

RP 1133



Pipeline SMS

API RECOMMENDED PRACTICE FOR MANAGING HYDRO-TECHNICAL HAZARDS FOR PIPELINES LOCATED ONSHORE OR WITHIN COASTAL ZONES

A Pipeline Safety Management System

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Significance of New Document

API Recommended Practice (RP) 1133 was recently expanded to address risk-based analysis and management of water crossings to prevent and mitigate loss of cover, or “scour.” Best practices, based on industry learnings and successes, were incorporated, including:

- Inspection methods and frequencies to determine depth of cover and to identify pipelines that may be susceptible to hazards
- Permanent mitigation actions to address indications of loss of cover, such as horizontal directional drills (HDD), trenched crossings below scour depth, and various methods for erosion control and bank stabilization
- Real-time monitoring of flood events and the establishment of proactive flow rate triggers for assessing seasonal runoff levels that could result in a loss of cover
- Pipeline integrity management programs using in-line inspection tools, (often referred to as “smart pigs”) to identify dents or other anomalies that may create a weakness in the pipe

- Continuous monitoring of pipeline pressures and flow rates that could signal a loss of integrity
- Effective placement of valves to protect environmentally sensitive areas and mitigate potential releases
- Pipeline integrity management programs with in-line inspection, or “smart pig” tools, to scan for dents or other anomalies on pipelines at or near water courses
- Constant leak detection practices to detect changes in pipeline pressure or flow rates

The Audience for API RP 1133 Includes

Owners/operators, engineering service providers, and others involved in managing integrity of pipelines crossing or near waterways.

The Impact of Implementing API RP 1133

In the United States, pipelines cross rivers, water bodies and coastal areas in one of the following ways:

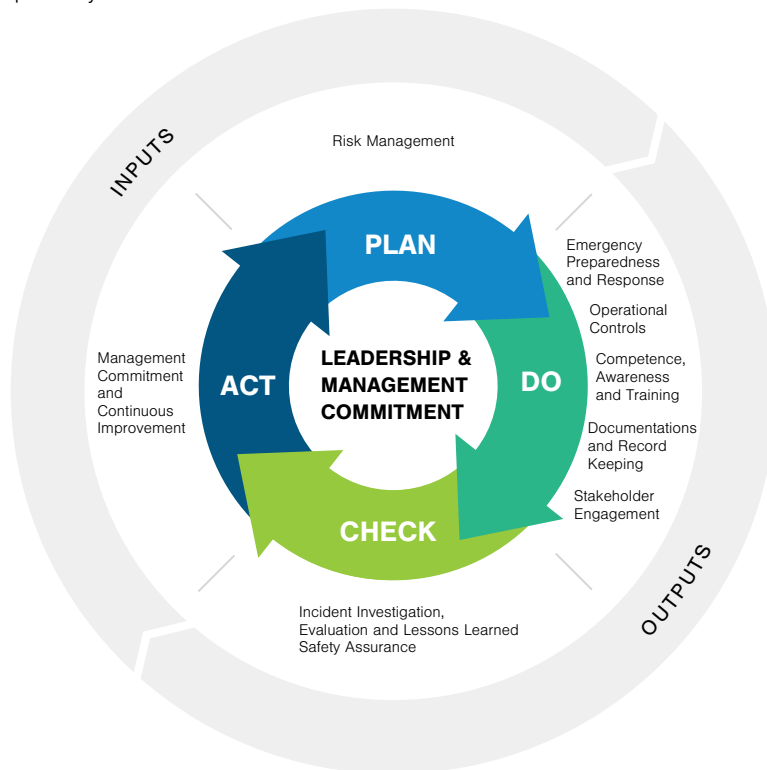
- Buried in deep trenches below a river bottom
- Directionally drilled many feet beneath the floor of a river, stream or body of water
- Installed on bridges or other man-made structures high above the water surface

The pipeline industry is committed to public safety and protecting the environment. As part of these efforts, operators execute enhanced safety and integrity programs in environmentally-sensitive areas, including onshore waterways and coastal areas. In API RP 1133, industry now has guidance that can be instituted to comply with their commitment to operate responsibly.

Stockholders Collaborating to Improve Safety

API documents standardize and disseminate best practices across the industry

- Developed via open, accredited processes, with formal review and comment periods;
- Provide all operators with the benefits of the industry's combined expertise in critical areas; and
- Once adopted and implemented, establishes standard practices across the industry.



*America's Pipeline Industry:
Focused on Zero Incidents, Committed to Continuous Improvement*