Design and Fabrication of Coke Drums and Peripheral Components in Delayed Coking Units

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Contents

Page

1 Scope 1

2 Normative References 1

3 Terms, Definitions, and Abbreviations 1
3.1 Terms and Definitions 2
3.2 Abbreviations 3

4 Background 3
4.1 General Information 3
4.2 API Survey of Experience 5

5 Design Considerations 9
5.1 General 9
5.2 Design Approaches 9
5.3 Materials Selection Including Plate Material, Welding Consumables, and Cladding 10
5.4 Thickness Considerations 13
5.5 Fatigue Design Considerations 14
5.6 Skirt and Vessel Support Details 15
5.7 Insulation Details (Including Hot Box Details) 19
5.8 Tolerances for New Coke Drums 25

6 Fabrication 27
6.1 General 27
6.2 Weld Joint Design Details, Including Finishing 27
6.3 Clad Restoration Welds 27
6.4 Weld Properties 28
6.5 PWHT Practices 28
6.6 QA and QC Methods 31

7 Initial Inspection and Monitoring 33
7.1 General Inspection Considerations 33
7.2 Baseline Inspection Considerations 33
7.3 Initial Placement of Strain Gages and Thermocouples to Monitor Drum Damage 33

8 Peripheral Equipment 34
8.1 General 34
8.2 Feed Nozzle Location/Details 34
8.3 Top and Bottom Unheading Design 35
8.4 Foundation Bolting 36

Bibliography 37

Figures

1 Typical Drum Heating and Cooling Cycle 4
2 Correlation Between Drum Shell Diameter (D), Thickness (t), D/t Ratio Versus Time to Bulging 8
3 Typical Plate Layout to Minimize Plate Strength and Thickness Mismatch 12

Contents

Page

4 Typical Skirt-to-Shell Fillet Weld Detail Used in Earlier Drum Construction 16
5 Skirt-to-Shell Detail of a Modified Fillet Weld with an Internal Weld Crotch Radius to Reduce Stress at the Weld 16
6 Forged Skirt-to-Shell Attachment Detail Removes Welds from High-Stress Areas 17
7 Skirt-to-Shell Attachment Weld is Moved up on the Shell from the Tangent Line to Remove the Weld from the High-Stress Area 17
8 Typical Details for Coke Drum Skirt Keyholes 18
9 General Details for the Insulation System on Coke Drums 20
10 Insulation Support System with Pins/Studs Welded to the Shell, Heads, and Cones 21
11 Insulation Support System with Clips Welded to the Shell With Segmented Rings Connected to the Clips by Bolts 22
12 Insulation Support System with Clips Welded to the Shell Supporting Floating Rings 22
13 Insulation Support System with Bird Cage-Type Supports with a Floating Ring 23
14 Typical “Hot Box” Insulation Details at the Skirt-to-Shell Connection 24
15 Typical Tolerances Specified for Coke Drums 26

Tables

1 Primary Source of Information or Control Document for General Categories of Information on Coke Drums and Peripheral Components 1

Design and Fabrication of Coke Drums and Peripheral Components in Delayed Coking Units

1 Scope

This technical report (TR) includes information on the practices used by industry practitioners in the design and fabrication of coke drums and peripheral components in delayed coking units. The information is general and does not reflect specific details associated with a particular design offered by licensors of delayed coking technology. For details associated with the design offered by a licensor or services provided by contractors, the licensor or contractor should be consulted for guidance and recommendations for their design details and operating guidance.

Note that degradation mechanisms, inspection, repair, and operating practice effects on drum reliability that were in the First Edition of this TR are now in API Technical Report 934-J. Going forward, API 934-G will pertain to new drum design and fabrication, while API 934-J will pertain to in-service issues for existing drums. See Table 1 for a summary of the information categories.

Table 1—Primary Source of Information or Control Document for General Categories of Information on Coke Drums and Peripheral Components

Information Category	Control Document
General information on delayed coking	API 934-G and API 934-J
Results of past industry surveys of coke drums	API 934-G
Description of damage types for coke drums	API 934-J
Design	API 934-G
Materials selection	API 934-G
Fabrication	API 934-G
Operating practices	API 934-J
Inspection associated with finding and characterizing damage	API 934-J
Inspection associated with repairs	API 934-J
Damage assessment	API 934-J
Repairs	API 934-J
Welding considerations	API 934-J
Life extension	API 934-J

This document is a technical report and as such, describes generally used practices in the industry and is not an API Recommended Practice for coke drums in delayed coking units.

2 Normative References

There are no normative references in this document.

3 Terms, Definitions, and Abbreviations

For the purposes of this document, the following definitions apply.