Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems

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1 Scope

1.1 General Application

1.1.1 Coverage

API 570 covers inspection, rating, repair, and alteration procedures for metallic piping systems and their associated pressure-relieving devices (PRDs) that have been placed in-service. This inspection code applies to all hydrocarbon and chemical process piping covered in 1.2.1 that have been placed in-service unless specifically designated as optional per 1.2.2. This publication does not cover inspection of specialty equipment including impulse tubing, sensory tubing or tubing associated with instrumentation, exchanger tubes, and control valves. However, this piping code could be used by owner-operators in other industries and other services at their discretion.

Process piping systems that have been decommissioned from service and abandoned in place are no longer covered by this in-service inspection code. However, abandoned in place piping may still need some amount of inspection and/or risk mitigation to ensure that it does not become a safety hazard due to continued deterioration. Process piping systems that are temporarily out of service or idled but have been mothballed (preserved for potential future use) are still covered by this code.

1.1.2 Intent

The intent of this code is to specify the in-service inspection and condition-monitoring program, as well as repair guidance that is needed to determine and maintain the ongoing integrity of piping systems. That program should provide reasonably accurate and timely assessments to determine if any changes in the condition of piping could possibly compromise continued safe operation. It is also the intent of this code that owner-operators shall respond to any inspection results that require corrective actions to ensure that the continued integrity of piping is consistent with appropriate risk analysis. API 570 is intended for use by organizations that maintain or have access to an authorized inspection agency, a repair organization, and piping engineers, inspectors, and examiners, all as defined in Section 3.

This code does not cover source inspection of newly fabricated pressure piping. Refer to API 588 for guidance on the surveillance of supplier vendors fabricating and/or repairing pressure piping that will be installed on-site. Owner-operators may engage the services of individuals qualified and certified in accordance with API 588 or this code.

However, inspections after new piping systems arrive on-site may still be needed at owner-operator option depending upon quality of shop inspection services and owner-operator specifications during fabrication.

1.1.3 Limitations

API 570 shall not be used as a substitute for the original construction requirements governing a piping system before it is placed in-service; nor shall it be used in conflict with any prevailing regulatory requirements. If the requirements of this code are more stringent than the regulatory requirements, then the requirements of this code shall govern.

1.2 Special Applications

1.2.1 Included Fluid Services

Except as provided in 1.2.2, API 570 applies to piping systems for process fluids that are hazardous to personnel, such as hydrocarbons, and similar flammable or toxic fluid services and processes.