

TECHNICAL SPECIFICATION

CARBON STEEL PIPE (AMENDMENTS/SUPPLEMENTS TO API SPEC 5L)

MESC SPE 74/001

November 2012

MESC SPECIFICATION DOCUMENT



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All administrative queries should be directed to the MESC SPE Administrator in Shell GSI.

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PART I INTRODUCTION

1.1 SCOPE

This MESC SPE specifies requirements for carbon steel pipe.

This MESC SPE shall apply in addition to the applicable MESC Buying Description, purchase order or requisition sheet.

This MESC SPE only applies to carbon steel pipe to API SPEC 5L, Grade B.

This MESC SPE is written as amendments and supplements to API SPEC 5L (44th edition, **including Addendum 3**), which are covered in Part II of this MESC SPE. The clause numbering of API SPEC 5L (43rd edition) has been retained and any amendments are identified as 'Add', 'Modify to read' or 'Delete'. Any clauses of API SPEC 5L (44th edition, **including Addendum 3**) that are not amended or supplemented by this MESC SPE shall apply as written.

1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

Unless otherwise authorised by Shell GSI, the distribution of this MESC SPE is confined to Shell companies and, where necessary, to Contractors and Manufacturers/Suppliers nominated by them.

This MESC SPE is intended for use in oil refineries, chemical plants, gas plants, exploration and production facilities and, where applicable, supply/distribution installations.

If national and/or local regulations exist in which some of the requirements may be more stringent than in this MESC SPE 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 safety, environmental, economic and legal aspects. In all cases the Contractor shall inform the Principal of any deviation from the requirements of this MESC SPE 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 MESC SPE as closely as possible.

1.3 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 or maintenance 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 its design and construction. The Principal will generally specify the technical requirements. The Principal may also include an agent or consultant authorised to act for, and on behalf of, the Principal.

The word **shall** indicates a requirement.

The word **should** indicates a recommendation.

1.4 CHANGES SINCE PREVIOUS EDITION

The previous version of this SPE was dated **August 2008**. The SPE has only been modified to bring it in line with the latest revision of API SPEC 5L, **and to update section on "Length" for pipes.**

1.5 COMMENTS ON THIS MESC SPE

Comments on this MESC SPE may be sent to the MESC SPE Administrator at MESC@shell.com. Shell staff may also post comments on this MESC SPE on the Surface Global Network (SGN) under the Standards folder.

PART II AMENDMENTS/SUPPLEMENTS TO API SPEC 5L (44th edition, including Addendum 3)

- 8.1 *Add:*
The type of manufacturing process is specified in the MESC Buying Description.
Helical seam welded pipe shall only be supplied if approved by the Principal.
- 8.11.1 *Modify to read:*
Jointers are not allowed.
- 8.12 *Add:*
Seamless pipe shall be normalised or hot finished. Cold drawn seamless pipe shall be heat treated after the final cold draw pass at a temperature of $\geq 650\text{ }^{\circ}\text{C}$ (1200 $^{\circ}\text{F}$).
SAW pipe, thicker than 19 mm (0.75 in), shall be normalised or post weld heat treated after welding. This post weld heat treatment shall be performed at a temperature between 593 $^{\circ}\text{C}$ (1100 $^{\circ}\text{F}$) and 650 $^{\circ}\text{C}$ (1200 $^{\circ}\text{F}$) for 2½ minutes per millimetre (1 hour per inch), or 1 hour, whichever is the greater.
- 8.14 *Add* **Galvanising**
If galvanised is specified, galvanising shall be in accordance with ASTM A 53.
- 9.11.1.3 **Modify to read:**
Unless specified otherwise in the purchase order, the Unit of Length (Uol) for pipe is in meter or feet. The form of delivery shall be in single random length (SRL or double random length (DRL). The specified quantities of random lengths on the purchase order shall be converted to aggregate length on the basis of 6.1 m (20 ft) for single random length and 10.7 m (35 ft) for double random length.
To satisfy the purchase order, the delivered quantities of random lengths shall amount to at least the calculated aggregate length.
- 9.2.2 *Add:*
For non-galvanised pipe, the minimum silicon content shall be 0.10 %.
- 11.2.1 *Add:*
Marking shall also include the charge number (heat number) and, where applicable, the heat treatment batch number.

PART III REFERENCES

In this MESC SPE, reference is made to the following publications:

NOTES:

1. Unless specifically designated by date, the latest edition of each publication shall be used, together with any amendments/supplements/revisions thereto.
2. Most of the referenced external standards are available to Shell staff on the SWW (Shell Wide Web) at <http://sww.shell.com/standards>.

AMERICAN STANDARDS

Specification for Line Pipe

API SPEC 5L (44th edition,
including Addendum 3)

Issued by:
American Petroleum Institute
1220 L Street NW
Washington, DC 20005
USA

Specification for pipe, steel, black and hot-dipped, zinc-coated welded and seamless

ASTM A 53

Issued by:
American Society for Testing and Materials
1916 Race Street, Philadelphia
19103, USA