Inspection of Fired Boilers and Heaters

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Contents

1 Scope 1

2 Normative References 1

3 Terms, Definitions, and Acronyms 2
3.1 Terms and Definitions 2
3.2 Acronyms and Abbreviations 8

4 Common Heater and Boiler Designs 9
4.1 Types of Heaters 9
4.2 Types of Boilers 15

5 Heater, Furnace, and Boiler Mechanical Reliability 21
5.1 Integrity Reliability Programs 21
5.2 Potential Consequences of a Tube Rupture 23
5.3 Purpose of Inspection 24
5.4 Inspection of Fired Boilers 24
5.5 Inspection of Fired Heaters and Furnaces 24
5.6 Inspector Qualifications 25
5.7 Corrosion Control Documents (CCDs) 25

6 Damage Mechanisms 25
6.1 Deterioration of Tubes 25
6.2 Deterioration of Boiler Tubes 38
6.3 Damage Mechanisms of Other Components 42
6.4 Idle Period Planning 47

7 Frequency and Timing of Inspections 48
7.1 General 48
7.2 Boiler Inspection Frequency 48
7.3 Heater Inspection Frequency 48

8 Safety Precautions, Preparatory Work, and Cleaning 49
8.1 Safety 49
8.2 General Preparatory Work 49
8.3 Precautions to Avoid PTA SCC in Stainless Steel Tubes 51
8.4 Cleaning 51

9 Outage Inspection Programs 51
9.1 General 51
9.2 Visual Inspection of Heating Coils 54
9.3 Wall Thickness Measurements 62
9.4 Tube Diameter, Circumference, Sag, and Bow Measurements 64
9.5 Pit Depth Measurements 67
9.6 Intelligent Pigs and In-line Inspection Devices 68
9.7 Radiographic Examination 69
9.8 Borescope and Videoprobe 69
9.9 Hardness Measurements 70
9.10 Dye Penetrant (PT) and Magnetic Particle Examination (MT) 71
9.11 In Situ Metallography and Replication 71
9.12 Detailed Examination and Destructive Testing of Tube Samples 71
9.13 Testing of Tubeskin Thermocouples 72
9.14 Magnetic Test for Carburization 72
9.15 Hammer Testing 73
9.16 Inspection of Steam-methane Reformer Tubes 73
9.17 Inspection of Pigtails 76

10 Boiler Outage Inspection **76**
10.1 General **76**
10.2 Piping **76**
10.3 Drums **77**
10.4 Water Headers **79**
10.5 Superheater Header **79**
10.6 Tubes **80**

11 Onstream Inspection Programs **82**
11.1 General **82**
11.2 Typical Inspection Activities **82**
11.3 External Tube Cleaning **86**
11.4 Pre-shutdown Inspection **86**

12 Tube Reliability Assessment **86**
12.1 General **86**
12.2 Minimum Thickness and Stress Rupture **87**
12.3 Creep Rupture Life **89**

13 Method of Inspection for Foundations, Settings, and Other Appurtenances **90**
13.1 Foundations **90**
13.2 Structural Supports **90**
13.3 Setting, Exterior, and Casing **91**
13.4 Refractory Linings and Insulation **92**
13.5 Tube Supports **93**
13.6 Visual Inspection of Auxiliary Equipment **95**
13.7 Stacks **100**

14 Repairs **104**
14.1 Heaters and Furnaces **104**
14.2 Boilers **104**
14.3 Materials Verification **104**

15 Records and Reports **105**
15.1 Retention **105**
15.2 Contents **105**

Annex A (informative) **Example Inspection Checklists for Heaters and Boilers** **106**

Annex B (informative) **Examples of Heater Inspection Records** **114**

Annex C (informative) **Example Stack Inspection Record** **124**

Annex D (informative) **Parameters for Integrity Operating Windows in Fired Heaters** **125**

Annex E (informative) **Cleaning Methods** **127**

Bibliography **130**

Figures

1 Typical Heater Types **10**
2 Box-type Heater with Horizontal Tube Coil Showing Main Components **12**
3 One Type of Steam-methane Reforming Furnace **13**
4 Typical Vertical Oil or Gas-fired Water Tube Boiler **16**
5 Another Variation of a Two-drum Bent Tube Boiler **17**
6 Typical Carbon Monoxide Boiler **18**

7 Tubular and Plate Air Preheaters 19
8 Types of Regenerative Air Preheaters 20
9 Inside Diameter (ID) of Fireside Portion of Tube Showing Severe Corrosion 28
10 Convective Tube Failure from Internal, High-temperature Sulfidic Corrosion 29
11 General Metal Loss and Pitting of Tubes Exposed to Moisture and Corrosive Deposits During Idle Periods 30
12 Roof Tubes Sagged as a Result of Failed Tube Hangers 31
13 Changes in Magnetic Permeability Caused by Chromium Depletion 35
14 Localized Tubing Wall Loss Caused by Caustic Gouging 38
15 Boiler Tube Showing Penetration of the Tube Wall by a Localized Oxygen Pit 39
16 Short-term Boiler Tube Failure Caused by Waterside Deposits, Subsequent Overheating, and Final Bulging of the Tube Wall 40
17 Longer-term Boiler Tube Failure Caused by Poor Circulation and Subsequent Overheating, Oxidation, and Final Failure by Stress Rupture 40
18 Dew Point Corrosion from Flue Gas Corrosion on Radiant Section Header Box 43
19 Bulged Tube 55
20 Bulged and Split Tube 55
21 Scaled Tube 56
22 Oxidized Tube 56
23 Split Tube 57
24 External Corrosion 57
25 Fitting and Tube that Have Leaked in the Roll 58
26 Corrosion/Erosion of the Annular Space in a Streamlined Fitting 60
27 Corrosion of U-bends 61
28 Spreading and Poor Fit of a Horseshoe Holding Section 62
29 Tube Damage Caused by Mechanical Cleaning Equipment 66
30 Eccentric Corrosion of a Tube 67
31 Intelligent Pig Positioned in Short Radius 1D × 180° Return Bend 69
32 Spot-type and Pit-type Corrosion 70
33 Laser Profilometry Results 74
34 Interior Surface of a Tube Damaged by Operating a Tube Cleaner Too Long in One Place 80
35 Infrared Thermography Identifying a Local Hot Spot on Tubes 84
36 Infrared Thermography Identifying a Hot Coil 85
37 Sample Locations for Tell-tale Holes on Heater Tubes 86
38 Plug-type Tube Fittings 88
39 Yielding and Creep of a Tube Support Connection 94
40 Corrosion Products from Acid Condensation Plug Tubes in Air Preheater 97
41 Improper Burner Tile Installation Leads to Poor Flame Pattern 99
42 Self-supporting Steel Stack 102
B.1 Sample of Tube Layout Drawing 115
B.2 Sample of Tube Inspection History 116
B.3 Sample of Tube Inspection Record (Tubes Calipered) 118
B.4 Sample of Tube Inspection Record (Instrument Calipered) 119
B.5 Sample of Tube Renewal Record 121
B.6 Sample of Field Work and Record Sheet (Tube Rolling) 122
B.7 Sample Record of Heater Fitting Inspection and Replacement 123

Tables

1 Common Heater Tube Metallurgies 15
2 Tube Damage Mechanisms Common to Specific Services 26
3 Recommended Inspection and Acceptance Criteria for Damage Mechanisms 53
4 Tube Support Materials Specifications Maximum Design Temperature 94
A.1 Fired Heater Internal and External Inspection Checklist 107
A.2 Water Tube Boiler Inspection Checklist 109
A.3 Fire Tube Boiler Inspection Checklist 111
A.4a Fired Heater Operator Rounds Checklist (Checklist I) 112
A.4b Fired Heater Operator Rounds Checklist (Checklist II) 113

Inspection of Fired Boilers and Heaters

1 Scope

This recommended practice (RP) covers the inspection practices for fired boilers, process heaters, and furnaces used in petroleum refineries and petrochemical plants. The practices described in this document are focused to improve equipment reliability and plant safety. The intent is to provide inspection practices that accurately capture appropriate data, both onstream and off-stream, to assess current and future performance of the equipment.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Standard 530, *Calculation of Heater-tube Thickness in Petroleum Refineries*

API Recommended Practice 538, *Industrial Fired Boilers for General Refinery and Petrochemical Service*

API Standard 560, *Fired Heaters for General Refinery Service*

API Recommended Practice 571, *Damage Mechanisms Affecting Fixed Equipment in the Refining Industry*, Third Edition

API Recommended Practice 572, *Inspection Practices for Pressure Vessels*

API Recommended Practice 578, *Guidelines for a Material Verification Program (MVP) for New and Existing Assets*

API Standard 579-1/ASME [1] FFS-1, *Fitness-For-Service*

API Recommended Practice 580, *Elements of a Risk-Based Inspection Program*

API Recommended Practice 584, *Integrity Operating Windows*

API Recommended Practice 585, *Pressure Equipment Integrity Incident Investigation*

API Standard 936, *Refractory Installation Quality Control—Inspection and Testing Monolithic Refractory Linings and Materials*

API Recommended Practice 939-C, *Guidelines for Avoiding Sulfidation (Sulfidic) Corrosion Failures in Oil Refineries*

API Recommended Practice 941, *Steels for Hydrogen Service at Elevated Temperatures and Pressures in Petroleum Refineries and Petrochemical Plants*

API Recommended Practice 970, *Corrosion Control Document Systems*

[1] ASME International, Two Park Avenue, New York, NY 10016, www.asme.org.