

## Recommended Practice (RP) 1173: A Systemic Approach to Pipeline Safety Management Systems (PSMS)

Developed and published in 2015, ANSI/API's *Recommended Practice (RP) 1173 Pipeline Safety Management Systems*, provides pipeline operators with a systemic and systematic approach to pipeline operations safety management, effective organizational leadership and management practices, and pre-emptive and protective risk management strategies.

RP 1173 focuses on eleven elements that enhance the prudent, environmentally protective, and effective pipeline safety management processes found in many successful and efficient pipeline safety management systems (PSMS).

The eleven elements in RP 1173 emphasize the pipeline operator's commitment to: safety management practices; effective and transparent communications strategies for management and internal and external stakeholders; documentation of policies, procedures, and processes; and, focus on proactive and preventative risk management strategies, operational controls, continuous improvement tactics based on evaluation of the PSMS, and the application of operational lessons learned.

The eleven elements include:

- Leadership and Management Commitment
- Stakeholder Engagement
- Risk Management
- Operational Controls
- Incident Investigation, Evaluation, and Lessons Learned
- Safety Assurance
- Management Review and Continuous Improvement
- Emergency Preparedness and Response
- Competence, Awareness, and Training
- Documentation and Record Keeping
- Execution of the Pipeline Safety Management System (PSMS)

The key element—on which successful and effective implementation of the PSMS depends—is a steadfast and demonstrated commitment of leaders and management to the development and implementation of the Pipeline Safety Management System and a “culture of safety.” In

order to develop and exhibit this commitment to encourage a safety culture—throughout the organization—leaders will have to “lead by example.”

A fundamental aspect for the implementation of these recommended practices is the commitment to transparent and multi-directional communication between leaders, management, and internal and external stakeholders. Leaders and management must continuously communicate their commitment to the implementation and practices of the PSMS. Internal and external shareholders must be assured that they can freely communicate their ideas up and down the chain, and that they can also reveal—without fear of reprisal—incidents, risks, or potential risks with pipeline operations.

All policies, procedures, processes, and practices of the PSMS must be documented and the documentation must be comprehensible, reviewed, approved for use, and available to all who need them. Effective documentation: ensures that everyone in the organization understands what is to be done; eliminates questions and confusion; and, helps to confirm that all are headed in the same direction. “If it is not documented, it did not happen,” is a common belief in many organizations.

The implementation—or improvement—of any pipeline safety management system requires that all personnel are: fully aware of the plans and operations of the PSMS; competent—based on their experience; and, well trained to carry out the operational aspects of the PSMS. Employees and contractors must be knowledgeable and have the skills and abilities to develop, implement, and improve the elements of the PSMS.

Ultimately, the successful implementation of any pipeline safety management system will depend on the successful integration of all the elements contained within the system. Leaders must lead. Communications must be multi-directional and transparent. Operational controls must be well-defined. Safety and risk management must be paramount, proactive, and preventative. Employees and contractors must be aware, competent, and well-trained. Policies, procedures, and processes must be documented. Emergency plans and procedures must be in place and communicated to all. Internal and external shareholders must have a voice. Incidents must be evaluated, and lessons learned must be applied. And, all of this must be continuously evaluated and improved upon. Integration of the elements suggested in RP 1173 help to ensure safe, risk averse, and environmentally sound pipeline operations through the systemic and systematic implementation of the eleven elements outlined in the recommended practice.

Recommended Practice (RP) 1173 is not a mandated set of pipeline operational safety practices. It is a recommendation for systemic safety management, operational controls, risk management, transparent communications, and safety policies and processes to be put into place to enhance and improve current pipeline safety management systems.