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PSMS Program Impact on Safety Culture

South Dakota/North Dakota Pipeline Safety
Operator Training Conference

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Topics to be Covered

Background: Safety Culture and PSMS

How an Effective PSMS Program Impacts Safety Culture

How to Measure Safety Culture

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What is Safety Culture?

"Safety Culture is the collective set of attitudes, values, norms, beliefs, and practices an Operator's employees and Contractor personnel share with respect to risk and safety."

API RP-1173 Introduction – Safety Culture

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PSMS & Safety Culture

"A positive safety culture is essential to an organization's safety performance, regardless of its size or sophistication."

API RP-1173 Introduction – Safety Culture

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PSMS & Safety Culture

"…although a positive safety culture can exist without a formal PSMS, an effective PSMS cannot exist without a positive safety culture. Therefore, Operators should actively work to assess and improve their safety cultures."

API RP-1173 Introduction – Safety Culture

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Safety Climate vs. Safety Culture

When the phrase Safety Survey or Safety Culture Survey is heard, most people think about occupational or personal safety.

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Why is Safety Culture Important?

A positive safety culture influences diligence and intentionality regarding risk, and thereby can reduce human error and failure to follow procedures, which oftentimes leads to incidents.

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PSMS Strengthens Safety Culture

"Establishing Safety as a core value strengthens the overall organization's belief in its importance, acting as a unifying force to improve safety performance."

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PSMS Strengthens Safety Culture

- An effective PSMS depends on the actions of every individual and organizational unit at all levels of the organization.
- Each element contributes to different aspects of the safety culture.
- The PSMS, with all its discrete elements, supports the culture, and the culture feeds back into the management system in a continuous process, yielding an increasingly mature organization.

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PSMS Elements & Their Contributions

1.

   Leadership & Management Commitment

2.

   Stakeholder Engagement

3.

   Risk Management

4.

   Operational Controls

5.

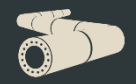
   Incident Investigation, Evaluation, & Lessons Learned

6.

   Safety Assurance

7.

   Management Review & Continuous Improvement

8. 

   Emergency Preparedness & Response

9.

   Competence, Awareness, & Training

10.

    Documentation & Record Keeping

Leadership and Management Commitment

Incentives, Stop Work Authority, Lessons Learned & Walk the Talk

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Stakeholder Engagement

It ‘heightens a sense of vigilance’ regarding the identification & communication of risks.

Risk Management

See something – say something.

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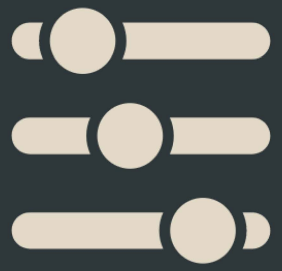

Operational Controls

Ensures the safe performance of the *pipeline system.*

Incident Investigation, Evaluations, & Lessons Learned

Create a safe place that employees & contractors speak up.

Safety Assurance

Evaluations, employee engagement, and reporting of feedback, ALL culture.

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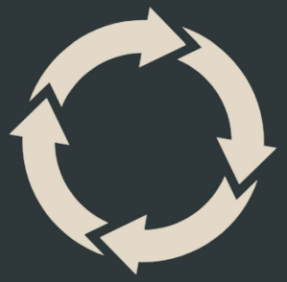

Management Review & Continuous Improvement

Management Commitment + PDCA = Priority of Safety

PSMS Elements & Their Contributions

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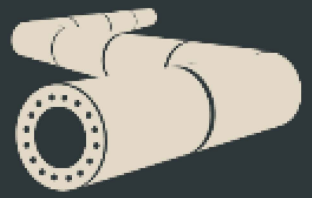
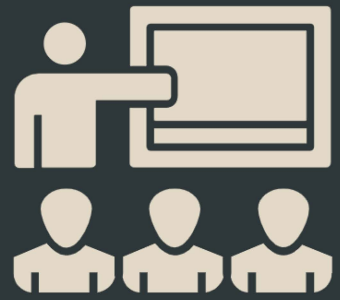


Emergency Preparedness & Response

Provides a realistic sense of vulnerability & enhanced vigilance.



Competency, Awareness, & Training

Offer the support that employees and contractors need.

Documentation & Record Keeping

If you didn't document it, you didn't do it!

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Assessing Safety Culture

"The pipeline Operator shall establish methods to evaluate the safety culture of its organization."

API RP-1173 Section 10.2.4

4 Steps to Assessing Safety Culture

Review of Operator Policies, Procedures, & Documentation

Employee Perception Survey

Field Observations

Analysis of Results for Alignment

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Step 1

Review of Operator Policies, Procedures, and Documentation

Review Operator Policies, Procedures, & Documentation of Communications:

- Safety Priority & Accountability
- Non-punitive Reporting
- Questioning & Learning
- Incentives/Compensation
- Communications: Transparency & Reporting
- Lessons Learned & Near Misses
- PSMS Program
- Stop Work Authority
- Governance & Risk Management

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Step 2

Employee Perception Survey

Important Aspects of a Safety Culture Survey

- Measures perception of positive and negative safety culture indicators
- Results in a Numeric score with visual dashboards
- Establishes a baseline for comparison to future surveys
- Anonymous

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Positive

- Safety Priority
- Accountability
- Empowerment & Ownership
- Communication/Transparency
- Procedural Compliance
- Employee Satisfaction
- Inspires, Enables, & Nurtures Change When Necessary
- Promotes a Questioning & Learning Environment
- Encourages Non-Punitive Reporting

Negative

- Complacency
- Fear of Reprisal
- Over Confidence
- Normalization of Deviance
- Tolerance of Inadequate Systems and Resources
- Production Pressure

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Step 3

Field Observations

Field Observations:

- Employee Interviews
- Focus Groups
- Job Site Visits - Watch

Confirm Policies & Procedures are Followed

Validate Employee Survey Perceptions

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Step 4

Analysis of Results for Alignment

Analysis of evidence gathered from:

- Policies, Procedures, & Documentation Review (What Company Says)
- Employee Perception Survey (What Employees Perceive)
- Field Observations (What is Actually Occurring)

Determine Alignment

Identify Gaps & Opportunities

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Portal Dashboard

Each Survey Question Tied to One Element

Each Survey Question Tied to Two Safety Culture Indicators

Safety Culture Survey Scoring

7.2	7.1	6.4	7.5	5.7
Leadership & Management Commitment	Stakeholder Engagement	Risk Management	Operational Controls	Incident Investigation & Lessons Learned
6.6	5.5	5.2	4.1	6.1
Safety Assurance	Management Review & Continuous Improvement	Emergency Preparedness & Response	Competence, Awareness, & Training	Documentation & Record Keeping

Overall Safety Culture Score

6.5

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