

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

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

## 1 Scope

### 1.1 General Application

#### 1.1.1 Coverage

API 570 covers inspection, rating, repair, and alteration procedures for metallic and fiberglass-reinforced plastic (FRP) piping systems and their associated pressure relieving devices 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 instrumentation, exchanger tubes and control valves. However, this piping Code could be used by owner/users in other industries and other services at their discretion.

Process piping systems that have been retired 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 assure that it does not become a process safety hazard because of continuing deterioration. Process piping systems that are temporarily out of service 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 on-going 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/users shall respond to any inspection results that require corrective actions to assure the continued integrity of piping 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 technically qualified piping engineers, inspectors, and examiners, all as defined in Section 3.

#### 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 Specific Applications

The term non-metallics has a broad definition but in this Code refers to the fiber reinforced plastic groups encompassed by the generic acronyms FRP (fiberglass-reinforced plastic) and GRP (glass-reinforced plastic). The extruded, generally homogenous non-metallics, such as high and low-density polyethylene are not specifically covered by this Code. Refer to API 574 and MTI 129 for guidance on degradation and inspection issues associated with FRP piping.