

DEP SPECIFICATION

**DESIGN OF OFFSHORE TOPSIDES FACILITIES AGAINST
FIRE AND BLAST LOADING
(AMENDMENTS/SUPPLEMENTS TO API RP 2FB)**

DEP 37.01.10.11-Gen.

February 2017

DESIGN AND ENGINEERING PRACTICE

DEM1



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PART I INTRODUCTION

1.1 SCOPE

This DEP specifies requirements and gives recommendations for the design of offshore topsides facilities which may be exposed to hydrocarbon release incidents resulting in fire and/or blast loading. This DEP also gives recommendations for assessment and mitigation of the risks associated with fire and blast events.

This DEP is based on API RP 2FB. Part III of this DEP amends, supplements, and deletes various clauses of API RP 2FB. Part III follows the clause numbering of API RP 2FB for easy reference.

All clauses of API RP 2FB not modified by this DEP remain valid as written.

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 2014; see (1.5) regarding the changes.

Additional guidance for design of offshore facilities for fire and blast loading is provided in the Oil & Gas UK guidelines "Fire & Explosion Guidance" (also sometimes referenced as UKOOA/HSE). The approach taken in the UKOOA/HSE documents is mainly consistent with the approach in API RP 2FB (ref OTC 17700). FABIG (The Fire and Blast Information Group) also publishes comprehensive guidance in the form of Technical Notes which are accessible via the FABIG website.

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 for offshore facilities, fixed or floating, designed for oil and gas production. This DEP may also be applied to 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 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 or clause number is shown in brackets (). Other documents referenced by this DEP are listed in (Part IV).

1.5 SUMMARY OF MAIN CHANGES

This DEP is a full revision of the DEP of the same number dated February 2014. The following are the main, non-editorial changes.

Section/Clause	Change
All	Restructured and clarified requirements, enforced shall/should.
2.7	SHALL [PS] statements restructured in new sub-sections 2.7.2, 2.7.3 and 2.7.4.