

DEP SPECIFICATION

INSULATION SYSTEMS FOR ONSHORE PIPELINES

DEP 30.46.20.32-Gen.

February 2017

DESIGN AND ENGINEERING PRACTICE



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

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1. INTRODUCTION

1.1 SCOPE

This new DEP specifies requirements and gives recommendations for the production and installation of factory applied external rigid polyurethane foam insulation with polyethylene casing of steel line pipe, bend and fittings. Additionally, this specification applies to the production and installation of rigid polyurethane foam insulation with polyethylene casing of field joints.

This DEP applies if the steel line pipe is not coated or if the steel line pipe is coated with any of the following:

- a polyethylene coating (PE) according to DEP 31.40.30.31-Gen., or;
- with a polypropylene coating (PP) according to DEP 31.40.30.31-Gen., or;
- with a fusion bonded epoxy coating (FBE) according to DEP 31.40.30.31-Gen.

The steel line pipe is used for the construction of buried or submerged onshore pipelines.

This specification applies to insulated pipe assemblies for a maximum design temperature up to 120 °C (248 °F). The minimum temperature for handling of pre-insulated materials is 0 °C (32 °F).

This specification does not include the supply of line pipe, fittings and bends.

Welding of the service pipe and application of coating restoration for field joints where anti-corrosion coating on the service pipe is specified, are excluded from this specification.

This specification is intended for new pipeline construction projects onshore, and does not apply to insulated systems for offshore applications.

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 authorisation 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, gasification, distribution and supply/marketing. 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.

The word **shall** indicates a requirement.

The word **should** indicates a recommendation.

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

1.3.2 Specific definitions

Term	Definition
batch	Amount of materials produced within one uninterrupted production run of maximum 8 h under constant production conditions.
field joint	Part of the pipeline where pipes have been welded together and where, as a consequence, there is a discontinuity in the pipe coating.
holiday	Defect penetrating through the coating to the steel pipe surface, of such dimensions that it is detectable by means of the specified procedures.
Inspector	The party appointed by the Principal to witness the Applicator's quality control of coating materials and the coating process.
maximum design temperature	Temperature that is specified by the Principal as the maximum design temperature of the pipeline.

1.3.3 Abbreviations

Term	Definition
AFC	Approved for Construction

1.4 CROSS-REFERENCES

Where cross-references to other parts of this DEP are made, the referenced section or clause number is shown in brackets (). Other documents referenced by this DEP are listed in (6).

1.5 SUMMARY OF MAIN CHANGES

This is a new DEP.

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.
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