

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

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## Contents

	Page
<b>1</b>	<b>Scope</b> . . . . . <b>1</b>
<b>1.1</b>	<b>General Application</b> . . . . . <b>1</b>
<b>1.2</b>	<b>Specific Applications</b> . . . . . <b>2</b>
<b>1.3</b>	<b>Fitness-For-Service (FFS) and Risk-Based Inspection (RBI)</b> . . . . . <b>2</b>
<b>2</b>	<b>Normative References</b> . . . . . <b>2</b>
<b>3</b>	<b>Terms, Definitions, Acronyms, and Abbreviations</b> . . . . . <b>4</b>
<b>3.1</b>	<b>Terms and Definitions</b> . . . . . <b>4</b>
<b>3.2</b>	<b>Acronyms and Abbreviations</b> . . . . . <b>16</b>
<b>4</b>	<b>Owner/User Inspection Organization</b> . . . . . <b>18</b>
<b>4.1</b>	<b>General</b> . . . . . <b>18</b>
<b>4.2</b>	<b>Authorized Piping Inspector Qualification and Certification</b> . . . . . <b>18</b>
<b>4.3</b>	<b>Responsibilities</b> . . . . . <b>18</b>
<b>5</b>	<b>Inspection, Examination, and Pressure Testing Practices</b> . . . . . <b>22</b>
<b>5.1</b>	<b>Inspection Plans</b> . . . . . <b>22</b>
<b>5.2</b>	<b>RBI</b> . . . . . <b>24</b>
<b>5.3</b>	<b>Preparation for Inspection</b> . . . . . <b>25</b>
<b>5.4</b>	<b>Inspection for Types and Locations of Damage Modes of Deterioration and Failure</b> . . . . . <b>26</b>
<b>5.5</b>	<b>General Types of Inspection and Surveillance</b> . . . . . <b>28</b>
<b>5.6</b>	<b>CMLs</b> . . . . . <b>31</b>
<b>5.7</b>	<b>Condition Monitoring Methods</b> . . . . . <b>33</b>
<b>5.8</b>	<b>Corrosion Under Insulation Inspection</b> . . . . . <b>36</b>
<b>5.9</b>	<b>Mixing Point Inspection</b> . . . . . <b>36</b>
<b>5.10</b>	<b>Injection Point Inspection</b> . . . . . <b>37</b>
<b>5.11</b>	<b>Pressure Testing of Piping Systems</b> . . . . . <b>38</b>
<b>5.12</b>	<b>Material Verification and Traceability</b> . . . . . <b>40</b>
<b>5.13</b>	<b>Inspection of Valves</b> . . . . . <b>41</b>
<b>5.14</b>	<b>In-service Inspection of Welds</b> . . . . . <b>42</b>
<b>5.15</b>	<b>Inspection of Flanged Joints</b> . . . . . <b>43</b>
<b>6</b>	<b>Interval/Frequency and Extent of Inspection</b> . . . . . <b>43</b>
<b>6.1</b>	<b>General</b> . . . . . <b>43</b>
<b>6.2</b>	<b>Inspection During Installation and Service Changes</b> . . . . . <b>44</b>
<b>6.3</b>	<b>Piping Inspection Planning</b> . . . . . <b>44</b>
<b>6.4</b>	<b>Extent of Visual External and CUI Inspections</b> . . . . . <b>48</b>
<b>6.5</b>	<b>Extent of Thickness Measurement Inspection and Data Analysis</b> . . . . . <b>49</b>
<b>6.6</b>	<b>Extent of Inspections on Small-bore Piping, Deadlegs, Auxiliary Piping, and Threaded Connections</b> . <b>51</b>
<b>6.7</b>	<b>Inspection and Maintenance of Pressure-relieving Devices (PRDs)</b> . . . . . <b>53</b>
<b>7</b>	<b>Inspection Data Evaluation, Analysis, and Recording</b> . . . . . <b>54</b>
<b>7.1</b>	<b>Corrosion Rate Determination</b> . . . . . <b>54</b>
<b>7.2</b>	<b>Remaining Life Calculations</b> . . . . . <b>55</b>
<b>7.3</b>	<b>Newly Installed Piping Systems or Changes in Service</b> . . . . . <b>55</b>
<b>7.4</b>	<b>Existing and Replacement Piping</b> . . . . . <b>56</b>
<b>7.5</b>	<b>MAWP Determination</b> . . . . . <b>56</b>
<b>7.6</b>	<b>Required Thickness Determination</b> . . . . . <b>56</b>
<b>7.7</b>	<b>Assessment of Inspection Findings</b> . . . . . <b>57</b>
<b>7.8</b>	<b>Piping Stress Analysis</b> . . . . . <b>57</b>
<b>7.9</b>	<b>Reporting and Records for Piping System Inspection</b> . . . . . <b>58</b>

## Contents

	Page
7.10 Inspection Recommendations for Repair or Replacement .....	60
7.11 Inspection Records for External Inspections .....	61
7.12 Piping Failure and Leak Reports .....	61
7.13 Deferral of Inspections, Examinations, and Tests .....	61
<b>8 Repairs, Alterations, and Rerating of Piping Systems .....</b>	<b>62</b>
8.1 Repairs and Alterations .....	62
8.2 Welding and Hot Tapping .....	65
8.3 Re-rating .....	70
<b>9 Inspection of Buried Piping .....</b>	<b>71</b>
9.1 General .....	71
9.2 Above-grade Visual Surveillance .....	71
9.3 Close-interval Potential Survey .....	71
9.4 Pipe Coating Holiday Survey .....	72
9.5 Soil Resistivity .....	72
9.6 Cathodic Protection Monitoring .....	72
9.7 Inspection Methods .....	72
9.8 Frequency and Extent of Inspection .....	73
9.9 Repairs to Buried Piping Systems .....	74
9.10 Records .....	75
<b>Annex A (informative) Inspector Certification .....</b>	<b>76</b>
<b>Annex B (informative) Requests for Interpretations .....</b>	<b>78</b>
<b>Annex C (informative) Examples of Repairs .....</b>	<b>79</b>
<b>Annex D (informative) Two Examples of the Calculation of MAWP Illustrating the Use of the Corrosion Half-life Concept .....</b>	<b>80</b>
<b>Bibliography .....</b>	<b>82</b>
<b>Figures</b>	
1 Typical Injection Point Piping Circuit .....	38
C.1 Encirclement Repair Sleeve .....	79
C.2 Small Repair Patch .....	80
<b>Tables</b>	
1 Recommended Maximum Inspection Intervals .....	45
2 Recommended Extent of CUI Inspection Following Visual Inspection for Susceptible Piping .....	48
3 Welding Methods as Alternatives to Post-weld Heat Treatment Qualification Thickness for Test Plates and Repair Grooves .....	68
4 Frequency of Inspection for Buried Piping Without Effective Cathodic Protection .....	74

# 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 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/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.