DEP SPECIFICATION

MATERIALS AND FABRICATION REQUIREMENTS FOR 1¼Cr-½Mo PRESSURE VESSELS (AMENDMENTS/SUPPLEMENTS TO API RP 934-C AND API RP 934-E)

DEP 30.10.02.36-Gen.

February 2017

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DESIGN AND ENGINEERING PRACTICE

DEM1

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These views are based on the experience acquired during involvement with the design, construction, operation and maintenance of processing units and facilities. Where deemed appropriate DEPs are based on, or reference international, regional, national and industry standards.

The objective is to set the standard for good design and engineering practice to be applied by Shell companies in oil and gas production, oil refining, gas handling, gasification, chemical processing, or any other such facility, and thereby to help achieve maximum technical and economic benefit from standardization.

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PART I INTRODUCTION

1.1 SCOPE

This DEP specifies requirements and gives recommendations for materials and fabrication requirements for 1¼Cr-½Mo pressure vessels.

This DEP is based on API RP 934-C, 1st Edition, May 2008 and API RP 934-E 1st Edition, August 2010 and amends, supplements and deletes various clauses of these standards as applicable.

This DEP applies only for vessels fabricated to ASME, Section VIII.

This DEP contains mandatory requirements to mitigate process safety risks in accordance with Design Engineering Manual DEM 1 – Application of Technical Standards.

This is a revision of the DEP of the same number dated February 2013; see (1.5) regarding the changes.

1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

Unless otherwise authorised by Shell GSI, the distribution of this DEP is confined to Shell companies and, where necessary, to Contractors and Manufacturers/Suppliers nominated by them. Any authorised access to DEPs does not for that reason constitute an authorization to any documents, data or information to which the DEPs may refer.

This DEP is intended for use in facilities related to oil and gas production, gas handling, oil refining, chemical processing and gasification. This DEP may also be applied in other similar facilities.

When DEPs are applied, a Management of Change (MOC) process shall be implemented; this is of particular importance when existing facilities are to be modified.

If national and/or local regulations exist in which some of the requirements could be more stringent than in this DEP, the Contractor shall determine by careful scrutiny which of the requirements are the more stringent and which combination of requirements will be acceptable with regards to the safety, environmental, economic and legal aspects. In all cases, the Contractor shall inform the Principal of any deviation from the requirements of this DEP which is considered to be necessary in order to comply with national and/or local regulations. The Principal may then negotiate with the Authorities concerned, the objective being to obtain agreement to follow this DEP as closely as possible.

1.3 DEFINITIONS

1.3.1 GENERAL DEFINITIONS

The **Contractor** is the party that carries out all or part of the design, engineering, procurement, construction, commissioning or management of a project or operation of a facility. The Principal may undertake all or part of the duties of the Contractor.

The **Manufacturer/Supplier** is the party that manufactures or supplies equipment and services to perform the duties specified by the Contractor.

The **Principal** is the party that initiates the project and ultimately pays for it. The Principal may also include an agent or consultant authorised to act for, and on behalf of, the Principal.

NOTE: In API RP 934-C and API RP 934-E, the term Purchaser is used. In this DEP, the term Purchaser shall be understood to mean the Principal.

The word **shall** indicates a requirement.

NOTE: API RP 934-C use the word "should" throughout and does not use the word "shall". For the purpose of this DEP, all instances of "should" in API RP 934-C shall be read as "shall" unless modified otherwise in this DEP.

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The capitalised term **SHALL [PS]** indicates a process safety requirement.

The word **should** indicates a recommendation.

The word **may** indicates a permitted option.

1.4 CROSS-REFERENCES

Where cross-references to other parts of this DEP, are made, the referenced section number is shown in brackets ( ). Other documents referenced by this DEP are listed in (Part V).

1.5 SUMMARY OF MAIN CHANGES

This DEP is a revision of the DEP of the same number dated February 2013. The following are the main, non-editorial changes.

Section/Clause	Change
All	Restructured and clarified requirements, enforced shall/should.
Part III, 8.4.1.1 Item 1 & 2	Restructured and re-worded DEM1 requirement
Part III, 8.5.1.1 Item 1 & 2	Restructured and re-worded DEM1 requirement
Part IV, 8.4.1.1 Item 1 & 2	Restructured and re-worded DEM1 requirement
Part IV, 8.5.1.1 Item 1 & 2	Restructured and re-worded DEM1 requirement

1.6 COMMENTS ON THIS DEP

Comments on this DEP may be submitted to the Administrator using one of the following options:

Shell DEPs Online (Users with access to Shell DEPs Online)	Enter the Shell DEPs Online system at https://www.shelldeps.com Select a DEP and then go to the details screen for that DEP. Click on the “Give feedback” link, fill in the online form and submit.
DEP Feedback System (Users with access to Shell Wide Web)	Enter comments directly in the DEP Feedback System which is accessible from the Technical Standards Portal http://sww.shell.com/standards. Select “Submit DEP Feedback”, fill in the online form and submit.
DEP Standard Form (other users)	Use DEP Standard Form 00.00.05.80-Gen. to record feedback and email the form to the Administrator at standards@shell.com.

Feedback that has been registered in the DEP Feedback System by using one of the above options will be reviewed by the DEP Custodian for potential improvements to the DEP.

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1.7 DUAL UNITS

This DEP contains both the International System (SI) units, as well as the corresponding US Customary (USC) units, which are given following the SI units in brackets. When agreed by the Principal, the indicated USC values/units may be used.

1.8 NON NORMATIVE TEXT (COMMENTARY)

Text shown in italic style in this DEP indicates text that is non-normative and is provided as explanation or background information only.

Non-normative text is normally indented slightly to the right of the relevant DEP clause.

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