YOU

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