

TECHNICAL SPECIFICATION

**SUBSEA PRODUCTION SYSTEMS**

DEP 37.80.00.30-Gen.

March 1994

**DESIGN AND ENGINEERING PRACTICE**

USED BY  
COMPANIES OF THE ROYAL DUTCH/SHELL GROUP



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

NOTE: In addition to DEP publications there are Standard Specifications and Draft DEPs for Development (DDDs). DDDs generally introduce new procedures or techniques that will probably need updating as further experience develops during their use. The above requirements for distribution and use of DEPs are also applicable to Standard Specifications and DDDs. Standard Specifications and DDDs will gradually be replaced by DEPs.

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## 1. INTRODUCTION

### 1.1 SCOPE

This DEP which is a revision of the DEP of the same number dated June 1992 gives minimum requirements for the design, manufacture, testing, operation and abandonment of subsea production systems. This DEP is based upon the API 17 series.

### 1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

Unless otherwise authorised by SIPM, the distribution of this DEP is confined to companies forming part of the Royal Dutch/Shell Group or managed by a Group company, and to Contractors and Manufacturers/Suppliers nominated by them (i.e. the distribution code is "F" as described in DEP 00.00.05.05-Gen.)

This DEP is intended for use in subsea oil and gas production facilities.

If national and/or local regulations exist in which some of the requirements may 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 as regards 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 with the object of obtaining agreement to follow this DEP as closely as possible.

### 1.3 DEFINITIONS

The **Contractor** is the party which 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 which manufactures or supplies equipment and services to perform the duties specified by the Contractor.

The **Principal** is the party which 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.

## 2. PHILOSOPHY

This DEP references Recommended Practices and Specifications which are approved by SIPM for use in Group operations. It also references forthcoming documents for which SIPM is actively participating in the input and review. It is intended that, upon their publication, either by the American Petroleum Institute, or the superseding version by the International Standard Organisation (ISO) being developed by ISO committee ISO/TC67/SC4/WG6 Petroleum and Natural Gas Industries - Subsea Equipment, these documents will be adopted by a revision to this DEP.

The principle followed by these documents is to define the functional requirements of the equipment, and to specify the means by which compliance with these requirements can be demonstrated.

### **3. PROJECT SPECIFIC REQUIREMENTS**

It is recognised that there will be project specific requirements that cannot be specified in a Group standard. These include:

- Wellstream fluid characteristics
- Equipment and system configuration.

Data on such items shall be added as supplements to the appropriate standard. Other amendments may also be made, but should cross-reference the corresponding paragraph in the appropriate standard.

**4. API STANDARDS APPROVED FOR USE**

The following documents are approved for use, with no Group amendments:

API RP 17A  
API RP 17C  
API Spec 17D  
API Spec 17E.

NOTE: API RP 17B is also approved for use, but is covered separately by DDD 39.40.20.30-Gen.

**5. API STANDARDS IN PREPARATION**

The following standards are currently being prepared, with SIPM participation. Once issued by the American Petroleum Institute it is intended that they shall be adopted for Group use. In the meantime the latest drafts can be referred to for guidance:

API Spec 17F  
API RP 17G  
API Spec 17H  
API RP 17I

## 6. REFERENCES

In this DEP, reference is made to the following publications:

NOTE: Unless specifically designated by date, the latest edition of each publication shall be used, together with any amendments/supplements/revisions thereto.

### SHELL STANDARDS

Index to DEP Publications and Standard Specifications	DEP 00.00.05.05-Gen.
High pressure metal/polymer flexible pipe for use in oil and gas operations as flowlines and risers.	DDD 39.40.20.30-Gen.

### AMERICAN STANDARDS

Design and operation of subsea production systems	API RP 17A 1st edition, September 1, 1987
Flexible pipe	API RP 17B
Through flowline systems	API RP 17C 1st edition, July 1, 1991
Subsea wellhead, mudline and christmas tree equipment	API Spec 17D 1st edition, October 1992
Subsea control umbilicals	API Spec 17E 1st edition August 1993
Subsea control systems	Draft API Spec 17F
Workover and completion riser systems	Draft API RP 17G
Standardisation of ROV intervention on subsea equipment	Draft API Spec 17H
Umbilical installation guidelines	Draft API RP 17I

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