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Pipeline systems –

Part 5: Subsea pipelines – Guide to operational practice

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Summary of pages

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Foreword

Publishing information

This part of PD 8010 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 September 2013. It was prepared by Subcommittee PSE/17/2, *Pipeline transportation systems*, under the authority of Technical Committee PSE/17, *Materials and equipment for petroleum*. A list of organizations represented on these committees can be obtained on request to their secretary.

Relationship with other publications

PD 8010-5 is a new part of the PD 8010 series. The series comprises:

- Part 1: *Steel pipelines on land*;
- Part 2: *Subsea pipelines*;
- Part 3: *Steel pipelines on land – Guide to the application of pipeline risk assessment to proposed developments in the vicinity of major accident hazard pipelines containing flammables – Supplement to PD 8010-1:2004*;
- Part 4: *Steel pipelines on land and subsea pipelines – Code of practice for integrity management*;
- Part 5: *Subsea pipelines – Guide to operational practice*.

This part of PD 8010 is intended to be read in conjunction with PD 8010-2 and PD 8010-4:2012.

Information about this document

This part of PD 8010 was initially drafted using Pipeline Users Group documents as a basis, with their kind permission.

As an industry develops, the practices and procedures it adopts improve so that the way business is conducted within that industry improves with that development. In the oil and gas offshore industry, some subsea assets have been in operation in the North Sea for several decades, during which time lessons have been learned and operational practice improved. This part of PD 8010 presents a number of operational practices that have been established as a result of these developments.

It is anticipated that operational pipeline engineers will use this part of PD 8010 on a regular basis; pipeline design engineers will take cognisance of it in the design of pipeline systems; and third-party providers of equipment and services will be able to align the products and services they provide with the guidance and recommendations given.

Use of this document

As a guide, this part of PD 8010 takes the form of guidance and recommendations. It should not be quoted as if it were a specification or a code of practice and claims of compliance cannot be made to it.

It has been assumed in the preparation of this part of PD 8010 that the execution of its guidance will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

BSI permits the reproduction of Figure B.1, Figure D.1, Figure G.1, Figure H.1 and Table E.1. This reproduction is permitted only where it is necessary for the user to use the sample pro-formas given in the figures and table during each application of the standard.

Presentational conventions

The guidance in this part of PD 8010 is presented in roman (i.e. upright) type. Any recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a Published Document cannot confer immunity from legal obligations.

1 Scope

This part of PD 8010 gives guidance on the following aspects of offshore subsea system operational practice:

- determining the requirement for a subsea isolation valve (SSIV);
- selection and use of high pressure in-line isolation plugs;
- pipeline integrity data exchange;
- caisson and J-tube integrity management;
- emergency shutdown valve (ESDV) testing;
- operational testing of pig launchers and receivers.

2 Normative references

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

PD 8010-2, *Code of practice for pipelines – Part 2: Subsea pipelines*

PD 8010-4:2012, *Pipeline systems – Part 4: Steel pipelines on land and subsea pipelines – Code of practice for integrity management*

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this part of PD 8010, the terms and definitions given in PD 8010-2, PD 8010-4:2012 and the following apply.

3.1.1 annulus

void between a caisson/J-tube inner wall and the outer wall of components (e.g. one or more flexible or rigid risers, J-tubes, umbilicals) installed within the caisson/J-tube

3.1.2 bellmouth

short conical extension piece at the end of a J-tube, the purpose of which is to aid insertion of risers and umbilicals into the J-tube and minimize the risk of damage during installation, and to provide a similar mechanical protection during operation by maintaining a filleted contact and supporting surface at the entry point

3.1.3 caisson

prefabricated tubular assembly, containing one or more smaller diameter tubular components (usually rigid risers and J-tubes) which pass through the top and bottom sealing bulkheads

NOTE A caisson can be in multiple components, e.g. upper and lower caisson sections.

3.1.4 closed-in tubing head pressure

pressure at the bottom of a well, caused by formation fluids at the bottom of the well, when the surface valves on the top of the well are completely closed

NOTE This is also referred to as shut-in bottomhole pressure.

3.1.5 failure

event, state or condition of not meeting a desirable or intended objective