

INDEX

INDEX TO DEP PUBLICATIONS

DEP 00.00.05.05-Gen.

June 2004

DESIGN AND ENGINEERING PRACTICE



This document is restricted. Neither the whole nor any part of this document may be disclosed to any third party without the prior written consent of Shell Global Solutions International B.V. and Shell International Exploration and Production B.V., The Netherlands. The copyright of this document is vested in these companies. All rights reserved. Neither the whole nor any part of this document may be reproduced, stored in any retrieval system or transmitted in any form or by any means (electronic, mechanical, reprographic, recording or otherwise) without the prior written consent of the copyright owners.

PREFACE

DEPs (Design and Engineering Practice) publications reflect the views, at the time of publication, of:

Shell Global Solutions International B.V. (Shell GSI)

and

Shell International Exploration and Production B.V. (SIEP)

and

Shell International Chemicals B.V. (SIC)

and

other Service Companies.

They are based on the experience acquired during their involvement with the design, construction, operation and maintenance of processing units and facilities, and they are supplemented with the experience of Group Operating companies. Where appropriate they are based on, or reference is made to, international, regional, national and industry standards.

The objective is to set the recommended standard for good design and engineering practice applied by Group companies operating an oil refinery, gas handling installation, chemical plant, oil and gas production facility, or any other such facility, and thereby to achieve maximum technical and economic benefit from standardization.

The information set forth in these publications is provided to users for their consideration and decision to implement. This is of particular importance where DEPs may not cover every requirement or diversity of condition at each locality. The system of DEPs is expected to be sufficiently flexible to allow individual operating companies to adapt the information set forth in DEPs to their own environment and requirements.

When Contractors or Manufacturers/Suppliers use DEPs they shall be solely responsible for the quality of work and the attainment of the required design and engineering standards. In particular, for those requirements not specifically covered, the Principal will expect them to follow those design and engineering practices which will achieve the same level of integrity as reflected in the DEPs. If in doubt, the Contractor or Manufacturer/Supplier shall, without detracting from his own responsibility, consult the Principal or its technical advisor.

The right to use DEPs is granted by Shell GSI, SIEP or SIC, in most cases under Service Agreements primarily with companies of the Royal Dutch/Shell Group and other companies receiving technical advice and services from Shell GSI, SIEP, SIC or another Group Service Company. Consequently, three categories of users of DEPs can be distinguished:

- 1) Operating companies having a Service Agreement with Shell GSI, SIEP, SIC or other Service Company. The use of DEPs by these operating companies is subject in all respects to the terms and conditions of the relevant Service Agreement.
- 2) Other parties who are authorized to use DEPs subject to appropriate contractual arrangements (whether as part of a Service Agreement or otherwise).
- 3) Contractors/subcontractors and Manufacturers/Suppliers under a contract with users referred to under 1) or 2) which requires that tenders for projects, materials supplied or - generally - work performed on behalf of the said users comply with the relevant standards.

Subject to any particular terms and conditions as may be set forth in specific agreements with users, Shell GSI, SIEP and SIC disclaim any liability of whatsoever nature for any damage (including injury or death) suffered by any company or person whomsoever as a result of or in connection with the use, application or implementation of any DEP, combination of DEPs or any part thereof, even if it is wholly or partly caused by negligence on the part of Shell GSI, SIEP or other Service Company. The benefit of this disclaimer shall inure in all respects to Shell GSI, SIEP, SIC and/or any company affiliated to these companies that may issue DEPs or require the use of DEPs.

Without prejudice to any specific terms in respect of confidentiality under relevant contractual arrangements, DEPs shall not, without the prior written consent of Shell GSI and SIEP, be disclosed by users to any company or person whomsoever and the DEPs shall be used exclusively for the purpose for which they have been provided to the user. They shall be returned after use, including any copies which shall only be made by users with the express prior written consent of Shell GSI, SIEP or SIC. The copyright of DEPs vests in Shell GSI and SIEP. Users shall arrange for DEPs to be held in safe custody and Shell GSI, SIEP or SIC may at any time require information satisfactory to them in order to ascertain how users implement this requirement.

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

TABLE OF CONTENTS

1.	INTRODUCTION	4
1.1	SCOPE.....	4
1.2	TYPES OF DEP	4
1.3	STANDARD SPECIFICATIONS	4
1.4	REQUISITIONS AND STANDARD FORMS.....	4
1.5	DISTRIBUTION OF DEPs	5
1.6	AMENDMENTS	5
1.7	CUSTODIANSHIP	6
PART I	SUBJECT INDEX	7
1.	GENERAL ENGINEERING SUBJECTS	7
1.1	INDICES.....	7
1.2	GENERAL	7
2.	MECHANICAL ENGINEERING	8
2.1	GENERAL	8
2.2	EQUIPMENT.....	8
2.3	CONSTRUCTION MATERIALS.....	11
2.4	WELDING, GENERAL	11
2.5	MAINTENANCE AND INSPECTION	11
2.6	OFFSHORE APPLICATIONS.....	11
3.	INSTRUMENT ENGINEERING AND TELECOMMUNICATIONS	13
4.	ELECTRICAL ENGINEERING	14
5.	CIVIL ENGINEERING (including steel structures)	15
6.	SURFACE PROTECTION (coatings, linings and cathodic protection)	15
7.	SAFETY AND FIRE FIGHTING	16
8.	DRILLING AND PRODUCTION	17
PART II	NUMERICAL INDICES	18
1.	DEPS	18
2.	STANDARD SPECIFICATIONS	35

1. INTRODUCTION

1.1 SCOPE

This index lists the DEPs (Design and Engineering Practices) in circulation on the date of issue of this index. They are listed both by subject type and numerically. In the numerical indices (Part II, sections 1 and 2), withdrawn DEPs and Standard Specifications have been included and a reference is shown in parentheses if the withdrawn DEP or Standard Specification was included in, or replaced by, another publication.

This index replaces the previous index dated November 2003 and changes have been highlighted by a vertical line (|) in the left margin of the numerical index (Part II, section 1).

1.2 TYPES OF DEP

MANUAL Designated "M"

Manuals aim to give guidance for the way a particular aspect is to be approached, and the resultant practice or method is outlined.

TECHNICAL SPECIFICATION Designated "T"

Technical specifications aim mainly at a basis for understanding between the Principal, Contractor and Supplier providing detailed requirements to be satisfied by a product, a material or a process and indicating the criteria to judge compliance.

PROCEDURAL SPECIFICATION Designated "P"

Procedural specifications aim at describing formalised ways of doing things to achieve a sound result.

NOTE: The above designations are shown for each active DEP in the 4th column of the numerical section of this index (Part II).

REQUISITION

Requisitions provide the engineering information required for the procurement of equipment and materials.

STANDARD FORM

Standard forms are documents used to present information in a consistent manner.

1.3 STANDARD SPECIFICATIONS

Standard Specifications have now all been withdrawn and, where relevant, replaced by DEPs.

1.4 REQUISITIONS AND STANDARD FORMS

Requisition sheets are indexed in DEP 30.10.01.10-Gen.

Standard Forms are indexed in DEP 00.00.10.05-Gen.

1.5 DISTRIBUTION OF DEPs

The primary, but not exclusive, users of active DEPs are shown in the 5th column of the numerical indices. The coding is as follows:

- 'G' for Central Offices and Group companies
- 'C' for Central Offices, Group companies and their nominated contractors
- 'F' for Central Offices, Group companies, their nominated contractors and nominated Manufacturers.

NOTES: 1. The above codings were used in the previous DEP distribution system to determine **automatic** distribution of a DEP. They were not, and are not, meant to restrict distribution when a DEP is requested to be provided. For example, a Manufacturer may be issued with a 'C' coded DEP on request.

2. This coding system was discontinued in April 2003.

On a regular basis (currently twice per year) a nominated focal point in each authorised Group company is sent the specified quantity of new DEP CDROMs.

The Group company is responsible for copying or printing any paper copies that may be needed.

The Group company is responsible for providing DEPs to their Contractors and Manufacturers but Shell GSI can provide DEPs directly to Contractors and Manufacturers for an administrative fee.

1.6 AMENDMENTS

Between formal revisions, if an amendment is required to a DEP, a "DEP Circular" is issued. These circulars are numbered x/y, where "x" is a sequential number and "y" is the year in which it was issued.

The 6th column of the numerical section (Part II, section 1) of this index identifies whether a DEP has been so amended.

1.7

CUSTODIANSHIP

The Shell GSI and SIEP Custodians responsible for active DEPs are identified in the 7th column of the numerical index (Part II, section 1).

The current incumbents are as follows:

Custodian	Name	Location	Phone	E-mail
EPT-OE-FL	Van der Aar, L	Rijswijk	+ 31 70 447 4030	leo.vanderaarrank.sliggersshell.com
EPT-OE-PL	Helmer, T	Rijswijk	+ 31 70 447 6367	t.helmerrank.sliggersshell.com
EPT-OE-WL	Brouwer, S	Rijswijk	+ 31 70 447 2062	sjoerd.brouwerrank.sliggersshell.com
EPT-IO-ST	Akkermans, F	Rijswijk	+ 31 70 447 3860	frans.akkermansrank.sliggersshell.com
EPT-PER	Sliggers, J	Rijswijk	+ 31 70 447 6554	frank.sliggersshell.com
EPT-PR	Oude Hengel, J	Rijswijk	+ 31 70 311 6049	j.oudehengelshell.com
OGCC	van Koperen, T	The Hague	+31 70 377 2985	tap.vankoperenshell.com
OGCH/1	Pescott, R.D.	The Hague	+31 70 377 1484	dick.pescottshell.com
OGEC	Krijn, P	The Hague	+ 31 70 377 1828	pieter.krijnshell.com
OGEE	Griffin, P.T.	The Hague	+ 31 70 377 3149	terry.griffinshell.com
OGEH	Bosch, S.	Amsterdam	+ 31 20 630 3140	sjoerd.boschshell.com
OGEI/1	Lewis, K.	Amsterdam	+31 20 630 3147	keith.k.r.lewissshell.com
OGEI/2	Kerkveld, G.	Amsterdam	+ 31 20 630 2438	gert.kerkveldshell.com
OGEI/4	Kapusta, S.	Houston	+1 281 544 7633	sergio.kapustashell.com
OGEM	Mes, H.	The Hague	+ 31 70 377 3977	hans.messhell.com
OGER	Ravesloot, W	The Hague	+ 31 70 377 2581	wim.raveslootshell.com
OGES	van Geel, C.A.G.	The Hague	+ 31 70 377 2026	cees.vangeelshell.com
OGGL	Pek, B.	The Hague	+ 31 70 377 1951	barend.pekshell.com
OGPS	Bakker, H	The Hague	+ 31 70 377 2136	hans.h.l.m.bakkersshell.com
OGRD	Vasmel, H.	Amsterdam	+ 31 20 630 2044	henk.vasmelshell.com
OGLM	Williams, D	The Hague	+ 31 70 377 1740	david.l.williamsshell.com
OGRC	Muller, F	Amsterdam	+ 31 20 630 2375	fred.mullershell.com
OGRT	Schrijvers, F.A.M.	Amsterdam	+ 31 20 630 2734	frans.schrijversshell.com
OGRU	Verhulst, P.	Amsterdam	+31 20 630 2472	peter.verhulstshell.com
OGUD	Mossman, J.	Rijswijk	+ 31 70 311 3553	john.mossmansshell.com
OGUF	Colenbrander, G.W.	Amsterdam	+ 31 20 630 3384	gert.colenbrandershell.com
OGUM	Jakeman, S.	Rijswijk	+ 31 70 311 3514	simon.jakemansshell.com
SI-HE/2	Rensink, H	The Hague	+31 70 377 4800	harrie.rensinkshell.com

PART I SUBJECT INDEX

1. GENERAL ENGINEERING SUBJECTS

1.1 INDICES

Title	DEP Number
Index to DEPs	DEP 00.00.05.05-Gen.
Index to standard drawings	DEP 00.00.06.06-Gen.
Index to standard forms	DEP 00.00.10.05-Gen.
Index to Requisitions	DEP 30.10.01.10-Gen.

1.2 GENERAL

DEP publications (procedural specification)	DEP 00.00.00.30-Gen.
Content and drafting of a functional specification, and a technical specification, and the classification of products, processes and services (endorsement of ISO 13879, ISO 13880 and ISO/TR 13881)	DEP 00.00.07.30-Gen
The use of SI quantities and units (endorsement of ISO 31 and ISO 1000)	DEP 00.00.20.10-Gen.
Definition of temperature, pressure and toxicity levels	DEP 01.00.01.30-Gen.
Preparation of process flow schemes and process engineering flow schemes	DEP 01.00.02.11-Gen.
Preparation of safeguarding memoranda and process safeguarding flow schemes	DEP 01.00.02.12-Gen.
Asset breakdown for onshore facilities	DEP 01.00.09.10-Gen.
Preparation and microfilming of technical drawings	DEP 02.00.00.10-Gen.
Steam injection systems for safeguarding thermal cracking units	DEP 10.02.51.11-Gen.
Basic data and phase behaviour methods	DEP 20.00.10.10-Gen.
Glycol-type gas dehydration and hydrate inhibition systems	DEP 20.04.10.10-Gen.
Human factors engineering in projects	DEP 30.00.60.10-Gen.
Human factors engineering - investment justification model	DEP 30.00.60.12-Gen.
Human factors engineering - valve analysis	DEP 30.00.60.13-Gen.
Human factors engineering - human/machine interface and control room design	DEP 30.00.60.15-Gen.
Plant model construction and review	DEP 30.10.05.11-Gen.
Capital project coding system	DEP 40.10.01.11-Gen.
Spare parts	DEP 70.10.90.11-Gen.
Area classification (amendments/supplements to IP 15)	DEP 80.00.10.10-Gen.
Project quality assurance	DEP 82.00.10.10-Gen.
Cost control of capital investment projects	DEP 82.00.10.11-Gen.

2. MECHANICAL ENGINEERING

2.1 GENERAL

Title	DEP Number
Heat transfer fluid (HTF) systems	DEP 20.05.50.10-Gen.
Fuel systems	DEP 20.05.60.10-Gen.
Equipment in LPG installations	DEP 30.06.10.11-Gen.
Pressurised bulk storage installations for LPG	DEP 30.06.10.12-Gen.
LPG - bulk transfer and transportation	DEP 30.06.10.13-Gen.
ESD systems for loading and discharging refrigerated and pressurised LNG and LPG carriers	DEP 30.06.10.20-Gen.
Glass lined steel equipment and piping	DEP 30.48.70.30-Gen.
Chemical injection facilities	DEP 31.01.10.10-Gen.
Loading facilities for bulk road vehicles	DEP 31.06.11.11-Gen.
Symbols and identification system – Mechanical	DEP 31.10.03.10-Gen.
Gaseous oxygen systems	DEP 31.10.11.31-Gen.
Instrument air supply	DEP 31.37.00.11-Gen.
Diesel oil systems in oil and gas production facilities	DEP 37.05.10.11-Gen.

2.2 EQUIPMENT

2.2.1 General/noise/safety relief systems

Noise control (amendments/supplements to ISO 15664)	DEP 31.10.00.31-Gen.
Fabric expansion joints - Selection and application	DEP 31.24.40.12-Gen.
Filters for removing particles from hydroprocessor feeds - type selection and design rules	DEP 31.27.21.10-Gen.
Dry electrostatic precipitators	DEP 31.27.21.30-Gen.
Steam jet vacuum ejector sets	DEP 31.29.56.31-Gen.
Hydraulic systems for remote operation of shut-off valves	DEP 31.36.10.30-Gen.
PTFE bellows	DEP 31.38.82.31-Gen.
Acoustic insulation for piping	DEP 31.46.00.31-Gen.
Relief valves - selection, sizing and specification	DEP 80.36.00.30-Gen.
Pressure relief, emergency depressuring, flare and vent systems	DEP 80.45.10.10-Gen.
Interlocking systems for safety/relief valves	DEP 80.46.30.11-Gen.

2.2.2 Boilers/furnaces

Title	DEP Number
Water-tube boiler installations	DEP 30.75.10.30-Gen.
Gas turbine heat recovery steam generators	DEP 30.75.10.31-Gen.
Fired heaters, including waste heat boilers (amendments/supplements to API 560)	DEP 31.24.00.30-Gen.

2.2.3 Heat exchangers

Fouling resistances for heat transfer equipment	DEP 20.21.00.31-Gen.
Shell-and-tube heat exchangers (amendments/supplements to ISO 16812)	DEP 31.21.01.30-Gen.
Selected construction materials for shell-and-tube heat exchangers	DEP 31.21.01.31-Gen.
Plate and frame heat exchangers (amendments/supplements to ISO 15547)	DEP 31.21.01.32-Gen.
Air-cooled heat exchangers (amendments/supplements to ISO 13706)	DEP 31.21.70.31-Gen.

2.2.4 Vessels/columns/reactors

Internals for columns	DEP 31.20.20.31-Gen.
Rotating disc contactors	DEP 31.22.01.31-Gen.
Gas/liquid separators - Type selection and design rules	DEP 31.22.05.11-Gen.
Liquid/liquid and gas/liquid/liquid (three-phase) separators - Type selection and design rules	DEP 31.22.05.12-Gen.
Pressure vessels (amendments/supplements to PD 5500)	DEP 31.22.10.32-Gen.
Manufacturing report for pressure vessels	DEP 31.22.10.35-Gen.
Unfired pressure vessels (amendments/supplements to EN 13445)	DEP 31.22.11.32-Gen.
Pressure vessels (amendments/supplements to ASME VIII, Division 1 and Division 2)	DEP 31.22.20.31-Gen.
Glass-fibre reinforced epoxy and polyester vessels - design and installation	DEP 31.22.30.14-Gen.
Materials and fabrication requirements for Cr-Mo heavy wall pressure vessels (amendments/supplements to API RP 934)	DEP 30.10.02.32-Gen.

2.2.5 Rotating equipment

Title	DEP Number
Hoisting facilities and weather protection for rotating equipment	DEP 31.25.00.10-Gen.
Installation of rotating equipment (amendments/supplements to API RP 686)	DEP 31.29.00.10-Gen.
Oil mist lubrication systems	DEP 31.29.00.30-Gen.
Petroleum and natural gas industries - high-speed special-purpose gear units (amendments/supplements to ISO 13691)	DEP 31.29.00.32-Gen.
Shaft sealing systems for centrifugal and rotary pumps (amendments/supplements to API 682)	DEP 31.29.00.33-Gen.
Dry gas seal systems for centrifugal compressors	DEP 31.29.00.34-Gen.
Flexible couplings for mechanical power transmission - special purpose applications (amendments/ supplements to ISO 10441 and ISO 14691)	DEP 31.29.00.36-Gen.
Pumps - type selection	DEP 31.29.02.11-Gen.
Centrifugal pumps (amendments/supplements to ISO 13709)	DEP 31.29.02.30-Gen.
Centrifugal submerged motor pumps (in refrigerated product or pressurised storage service)	DEP 31.29.06.30-Gen.
Seawater lift pumps	DEP 31.29.06.31-Gen.
Reciprocating positive displacement pumps and metering pumps (amendments/supplements to API 674 and API 675)	DEP 31.29.12.30-Gen.
Compressors - Selection, testing and installation	DEP 31.29.40.10-Gen.
Centrifugal and axial compressors (amendments/supplements to API Std 617)	DEP 31.29.40.30-Gen.
Reciprocating compressors (amendments/supplements to API 618)	DEP 31.29.40.31-Gen.
Rotary-type positive displacement compressors (amendments/supplements to API 619)	DEP 31.29.40.32-Gen.
Packaged, integrally geared, centrifugal plant and instrument air compressors (amendments/supplements to API Std 672)	DEP 31.29.40.33-Gen.
Liquid ring vacuum pumps and compressors (amendments/supplements to API 681)	DEP 31.29.42.30-Gen.
Centrifugal fans (amendments/supplements to API 560, Appendix E)	DEP 31.29.47.30-Gen.
Steam turbines - Selection, testing and installation	DEP 31.29.60.10-Gen.
General-purpose steam turbines (amendments/supplements to API Std 611)	DEP 31.29.60.30-Gen.
Special-purpose steam turbines (amendments/supplements to API Std 612)	DEP 31.29.60.31-Gen.
Lubrication, shaft-sealing and control oil systems and auxiliaries for petroleum, chemical and gas industry services (amendments/supplements to API 614)	DEP 31.29.60.32-Gen.
Combustion gas turbines - Selection, testing and installation	DEP 31.29.70.11-Gen.
Combustion gas turbines (amendments/supplements to API 616)	DEP 31.29.70.31-Gen.
Gas turbine combustion air intake and exhaust systems	DEP 31.29.70.32-Gen.
Diesel engines	DEP 31.29.80.30-Gen.
Spark ignited gas fuelled engines	DEP 31.29.90.30-Gen.

2.2.6 Piping and pipelines

Title	DEP Number
Side-entry mixers for storage tanks & vessels	DEP 31.51.10.31-Gen.
Fabrication of heater piping	DEP 31.24.49.31-Gen.
Pipeline transportation systems - pipeline valves (amendments/supplements to ISO 14313)	DEP 31.36.00.30-Gen.
Piping classes - basis of design	DEP 31.38.01.10-Gen.
Piping - general requirements	DEP 31.38.01.11-Gen.
Piping classes - refining and chemicals	DEP 31.38.01.12-Gen.
Compilation of bill of material for piping isometrics	DEP 31.38.01.13-Gen.
Piping classes - exploration and production	DEP 31.38.01.15-Gen.
Compilation of a specification for piping systems	DEP 31.38.01.21-Gen.
Pipe supports	DEP 31.38.01.29-Gen.
Shop and field fabrication of steel piping	DEP 31.38.01.31-Gen.
Protective steam heating of piping systems	DEP 31.38.30.11-Gen.
Hot-tapping on pipelines, piping and equipment	DEP 31.38.60.10-Gen.
Pipeline engineering	DEP 31.40.00.10-Gen.
Corrosion mitigation strategy for wet sour gas carbon steel pipelines	DEP 31.40.00.19-Gen.
Riser design	DEP 31.40.10.10-Gen.
Design of multiple-pipe slug catchers	DEP 31.40.10.12-Gen.
Design of pipeline pig trap systems	DEP 31.40.10.13-Gen.
Pipeline overpressure protection	DEP 31.40.10.14-Gen.
Analysis of spans for submerged pipelines	DEP 31.40.10.15-Gen.
Upheaval buckling of pipelines	DEP 31.40.10.16-Gen.
Pipeline/trawl gear interaction	DEP 31.40.10.17-Gen.
GRP pipelines and piping systems (amendments/supplements to ISO 14692)	DEP 31.40.10.19-Gen.
CRA clad or lined steel pipe (amendments/supplements to API Spec 5LD)	DEP 31.40.20.32-Gen.
Linepipe induction bends (amendments/supplements to ISO 15590-1)	DEP 31.40.20.33-Gen.
Welded and seamless duplex and super duplex stainless steel line pipe (amendments/supplements to API Spec 5LC)	DEP 31.40.20.34-Gen.
Linepipe for non-critical service (amendments/supplements to ISO 3183-1)	DEP 31.40.20.35-Gen.
Weldable martensitic stainless steel line pipe for use in oil and gas operations (amendments/supplements to API Spec 5LC)	DEP 31.40.20.36-Gen.
Linepipe for critical service (amendments/supplements to ISO 3183-3)	DEP 31.40.20.37-Gen.
Pipeline fittings (amendments/supplements to MSS SP-75)	DEP 31.40.21.30-Gen.
Pipeline isolating joints (amendments/supplements to MSS SP-75)	DEP 31.40.21.31-Gen.
Pig signallers: Intrusive type	DEP 31.40.21.33-Gen.
Carbon and low alloy steel pipeline flanges for use in oil and gas operations (amendments/supplements to MSS SP-44)	DEP 31.40.21.34-Gen.
Thermoplastic lined pipelines	DEP 31.40.30.34-Gen.
Hydrostatic pressure testing of new pipelines	DEP 31.40.40.38-Gen.
Precommissioning of pipelines	DEP 31.40.50.30-Gen.
Pipeline leak detection	DEP 31.40.60.11-Gen.
Pipeline Repairs (supplements to ANSI/ASME B31.4 and B31.8)	DEP 31.40.60.12-Gen.
Quarter-turn on/off actuators	DEP 31.40.70.30-Gen.

L80 13%Cr casing and tubing (amendments/supplements to ISO/DIS 11960.2)	DEP 39.01.20.10-Gen.
Corrosion-resistant alloy seamless tubes for use as casing, tubing and coupling stock - technical delivery conditions (endorsement of ISO 13680)	DEP 39.01.20.30-Gen.
Care and use of casing and tubing (endorsement of ISO 10405)	DEP 39.01.20.31-Gen.
Shop and field fabrication of orifice meter runs	DEP 61.38.10.10-Gen.
Welding of pipelines and related facilities (amendments/supplements to ANSI/API STD 1104)	DEP 61.40.20.30-Gen.
Field welding of duplex and super duplex stainless steel pipelines (amendments/supplements to API 1104)	DEP 61.40.20.31-Gen.

2.3 CONSTRUCTION MATERIALS

Title	DEP Number
Metallic materials - selected standards	DEP 30.10.02.11-Gen.
Non-metallic materials - selection and application	DEP 30.10.02.13-Gen.
Metallic materials - prevention of brittle fracture	DEP 30.10.02.31-Gen.
Materials for high-temperature conversion process furnace parts	DEP 31.24.40.31-Gen.

2.4 WELDING, GENERAL

Welding of metals (amendments/supplements to API RP 582)	DEP 30.10.60.18-Gen.
Welding on pressurised pipes (amendments/supplements to ANSI/API RP1107)	DEP 30.10.60.30-Gen.
Oxidation of stainless steel weldments	DEP 30.10.60.31-Gen.

2.5 MAINTENANCE AND INSPECTION

Field inspection prior to commissioning of mechanical equipment	DEP 61.10.08.11-Gen.
Equipment and tools for maintenance	DEP 70.08.10.11-Gen
Mechanical maintenance equipment, tools and bolt tensioning	
Equipment and tools for maintenance and inspection	
- Part 4 - Electrical workshop - Test equipment and tools	DEP 70.08.10.13-Gen.
Equipment record cards	DEP 70.10.01.10-Gen.
The preservation of old and new equipment and piping standing idle	DEP 70.10.70.11-Gen.
Cleaning of equipment	DEP 70.10.80.11-Gen.

2.6 OFFSHORE APPLICATIONS

Telecommunications for offshore platforms	DEP 32.71.00.12-Gen.
Design of sea water systems and utility heat transfer systems for offshore installations	DEP 37.05.10.10-Gen.
Design of hose bulk transfer facilities for offshore installations	DEP 37.05.10.12-Gen.
Site specific assessment of mobile offshore jack-up units (amendments/supplements to the SNAME guideline and recommended practice)	DEP 37.11.00.30-Gen.
Drain systems for offshore installations	DEP 37.14.10.10-Gen.
Design of offshore living quarters	DEP 37.17.10.10-Gen.
Design of offshore temporary refuges	DEP 37.17.10.11-Gen.
Design of steel substructures for fixed offshore platforms (amendments/supplements to API RP 2A-LRFD)	DEP 37.19.00.30-Gen.
Weldable structural steels for fixed offshore structures (amendments/supplements to BS 7191)	DEP 37.19.10.30-Gen.
Structural inspection of offshore installations	DEP 37.19.60.10-Gen.
Firewater pumps for offshore installations	DEP 37.29.01.10-Gen.
Subsea production systems (endorsement of ISO 13628 and API 17 series)	DEP 37.80.00.30-Gen.

Mooring of mobile units	DEP 37.91.10.11-Gen.
Oil loading and discharge hoses for offshore mooring installations (amendments/supplements to OCIMF Guide)	DEP 37.91.20.30-Gen.
Pedestal cranes (amendments/supplements to API Spec 2C)	DEP 37.92.10.30-Gen.
Pedestal cranes (amendments/supplements Lloyd's code and BS 2573)	DEP 37.92.10.31-Gen.
Offshore facilities life-saving appliance requirements (amendments/supplements to SOLAS)	DEP 80.80.00.10-Gen.

3. INSTRUMENT ENGINEERING AND TELECOMMUNICATIONS

Title	DEP Number
Human-machine interface in a control room	DEP 32.00.00.11-Gen.
Instrumentation symbols and identification on process engineering flow schemes	DEP 32.10.03.10-Gen.
Control system and instrumented protective functions for fired equipment	DEP 32.24.20.30-Gen.
- System for a single-burner furnace (S24.024 and S 24.026)	
Control system and instrument protective functions for fired equipment System for an automatically started, gas fired, natural draught, multi-burner furnace, safeguarded by pilot burners (S 24.033)	DEP 32.24.20.33-Gen.
Control system and instrumented protective functions for fired equipment - System for a manually-started, forced draught, multi-burner furnace or boiler (S 24.021)	DEP 32.24.20.37-Gen.
Control system and instrumented protective functions for fired equipment - System for an automatically-started, forced draught, multi-burner furnace or boiler (S24.030 or S 24.034)	DEP 32.24.20.38-Gen.
Control system and instrumented protective functions for fired equipment - System for a tangentially gas-fired CO boiler (S 24.036)	DEP 32.24.20.40-Gen.
Control system and instrumented protective functions for fired equipment - Systems for co-fired gas turbine waste heat recovery units	DEP 32.24.20.42-Gen.
Fire, gas and smoke detection systems	DEP 32.30.20.11-Gen.
Instrument engineering procedures	DEP 32.31.00.10-Gen.
Instruments for measurement and control	DEP 32.31.00.32-Gen.
Instrumentation documents and drawings	DEP 32.31.00.34-Gen.
Instrumentation for equipment packages	DEP 32.31.09.31-Gen.
On-line process stream analysis	
- Sample take-off and transportation	DEP 32.31.50.10-Gen.
- Sample conditioning	DEP 32.31.50.11-Gen.
- Analysers	DEP 32.31.50.12-Gen.
- Analyser houses	DEP 32.31.50.13-Gen.
Turbine fiscal metering systems for liquid hydrocarbon	DEP 32.32.00.11-Gen.
Fiscal flow measurement of natural gas	DEP 32.32.00.12-Gen.
Control valves: Selection sizing and specification	DEP 32.36.01.17-Gen.
Installation of on-line instruments	DEP 32.37.10.11-Gen.
Instrument signal lines	DEP 32.37.20.10-Gen
Instrument air lines	DEP 32.37.51.11-Gen.
Instrumentation of depressuring systems	DEP 32.45.10.10-Gen.
Plant telecommunication	DEP 32.71.00.10-Gen.
Telecommunications standards	DEP 32.71.00.11-Gen.
Drilling communications	DEP 32.71.00.13-Gen.
Telecommunications towers and guyed masts	DEP 32.71.00.14-Gen.
Design and installation of telephone cabling	DEP 32.71.00.16-Gen.
Structured cabling systems for telecommunications	DEP 32.71.00.30-Gen.
Microwave systems	DEP 32.71.00.31-Gen.
Classification and implementation of instrumented protective functions	DEP 32.80.10.10-Gen.
Management of instrumented protective functions	DEP 32.80.10.12-Gen.
Instrumented protective systems	DEP 32.80.10.30-Gen.
Inspection and functional testing of instruments	DEP 62.10.08.11-Gen.

4. ELECTRICAL ENGINEERING

Title	DEP Number
Electrical engineering guidelines	DEP 33.64.10.10-Gen.
Electrical network monitoring and control system - application	DEP 33.64.10.11-Gen.
Electrical supply and generation - design and operation	DEP 33.64.10.12-Gen.
Electrical network monitoring and control system - specification	DEP 33.64.10.32-Gen.
Electromagnetic compatibility (EMC) requirements	DEP 33.64.10.33-Gen.
Synchronous AC machines (Amendments/supplements to IEC 60034-1)	DEP 33.65.11.31-Gen.
Packaged unit AC generator sets	DEP 33.65.11.32-Gen.
Power transformers (amendments/supplements to IEC 76 and IEC 726)	DEP 33.65.40.31-Gen.
Static DC uninterruptible power supply (DC UPS) units	DEP 33.65.50.31-Gen.
Static AC uninterruptible power supply unit (Static AC UPS unit)	DEP 33.65.50.32-Gen.
Electric machines - Cage-induction types (Amendments/supplements to IEC 60034-1)	DEP 33.66.05.31-Gen.
Electrical variable speed drive systems	DEP 33.66.05.33-Gen.
Low-voltage switchgear and controlgear assemblies (amendments/supplements to IEC 439-1)	DEP 33.67.01.31-Gen.
High-voltage switchgear and controlgear assemblies (amendments/supplements to IEC 298)	DEP 33.67.51.31-Gen.
Electrical heating system for frost heave prevention of refrigerated hydrocarbon storage tanks	DEP 33.68.30.31-Gen.
Electrical trace heating	DEP 33.68.30.32-Gen.
Electrical process heaters	DEP 33.68.30.33-Gen.
Navigational aids for offshore structures	DEP 33.80.00.30-Gen.
Field commissioning and maintenance of electrical installations and equipment	DEP 63.10.08.11-Gen.

5. CIVIL ENGINEERING (including steel structures)

Title	DEP Number
Heating, ventilation and air conditioning for plant buildings	DEP 31.76.10.10-Gen.
Installation, testing and balancing, and commissioning of HVAC systems	DEP 31.76.10.11-Gen.
Minimum requirements for structural design and engineering	DEP 34.00.01.30-Gen.
Site investigations	DEP 34.11.00.10-Gen.
Site preparation and earthworks including tank foundations and tank farms	DEP 34.11.00.11-Gen.
Geotechnical and foundation engineering	DDD 34.11.00.12-Gen.
Roads, paving, surfacing, slope protection and fencing	DEP 34.13.20.31-Gen.
Drainage and primary treatment facilities	DEP 34.14.20.31-Gen.
Minimum requirements for design and engineering of buildings	DEP 34.17.00.32-Gen.
Reinforced control buildings/Field auxiliary rooms	DEP 34.17.10.30-Gen.
Laboratories	DEP 34.17.10.31-Gen.
Fireproofing of steel structures	DEP 34.19.20.11-Gen.
Reinforced concrete foundations and structures	DEP 34.19.20.31-Gen.
Steel stacks (amendments/supplements to CICIND Model Code)	DEP 34.24.26.31-Gen.
Reinforced concrete stacks	DEP 34.24.27.31-Gen.
Steel structures	DEP 34.28.00.31-Gen.
Standard vertical tanks - Selection, design and fabrication	DEP 34.51.01.31-Gen.
Mounded horizontal cylindrical vessels for pressurised storage of LPG at ambient temperatures (endorsement of EEMUA publication No. 190)	DEP 34.51.11.30-Gen.
Demolition of storage tanks (endorsement of EEMUA 154)	DEP 34.51.90.10-Gen.
Standard vertical tanks - Field erection and testing	DEP 64.51.01.31-Gen.
Field inspection, maintenance and repair of vertical steel storage tanks	DEP 70.51.10.11-Gen.

6. SURFACE PROTECTION (coatings, linings and cathodic protection)

Title	DEP Number
Cathodic protection	DEP 30.10.73.10-Gen.
Design of cathodic protection systems for onshore buried pipelines	DEP 30.10.73.31-Gen.
Design of cathodic protection systems for offshore pipelines (amendments/supplements to DNV RP B401)	DEP 30.10.73.32-Gen.
Installation and commissioning of cathodic protection systems	DEP 30.10.73.33-Gen.
Thermal insulation (amendments/supplements to the CINI Manual "Insulation for Industries")	DEP 30.46.00.31-Gen.
Painting and coating of new equipment	DEP 30.48.00.31-Gen.
Cement lining of pipes	DEP 30.48.30.31-Gen.
Thermal spray coatings of zinc, aluminium and their alloys	DEP 30.48.40.31-Gen.
Electroless nickel plating (amendments/supplements to ASTM B 733)	DEP 30.48.41.31-Gen.
Rubber-lined process equipment and piping	DEP 30.48.60.10-Gen.
Design and installation of chemical-resistant linings for concrete structures	DEP 30.48.60.12-Gen.
Design and installation of chemical-resistant brick lining for process equipment	DEP 30.48.60.13-Gen.
Concrete coating of linepipe	DEP 31.40.30.30-Gen.
External polyethylene and polypropylene coating for line pipe	DEP 31.40.30.31-Gen.
External fusion-bonded epoxy powder coating for line pipe	DEP 31.40.30.32-Gen.
Bituminous enamel coating of steel linepipe	DEP 31.40.30.33-Gen.

Internal coating of line pipe for non-corrosive gas transmission service (amendments/supplements to API RP 5L2)	DEP 31.40.30.35-Gen.
Polychloroprene riser coatings	DEP 31.40.30.36-Gen.
Design of cathodic protection systems for new fixed offshore steel structures (amendments/supplements to DNV RP B401)	DEP 37.19.30.30-Gen.
Refractory bricks and shapes	DEP 44.24.90.31-Gen.
Refractory materials for sulphur recovery units (claus and scot)	DEP 64.24.32.11-Gen.
Insulating and dense refractory concrete linings	DEP 64.24.32.30-Gen.
Maintenance painting	DEP 70.48.10.10-Gen.

7. SAFETY AND FIRE FIGHTING

Water-based fire protection systems for offshore facilities	DEP 80.47.10.12-Gen.
Assessment of the fire safety of onshore installations	DEP 80.47.10.30-Gen.
Active fire protection systems and equipment for onshore facilities	DEP 80.47.10.31-Gen.
Fire-fighting agents and movable fire fighting equipment for onshore applications	DEP 80.47.10.32-Gen.
Fire-fighting vehicles and fire stations	DEP 80.47.10.33-Gen.
Control and mitigation of fires and explosions on offshore production installations (amendments/supplements to ISO 13702)	DEP 80.80.00.11-Gen.
Offshore production installations - Requirements and guidelines for emergency response (amendments/supplements to ISO 15544)	DEP 80.80.00.12-Gen.
Offshore production installations - Guidelines on tools and techniques for identification and assessment of hazardous events (amendments/supplements to ISO 17776)	DEP 80.80.00.13-Gen.

8. DRILLING AND PRODUCTION

Drilling fluid material - specifications and tests (endorsement of ISO 13500)	DEP 38.80.10.30-Gen.
Field testing of drilling fluids - water-based fluids (endorsement of ISO 10414-1)	DEP 38.80.10.31-Gen.
Field testing of drilling fluids – Oil based fluids (amendments/supplements to ISO 10414-2)	DEP 38.80.10.32-Gen.
Specifications for cements and materials for well cementing (endorsement of ISO 10426-1)	DEP 38.80.20.30-Gen.
Selection of materials for life-cycle performance (EP)	DEP 39.01.10.11-Gen.
Wellhead and christmas tree equipment (amendments and supplements to ISO 10423)	DEP 39.01.30.30-Gen.
Downhole equipment - Sub-surface safety valves (endorsement of ISO 10432)	DEP 39.01.30.31-Gen.

PART II NUMERICAL INDICES

1. DEPS

DEP Number	Date of issue	Title	DEP Type	Intended use	Amended by Circular No.	Custodian
00.00.00.30	Apr. 2003	DEP publications (procedural specification)	P	C		OGEM
00.00.05.05	Jun. 2004	Index to DEP publications	-	C		OGEM
00.00.06.06	Jun. 2004	Index to standard drawings	-	C		OGEM
00.00.07.07	Withdrawn	<i>Standard specification index</i>				
00.00.07.30	Dec. 2000	Content and drafting of a functional specification, and a technical specification, and the classification of products, processes and services (endorsement of ISO 13879, ISO 13880 and ISO/TR 13881)	M	F		OGEM
00.00.10.05	Jun. 2004	Index to standard forms	-			OGEM
00.00.20.10	Aug. 2000	The use of SI quantities and units (endorsement of ISO 31 and ISO 1000)	M	F		OGEM
00.30.10.05	Withdrawn	<i>Standard forms – Instrumentation binder (Standard Drawings 37.001 and 37.002)</i>				
01.00.01.30	Mar. 2001	Definition of temperature, pressure and toxicity levels	T	C		OGCH/1
01.00.02.11	Apr. 2003	Preparation of process flow schemes and process engineering flow schemes	M	C		OGCH/1
01.00.02.12	Oct. 2001	Preparation of safeguarding memoranda and process safeguarding flow schemes	M	C		OGCH/1
01.00.04.11	Withdrawn	<i>Preparation of simplified flow schemes</i>				
01.00.09.10	Dec. 1998	Asset breakdown for onshore facilities	M	C		OGPS
02.00.00.10	Oct. 1995	Preparation and microfilming of technical drawings	M	C	15/99, 64/2001, 56/2003	OGEM
05.00.11.11	Withdrawn	<i>Time schedules and progress reporting for new construction projects</i>				
05.00.11.80	Withdrawn	<i>Punch document for critical path project schedule</i>				
05.00.11.81	Withdrawn	<i>Project milestones report</i>				
05.00.11.82	Withdrawn	<i>Bar-line schedule</i>				
05.00.11.83	Withdrawn	<i>Key-date schedule</i>				
05.00.11.84	Withdrawn	<i>Progress graphs</i>				
05.00.11.85	Withdrawn	<i>Man-hours statement</i>				
05.00.55.12	Withdrawn	<i>Job instructions (G-5-1)</i>				
10.02.51.11	Dec. 1994	Steam injection systems for safeguarding thermal cracking units	M	C		OGRT
20.00.10.10	Apr. 2003	Basic data and phase behaviour methods	M	C		OGUD

	20.04.10.10	Dec. 1994	Glycol-type gas dehydration and hydrate inhibition systems	M	C	42/96, 16/99, 45/2001, 57/2003, 15/2004	OGUD
	20.05.50.10	Dec. 1998	Heat transfer fluid (HTF) systems	M	C		OGRU
	20.05.60.10	Jul. 1996	Fuel systems	M	C		OGRU
	20.21.00.31	Dec. 1998	Fouling resistances for heat transfer equipment	T	C		OGEH
	30.00.60.10	Nov. 2003	Human factors engineering in projects	M			SI-HE/2
	30.00.60.12	Nov. 2003	Human factors engineering - investment justification model	M			SI-HE/2
	30.00.60.13	May 2004	Human factors engineering - valve analysis	M			SI-HE/2
	30.00.60.15	May 2004	Human factors engineering - human/machine interface and control room design	M			SI-HE/2
	30.06.10.10	Withdrawn	<i>Introduction and physical properties and characteristics of LPG</i>				
	30.06.10.11	Nov. 2003	Equipment in LPG installations	M			OGLM
	30.06.10.12	Nov. 2003	Pressurised bulk storage installations for LPG	M			OGLM
	30.06.10.13	Jul. 1997	LPG - bulk transfer and transportation	M	C		OGLM
	30.06.10.14	Withdrawn	<i>LPG - Cylinder filling and storage plants</i>				
	30.06.10.15	Withdrawn	<i>LPG - Cylinders and skid tanks - Consumer equipment and installations</i>				
	30.06.10.20	Oct. 1992	ESD systems for loading and discharging refrigerated and pressurised LNG and LPG carriers	M	C	17/99, 03/2002	OGGL
	30.06.11.11	Withdrawn	<i>Pressure storage facilities for LPG (30.06.10.12)</i>				
	30.10.01.10	Jun. 2004	Index to requisitions	M			OGEM
	30.10.02.11	Sep. 2002	Metallic materials - selected standards	M	C		OGEI/1
	30.10.02.13	Apr. 2003	Non-metallic materials - selection and application	M	C		OGEI/1
	30.10.02.31	Oct. 1995	Metallic materials - prevention of brittle fracture	T	F	42/97	OGEI/1
	30.10.02.32	Oct. 2001	Materials and fabrication requirements for Cr-Mo heavy wall pressure vessels (amendments/supplements to API RP 934)	T	F		OGEI/1
	30.10.05.11	Jul. 1996	Plant model construction and review	P	C		OGEM
	30.10.40.11	Withdrawn	<i>Jointing material</i>				
	30.10.60.18	May 2004	Welding of metals (amendments/supplements to API RP 582)	M			OGEI/1
	30.10.60.19	Withdrawn	<i>Welding tubular goods, pressure vessels and storage tanks</i>				
	30.10.60.19	Withdrawn	<i>Welding procedure specification (binder)</i>				

30.10.60.21	Withdrawn	<i>Testing of filler metals for welding</i>					
30.10.60.22	Withdrawn	<i>Welding and inspection requirements for equipment not covered by recognized standards and/or codes</i>					
30.10.60.30	Dec. 1998	Welding on pressurised pipes (amendments/supplements to ANSI/API RP1107)	T	F	15/2002, 21/2004		OGEI/2
30.10.60.31	Dec. 1998	Oxidation of stainless steel weldments	T	F			OGEI/2
30.10.73.10	Nov. 2003	Cathodic protection	M		10/2004		OGEI/4
30.10.73.31	Dec. 1992	Design of cathodic protection systems for onshore buried pipelines	T	C			OGEI/4
30.10.73.32	Jul. 1996	Design of cathodic protection systems for offshore pipelines (amendments/supplements to DNV RP B401)	T	F			OGEI/4
30.10.73.33	Jan. 2000	Installation and commissioning of cathodic protection systems	T	C			OGEI/4
30.46.00.31	Jul. 1999	Thermal insulation (amendments/supplements to the CINI Manual "Insulation for Industries")	T	F	35/2001		OGEC
30.46.00.32	Withdrawn	<i>Thermal insulation for cold and dual-temperature services (30.46.00.31)</i>					
30.48.00.10	Withdrawn	<i>Painting and coating (30.48.00.31, 70.48.10.10)</i>					
30.48.00.31	Dec. 1995	Painting and coating of new equipment	T		80/2003		OGEI/1
30.48.30.31	Dec. 1998	Cement lining of pipes	T		15/2003		OGEC
30.48.40.31	May 2004	<i>Thermal spray of coatings of zinc, aluminium and their alloys</i>	T				OGEI/4
30.48.41.31	Oct. 1995	Electroless nickel plating (amendments/supplements to ASTM B 733)	T	F			OGEI/1
30.48.50.11	Withdrawn	<i>Requirements for PTFE lined piping (31.38.01.11)</i>					
30.48.50.12	Withdrawn	<i>Plastic-lined steel pipes and fittings (31.38.01.11)</i>					
30.48.50.31	Withdrawn	<i>PTFE coating of steel surfaces</i>					
30.48.50.32	Withdrawn	<i>Requirements for plastic-lined steel pipes and fittings (30.48.50.12)</i>					
30.48.60.10	Dec. 1997	Rubber-lined process equipment and piping	M	C	30/98		OGEI/1
30.48.60.12	Aug. 2000	Design and installation of chemical-resistant linings for concrete structures	M	C			OGEC
30.48.60.13	Apr. 2003	Design and installation of chemical-resistant brick lining for process equipment	M	C			OGEI/1
30.48.60.22	Withdrawn	<i>Installation of chemical-resistant linings for concrete structures (30.48.60.12)</i>					
30.48.60.23	Withdrawn	<i>Installation of chemical-resistant brick linings for process equipment (30.48.60.13)</i>					

30.48.60.30	Withdrawn	<i>Requirements for rubber linings for process equipment and piping (30.48.60.10)</i>					
30.48.60.33	Withdrawn	<i>Chemical-resistant (ceramic) lining materials (30.48.60.12)</i>					
30.48.60.34	Withdrawn	<i>Erosion resistant refractory linings (64.24.32.30)</i>					
30.48.70.30	Jul. 1998	Glass lined steel equipment and piping	T	F	70/99	OGEI/1	
30.75.10.30	Jul. 1999	Water-tube boiler installations	T	F	02/2000 19/2001	OGEH	
30.75.10.31	Dec. 1999	Gas turbine heat recovery steam generators	T	F	20/2001, 47/2001	OGEH	
31.01.10.10	Apr. 2003	Chemical injection facilities	M	C		OGEI/2	
31.06.11.11	Jul. 1998	Loading facilities for bulk road vehicles	M	G	58/2003	OGLM	
31.06.11.12	Withdrawn	<i>Shell loading and discharging manuals - Loading facilities for bulk road vehicles - Part 2 - Design of top loading facilities (31.06.11.11)</i>					
31.06.11.13	Withdrawn	<i>Shell loading and discharging manuals - Loading facilities for bulk road vehicles - Part 3 - Design of bottom loading facilities (31.06.11.11)</i>					
31.06.11.14	Withdrawn	<i>Shell loading and discharging manuals - Loading facilities for bulk road vehicles - Part 4 - Ancillary equipment, services and site requirements (31.06.11.11)</i>					
31.06.12.11	Withdrawn	<i>Rail tank wagon loading and discharging Part 1, Vol. 1: Selection, design and construction</i>					
31.06.12.12	Withdrawn	<i>Rail tank wagon loading and discharging Part 1, Vol. 2: Selection, design and construction</i>					
31.06.12.13	Withdrawn	<i>Rail tank wagon loading and discharging Part 2: Layouts, examples and drawings</i>					
31.10.00.31	May 2004	Noise control (amendments/supplements to ISO 15664)	T			OGEM	
31.10.03.10	Dec. 1998	Symbols and identification system – Mechanical	M	C		OGEM	
31.10.11.31	Oct. 2001	Gaseous oxygen systems	T	C	35/2003	OGRU	
31.10.21.30	Withdrawn	<i>Bolt tensioning (70.08.10.11)</i>					
31.20.20.31	Sep. 2002	Internals for columns	T	F		OGRD	
31.21.00.19	Withdrawn	<i>Guide for the specification of shell-and-tube heat exchangers (31.21.00.93)</i>					
31.21.01.30	May 2004	Shell-and-tube heat exchangers (amendments/supplements to ISO 16812)	T			OGEH	

31.21.01.31	Nov. 1989	Selected construction materials for shell-and-tube heat exchangers	T	C	22/92, 55/97, 11/2002	OGEI/1
31.21.01.32	Sep. 2002	Plate and frame heat exchangers (amendments/supplements to ISO 15547)	T	C		OGEH
31.21.20.31	Withdrawn	<i>Shell-and-tube heat exchangers with hot-dip galvanized tubes</i>				
31.21.70.31	Mar. 2001	Air-cooled heat exchangers (amendments/supplements to ISO 13706)	T	F		OGEH
31.22.01.31	Dec. 1995	Rotating disc contactors	T	F		OGEM
31.22.05.11	Sep. 2002	Gas/liquid separators - Type selection and design rules	M	C		OGRD
31.22.05.12	Dec. 1996	Liquid/liquid and gas/liquid/liquid (three-phase) separators - Type selection and design rules	M	C	15/2000	OGRD
31.22.10.31	Withdrawn	<i>Pressure vessels (amendments/supplements to BS 1515 Part 1)</i>				
31.22.10.32	Mar. 2001	Pressure vessels (amendments/supplements to PD 5500)	T	F	22/2004	OGEM
31.22.10.33	Withdrawn	<i>Tolerances for pressure vessels (31.22.10.32)</i>				
31.22.10.34	Withdrawn	<i>Pressure vessels (amendments/supplements to AS 1210)</i>				
31.22.10.35	Dec. 1999	Manufacturing report for pressure vessels	T	C		OGCC
31.22.10.36	Withdrawn	<i>LPG storage vessels for aboveground storage of C₃ and heavier hydrocarbons (30.06.10.12, 31.22.10.32)</i>				
31.22.11.32	May 2004	<i>Unfired pressure vessels (amendments/supplements to EN 13445)</i>	T			OGEM
31.22.20.31	Mar. 2001	Pressure vessels (amendments/supplements to ASME Section VIII, Division 1 and Division 2)	T	F	23/2004	OGEM
31.22.30.14	Sep. 2002	Glass-fibre reinforced epoxy and polyester vessels - design and installation	M	F		OGEI/1
31.22.30.24	Withdrawn	<i>Installation of glass-fibre reinforced epoxy vessels and equipment (31.22.30.14)</i>				
31.22.30.34	Withdrawn	<i>Glass-fibre reinforced epoxy and polyester vessels - manufacturing requirements (31.22.30.14)</i>				
31.22.90.30	Withdrawn	<i>Seamless steel transportable gas containers (endorsement of BS 5045-1)</i>				
31.24.00.30	Oct. 1995	Fired heaters, including waste heat boilers (amendments/supplements to API 560)	T	F	33/96, 59/2003	OGEH

31.24.15.31	Withdrawn	<i>SI/PM-type vertical furnaces, including waste heat boilers (31.24.00.30)</i>					
31.24.40.12	Oct. 2001	Fabric expansion joints	M	F			OGEI/1
31.24.40.31	Dec. 2000	Materials for high-temperature conversion process furnace parts	T	F			OGEI/1
31.24.49.31	Dec. 1999	Fabrication of heater piping	T	F			OGEI/1
31.24.66.11	Withdrawn	<i>Mobile ignition unit for furnaces and steam boilers</i>					
31.24.66.12	Withdrawn	<i>Mobile ignition unit for LMV line burners of sulphur recovery units</i>					
31.25.00.10	Dec. 1999	Hoisting facilities and weather protection for rotating equipment	M	C			OGER
31.27.21.10	Mar. 2001	Filters for removing particles from hydroprocessor feeds - type selection and design rules	M	C			OGEM
31.27.21.30	Nov. 2003	Dry electrostatic precipitators	T		09/2004		OGRC
31.29.00.10	Nov. 2003	Installation of rotating equipment (amendments/supplements to API RP 686)	M				OGER
31.29.00.30	Dec. 2000	Oil mist lubrication systems	T	C			OGER
31.29.00.31	Withdrawn	<i>Noise limitation (31.10.00.31)</i>					
31.29.00.32	Nov. 2003	Petroleum and natural gas industries - high-speed special-purpose gear units (amendments/supplements to ISO 13691)	T				OGER
31.29.00.33	Jul. 1998	Shaft sealing systems for centrifugal and rotary pumps (amendments/supplements to API 682)	T	F	24/2004		OGER
31.29.00.34	Jul. 1998	Dry gas seal systems for centrifugal compressors	M	F			OGER
31.29.00.36	Oct. 2001	Flexible couplings for mechanical power transmission - special purpose applications (amendments/supplements to ISO 10441 and ISO 14691)	T	F			OGER
31.29.02.11	Jul. 1998	Pumps - Type Selection	M	C	30/2001		OGER
31.29.02.30	May 2004	<i>Centrifugal pumps (amendments/supplements to ISO 13709)</i>	T				OGER
31.29.05.31	Withdrawn	<i>Vertical in-line centrifugal pumps</i>					
31.29.06.30	Apr. 2003	Centrifugal submerged motor pumps (in refrigerated product or pressurised storage service)	T	F			OGER
31.29.06.31	Nov. 2003	Seawater lift pumps	T				OGER
31.29.12.30	Dec. 1999	Reciprocating positive displacement pumps and metering pumps (amendments/supplements to API 674 and API 675)	T	F	01/2002, 25/2004		OGER
31.29.40.10	Jul. 1998	Compressors - Selection, testing and installation	M	C			OGER
31.29.40.30	Dec. 1998	Centrifugal and axial compressors (amendments/supplements to API Std 617)	T	F	23/99		OGER

31.29.40.31	Dec. 1999	Reciprocating compressors (amendments/supplements to API Std 618)	T	F	06/2000, 48/2001, 16/2003, 26/2004	OGER
31.29.40.32	Dec. 1999	Rotary-type positive displacement compressors (amendments/supplements to API 619)	T	F	27/2004	OGER
31.29.40.33	Sep. 2002	Packaged, integrally geared, centrifugal plant and instrument air compressors (amendments/supplements to API Std 672)	T	F		OGER
31.29.42.30	Jul. 1997	Liquid ring vacuum pumps and compressors (amendments/supplements to API 681)	T	F	28/2004	OGEM
31.29.47.30	Jan. 1998	Centrifugal fans (amendments/supplements to API 560 Appendix E)	T	F	27/99, 29/2004	OGER
31.29.56.31	Dec. 1997	Steam jet vacuum ejector sets	T	F	28/99	OGEM
31.29.60.10	Apr. 2003	Steam turbines - Selection, testing and installation	M	C		OGER
31.29.60.30	Aug. 2000	General-purpose steam turbines (amendments/supplements to API Std 611)	T	F		OGER
31.29.60.31	Dec. 1998	Special-purpose steam turbines (amendments/supplements to API Std 612)	T	F	30/99	OGER
31.29.60.32	Dec. 1999	Lubrication, shaft-sealing and control oil systems and auxiliaries for petroleum, chemical and gas industry services (amendments/supplements to API 614)	T	F		OGER
31.29.70.11	Dec. 1998	Combustion gas turbines - Selection, testing and installation	M	C	30/2004	OGER
31.29.70.31	Dec. 1999	Combustion gas turbines (amendments/supplements to API 616)	T	F	31/2004	OGER
31.29.70.32	Dec. 1999	Gas turbine combustion air intake and exhaust systems	T	F		OGEM
31.29.80.30	Dec. 2000	Diesel engines	T	F		OGER
31.29.90.30	Mar. 2001	Spark ignited gas fuelled engines	T	F		OGER
31.36.00.30	Oct. 2001	Pipeline transportation systems - pipeline valves (amendments/supplements to ISO 14313)	T	F		EPT-PR
31.36.10.30	Sep. 2002	Hydraulic systems for remote operation of shut-off valves	T	F		OGEM
31.37.00.11	Jul. 1985	Instrument air supply	M	C		OGRU
31.38.01.10	Nov. 2003	Piping classes - basis of design	M			OGEM
31.38.01.11	Sep. 2002	Piping - general requirements	M	C	27/2003, 81/2003, 32/2004	OGEM
31.38.01.12	Apr. 2003	Piping classes - refining and chemicals	M	C		OGEM
31.38.01.13	Dec. 1998	Compilation of bill of material for piping isometrics	M	C	26/2002	OGEM

31.38.01.15	Dec. 1999	Piping classes - exploration and production	M	C		OGEM
31.38.01.21	Dec. 1998	Compilation of a specification for piping systems	M	C		OGEM
31.38.01.29	Dec. 1997	Pipe supports	M	C	07/2000, 82/2003	OGEM
31.38.01.31	Apr. 2003	Shop and field fabrication of piping	T	F		OGEM
31.38.30.11	Dec. 1997	Protective steam heating of piping systems	M	C	51/2001	OGEM
31.38.60.10	Dec. 1998	Hot-tapping on pipelines, piping and equipment	M	C	66/99	EPT-PR
31.38.70.24	Withdrawn	<i>Design and installation of glass-fibre reinforced epoxy and polyester piping (31.40.10.19)</i>				
31.38.70.25	Withdrawn	<i>Fabrication and installation of thermoplastics piping systems (31.38.01.11)</i>				
31.38.70.34	Withdrawn	<i>Requirements for glass-fibre reinforced epoxy pipes and fittings (31.38.70.37)</i>				
31.38.70.35	Withdrawn	<i>Requirements for glass-fibre reinforced polyester pipes and fittings (31.38.70.37)</i>				
31.38.70.36	Withdrawn	<i>Requirements for thermoplastics pipes and fittings (31.38.01.11)</i>				
31.38.70.37	Withdrawn	<i>Requirements for glass-fibre reinforced epoxy and polyester pipes and fittings (31.40.10.19)</i>				
31.38.82.31	Sep. 2002	PTFE bellows	T	F		OGEI/1
31.40.00.10	Nov. 1993	Pipeline engineering	M	C	16/2000, 12/2002, 60/2003, 33/2004	EPT-PR
31.40.00.19	Apr. 2003	Corrosion mitigation strategy for wet sour gas carbon steel pipelines	M	C		OGEI/2
31.40.10.10	Dec. 1999	Riser design	M	F	16/2002	EPT-PR
31.40.10.12	Jul. 1998	Design of multiple-slug catchers	M	F	17/2002, 61/2003	EPT-PR
31.40.10.13	Dec. 1998	Design of pipeline pig trap systems	T	F	18/2002, 34/2004	EPT-PR
31.40.10.14	Nov. 2003	Pipeline overpressure protection	M			EPT-PR
31.40.10.15	Dec. 1997	Analysis of spans for submerged pipelines	M	C		EPT-PR
31.40.10.16	Dec. 1998	Upheaval buckling of pipelines	M	C		EPT-PR
31.40.10.17	Dec. 1997	Pipeline/trawl gear interaction	M	C		EPT-PR
31.40.10.19	Nov. 2003	GRP pipelines and piping systems (amendments/supplements to ISO 14692)	M			OGEI/1
31.40.10.31	Withdrawn	<i>Glass fibre reinforced plastic pipes and fittings (amendments/supplements to API Spec 15HR) (31.40.10.19)</i>				
31.40.20.30	Withdrawn	<i>Linepipe for use in oil and gas operations under non-sour conditions (amendments/supplements to API Spec 5L) (31.40.20.35, 31.40.20.37)</i>				

31.40.20.31	Withdrawn	Linepipe for use in oil and gas operations under sour conditions (amendments/supplements to API Spec 5L) (31.40.20.35, 31.40.20.37)					
31.40.20.32	Oct. 1995	CRA clad or lined steel pipe (amendments/supplements to API Spec 5LD)	T	F	25/2002	OGEI/2	
31.40.20.33	Sep. 2002	Linepipe induction bends (amendments/supplements to ISO 15590-1)	T	F		OGEI/2	
31.40.20.34	Dec. 1998	Welded and seamless duplex and super duplex stainless steel line pipe (amendments/supplements to API Spec 5LC)	T	F		OGEI/2	
31.40.20.35	Dec. 1999	Linepipe for non-critical service (amendments/supplements to ISO 3183-1)	T	F	19/2002	OGEI/2	
31.40.20.36	Mar. 2001	Weldable martensitic stainless steel line pipe for use in oil and gas operations (amendments/supplements to API spec 5LC)	T	F		OGEI/2	
31.40.20.37	Dec. 2000	Linepipe for critical service (amendments/supplements to ISO 3183-3)	T	F		OGEI/2	
31.40.21.30	Dec. 1995	Pipeline fittings (amendments/supplements to MSS SP-75)	T	F	20/2002	OGEI/2	
31.40.21.31	Dec. 1999	Pipeline isolating joints (amendments/supplements to MSS SP-75)	T	F		EPT-PR	
31.40.21.32	Withdrawn	<i>Pig trap end closures</i> (amendments/supplements to MSS SP-75) (31.40.10.13)					
31.40.21.33	Sep. 2002	Pig signallers - intrusive type	T	F	35/2004	EPT-PR	
31.40.21.34	Jul. 1998	Carbon and low alloy steel pipeline flanges for use in oil and gas operations (amendments/supplements to MSS SP-44)	M	F	61/99, 24/2002	OGEI/2	
31.40.30.30	Dec. 1999	Concrete coating of linepipe	T	C		EPT-PR	
31.40.30.31	Apr. 2003	External polyethylene and polypropylene coating for line pipe	T	F		OGEI/1	
31.40.30.32	Apr. 2003	External fusion-bonded epoxy powder coating for line pipe	T	F		OGEI/1	
31.40.30.33	Oct. 2001	Bituminous enamel coating of steel linepipe	T	F	75/2003	OGEI/1	
31.40.30.34	Dec. 1999	Thermoplastic lined pipelines	T	F	05/2002	OGEI/4	
31.40.30.35	Jul. 1998	Internal coating of line pipe for non-corrosive gas transmission service (amendments/supplements to API RP 5L2)	T	F		OGEI/4	
31.40.30.36	Apr. 2003	Polychloroprene riser coatings	T	F		OGEI/4	
31.40.40.38	Jun. 1993	Hydrostatic pressure testing of new pipelines	T	C	54/2002	EPT-PR	
31.40.50.30	Oct. 1994	Precommissioning of pipelines	T	C		EPT-PR	
31.40.60.11	Sep. 2002	Pipeline leak detection	M	C		EPT-PR	

31.40.60.12	Dec. 1995	Pipeline Repairs (supplements to ANSI/ASME B31.4 and B31.8)	M	C	21/2002, 62/2003	OGEI/2
31.40.70.30	Dec. 1997	Quarter-turn on/off actuators	M	F	72/2003	OGES
31.46.00.31	Jul. 1997	Acoustic insulation for piping	T	F	17/2000	OGEM
31.51.10.31	Dec. 1998	Side-entry mixers for storage tanks and vessels	T	F		OGUF
31.76.10.10	Jul. 1998	Heating, ventilation and air conditioning for plant buildings	M	C		OGEC
31.76.10.11	Dec. 1999	Installation, testing and balancing, and commissioning of HVAC systems	M	C		OGEC
32.00.00.10	Withdrawn	<i>The division of responsibilities between instrument and electrical engineering disciplines</i>				
32.00.00.11	Jul. 1997	Human-machine interface in a control room	M	C		OGES
32.10.03.10	Jul. 1999	Instrument symbols and identification on process engineering flow schemes	M	F	57/2001	OGES
32.10.03.11	Withdrawn	Symbols and identification system - Instrumentation. Part 2: - Functional logic diagrams (32.10.03.10)				
32.10.03.12	Withdrawn	Symbols and identification system - Instrumentation. Part 3: - Instrumentation loop diagrams (32.10.03.10)				
32.24.20.30	Jul. 1997	Control system and instrumented protective functions for fired equipment - System for a single-burner furnace (S 24.024 and S 24.026)	T	C	56/97	OGEH
32.24.20.33	Dec. 1998	Control system and instrument protective functions for fired equipment System for an automatically started, gas fired, natural draught, multi-burner furnace, safeguarded by pilot burners (S 24.033)	T	C		OGEH
32.24.20.37	Jan. 1998	Control system and instrumented protective functions for fired equipment - System for a manually-started, forced draught, multi-burner furnace or boiler (S 24.021)	M	C		OGEH
32.24.20.38	Jul. 1997	Control system and instrumented protective functions for fired equipment - System for an automatically-started, forced draught, multi-burner furnace or boiler (S24.030 or S 24.034)	T	C	54/97	OGEH
32.24.20.40	Jul. 1997	Control system and instrumented protective functions for fired equipment - System for a tangentially gas-fired CO boiler (S 24.036)	T	C	57/97	OGEH
32.24.20.42	Apr. 2003	Control system and instrumented protective functions for fired equipment - Systems for co-fired gas turbine waste heat recovery units	T	F		OGEH

32.30.10.30	Withdrawn	System cabinets					
32.30.20.11	Sep. 2002	Fire, gas and smoke detection systems	M	C			OGES
32.31.00.10	Jul. 1985	Instrument engineering procedures	M	C	57/95, 43/99, 65/2001		OGES
32.31.00.32	Jul. 1999	Instruments for measurement and control	M	C	52/2001, 36/2004		OGES
32.31.00.34	Dec. 1995	Instrumentation documents and drawings	T	F	39/99, 53/2001, 37/2004		OGES
32.31.09.31	May 2004	Instrumentation for equipment packages	P				OGES
32.31.50.10	Apr. 2003	On-line process stream analysis - Sample take-off and transportation	M	C			OGES
32.31.50.11	Sep. 2002	On-line process stream analysis - Sample conditioning	M	F	38/2004		OGES
32.31.50.12	Apr. 2003	On-line process stream analysis – Analysers	M	C			OGES
32.31.50.13	Jan. 1998	On-line process stream analysis - Analyser houses	M	C	11/2000		OGES
32.31.50.31	Withdrawn	<i>On-line process stream analysers</i>					
32.32.00.11	Sep. 2002	Turbine fiscal metering systems for liquid hydrocarbons	T	C	63/2003		OGUM
32.32.00.12	Dec. 1999	Fiscal flow measurement of natural gas	T	F			OGUM
32.32.10.10	Withdrawn	<i>Flow instruments (32.31.00.32)</i>					
32.36.01.16	Withdrawn	<i>Sizing of control valves (32.36.01.17)</i>					
32.36.01.17	Apr. 2003	Control valves - selection, sizing and specification	M	F	39/2004		OGES
32.37.00.33	Withdrawn	<i>Mounting of plant instruments (32.31.00.32)</i>					
32.37.10.11	Oct. 2001	Installation of on-line instruments	M	C	40/2004		OGES
32.37.10.31	Withdrawn	<i>Prefabricated instrument consoles (32.30.10.30, now also withdrawn with no replacement)</i>					
32.37.10.34	Withdrawn	<i>Instrument nameplates (32.31.00.32)</i>					
32.37.20.10	May 2004	Instrument signal lines	M				OGES
32.37.20.31	Withdrawn	<i>System cabling (32.37.20.10)</i>					
32.37.51.11	Jul. 1985	Instrument air lines	M	C	48/99, 55/2001		OGES
32.45.10.10	Nov. 2003	Instrumentation of depressuring systems	M				OGES
32.71.00.10	Jul. 1998	Plant telecommunication	M	C			EPT-IO-ST
32.71.00.11	May 2004	Telecommunications standards	M				EPT-IO-ST
32.71.00.12	Apr. 1993	Telecommunications for offshore platforms	M	C	71/2003		EPT-IO-ST
32.71.00.13	Oct. 1995	Drilling communications	M	C			EPT-IO-ST
32.71.00.14	Jul. 1996	Telecommunications towers and guyed masts	M	F			EPT-IO-ST
32.71.00.16	Dec. 1997	Design and installation of telephone cabling	M	C			EPT-IO-ST

32.71.00.30	Dec. 1998	Structured cabling systems for telecommunications	T	F		EPT-IO-ST
32.71.00.31	Dec. 1997	Microwave systems	M	C		EPT-IO-ST
32.80.10.10	Oct. 2001	Classification and implementation of instrumented protective functions	M	C		OGES
32.80.10.12	Oct. 2001	Management of instrumented protective functions	M	C	64/2003	OGES
32.80.10.30	Jul. 1996	Instrumented protective systems	T	F	43/2004	OGES
33.10.03.10	Withdrawn	<i>Symbols and identification system – Electrical</i>				
33.64.10.10	Sep. 2002	Electrical engineering guidelines	M	C	25/2003	OGEE
33.64.10.11	Jan. 1999	Electrical network monitoring and control system - application	M	C		OGEE
33.64.10.12	Jan. 1999	Electrical supply and generation - design and operation	M	C		OGEE
33.64.10.30	Withdrawn	<i>Electric power and lighting installations (33.64.10.10)</i>				
33.64.10.32	Jan. 1999	Electrical network monitoring and control system - specification	M	C	16/2004	OGEE
33.64.10.33	Sep. 2002	Electromagnetic compatibility (EMC) requirements	M	C	17/2004	OGEE
33.65.11.31	Jan. 1999	Synchronous AC machines (amendments/supplements to IEC 60034-1)	T	F	17/2003	OGEE
33.65.11.32	Apr. 2003	Packaged unit AC generator sets	T	F		OGEE
33.65.40.31	Oct. 2001	Power transformers (amendments/supplements to IEC 60076 and IEC 60726)	T	F	77/2003	OGEE
33.65.50.31	Dec. 2000	Static DC uninterruptible power supply (DC UPS) units	T	F		OGEE
33.65.50.32	Dec. 1998	Static AC uninterruptible power supply unit (Static AC UPS unit)	T	F		OGEE
33.66.05.10	Withdrawn	<i>Engineering guidelines variable speed drive systems (technique and applications)</i>				
33.66.05.31	Jan. 1999	Electric machines - Cage-induction types (Amendments/supplements to IEC 60034-1)	T	F		OGEE
33.66.05.33	Mar. 1995	Electrical variable speed drive systems	T	F		OGEE
33.67.01.31	Jan. 1998	Low-voltage switchgear and controlgear assemblies (amendments/supplements to IEC 439-1)	T	F		OGEE
33.67.51.31	Jul. 1998	High-voltage switchgear and controlgear assemblies (amendments/supplements to IEC 298)	T	F		OGEE
33.68.30.31	Oct. 2001	Electrical heating system for frost heave prevention of refrigerated hydrocarbon storage tanks	T	F		OGEE
33.68.30.32	Dec. 2000	Electrical trace heating	T	F		OGEE
33.68.30.33	Oct. 2001	Electrical process heaters	T	F		OGEE
33.80.00.30	Aug. 2000	Navigational aids for offshore structures	T	F		OGEE

34.00.01.30	Jul. 1998	Minimum requirements for structural design and engineering	T	C		OGEC
34.11.00.10	Dec. 1999	Site investigations	M	C		OGEC
34.11.00.11	Apr. 2003	Site preparation and earthworks including tank foundations and tank farms	M	C		OGEC
34.11.00.12	Apr. 1987	Geotechnical and foundation engineering	M	C		OGEC
34.13.20.31	Apr. 2003	Roads, paving, surfacing, slope protection and fencing	T	C		OGEC
34.14.20.31	Dec. 1993	Drainage and primary treatment facilities	T	C	59/2001, 41/2003	OGEC
34.17.00.32	Sep. 2002	Minimum requirements for design and engineering of buildings	T	C	19/2003	OGEC
34.17.10.30	Sep. 2002	Reinforced control buildings/Field auxiliary rooms	T	C		OGEC
34.17.10.31	Dec. 1996	Laboratories	T	C		OGEC
34.18.51.10	Withdrawn	Minimum requirements for the construction and maintenance of tank foundations, bund walls and drainage systems for small storage installations (34.11.00.11)				
34.19.20.11	Dec. 1999	Fireproofing of steel structures	M	C		OGEC
34.19.20.31	Dec. 1998	Reinforced concrete foundations and structures	T	C	09/2000, 09/2002	OGEC
34.24.26.31	Apr. 2003	Steel stacks (amendments/supplements to CICIND Model Code)	T	C		OGEC
34.24.27.31	Dec. 1999	Reinforced concrete stacks	T	C		OGEC
34.28.00.31	Jul. 1996	Steel structures	T	C	85/2003	OGEC
34.51.01.31	Sep. 1992	Standard vertical tanks - Selection, design and fabrication	T	F		OGEC
34.51.11.30	Oct. 2001	Mounded horizontal cylindrical vessels for pressurised storage of LPG at ambient temperatures (endorsement of EEMUA publication No. 190)	T	F		OGEC
34.51.90.10	Sep. 2002	Demolition of storage tanks (endorsement of EEMUA 154)	M	C		OGEC
34.76.30.31	Withdrawn	<i>Heating and air conditioning in substations and switch houses (31.76.10.10)</i>				
37.05.10.10	Sep. 2002	Design of sea water systems and utility heat transfer systems for offshore installations	M	F	73/2003	OGUD
37.05.10.11	Dec. 1998	Diesel oil systems in oil and gas production facilities	M	C		OGUD
37.05.10.12	Aug. 2000	Design of hose bulk transfer facilities for offshore installations	M	F		OGUD
37.11.00.30	May 2004	Site specific assessment of mobile offshore jack-up units (amendments/supplements to the SNAME guideline and recommended practice)	P			EPT-PER
37.14.10.10	Dec. 1998	Drain systems for offshore installations	M	C		OGUD
37.17.10.10	Dec. 1998	Design of offshore living quarters	M	F		OGUD

37.17.10.11	Mar. 1994	Design of offshore temporary refuges	M	C	65/2003	OGCH/1
37.19.00.30	Mar. 1994	Design of steel substructures for fixed offshore platforms (amendments/supplements to API RP 2A-LRFD)	P	C		EPT-OE-FL
37.19.10.30	Feb. 1993	Weldable structural steels for fixed offshore structures (amendments/supplements to BS 7191)	T	F		EPT-OE-FL
37.19.30.30	Dec. 1995	Design of cathodic protection systems for new fixed offshore steel structures (amendments/supplements to DNV RP B401)	T	F		OGEI/2
37.19.60.10	Oct. 2001	Structural inspection of offshore installations	M	C		EPT-OE-FL
37.29.01.10	Dec. 1998	Firewater pumps for offshore installations	M	F		OGER
37.80.00.30	Aug. 2000	Subsea production systems (endorsement of ISO 13628 and API 17 series)	T	F		EPT-OE-FL
37.91.10.11	Jul. 1998	Mooring of mobile units	M	C	74/2003	EPT-OE-FL
37.91.20.30	Aug. 2000	Oil loading and discharge hoses for offshore mooring installations (Amendments/supplements to OCIMF Guide)	T	F		OGEI/1
37.92.10.30	Oct. 1994	Pedestal cranes (amendments/supplements to API Spec 2C)	T	F	13/2002	OGUD
37.92.10.31	Oct. 1994	Pedestal cranes (amendments/supplements to Lloyd's code and BS 2573)	T	F	14/2002	OGUD
38.80.10.30	Dec. 1999	Drilling fluid material - specifications and tests (Endorsement of ISO 13500)	T	F		EPT-OE-WL
38.80.10.31	Sep. 2002	Field testing of drilling fluids - water-based fluids (endorsement of ISO 10414-1)	T	F		EPT-OE-WL
38.80.10.32	Apr. 2003	Field testing of drilling fluids – Oil based fluids (amendments/supplements to ISO 10414-2)	T	F		EPT-OE-WL
38.80.20.30	Mar. 2001	Specifications for cements and materials for well cementing (endorsement of ISO 10426-1)	T	F		EPT-OE-WL
39.01.10.11	Sep. 2002	Selection of materials for life-cycle performance (EP)	M	F	76/2003	OGEI/2
39.01.20.10	Oct. 1995	L80 13%Cr casing and tubing (amendments/supplements to ISO/DIS 11960.2)	T	F		EPT-OE-PL
39.01.20.30	Dec. 2000	Corrosion-resistant alloy seamless tubes for use as casing, tubing and coupling stock - technical delivery conditions (endorsement of ISO 13680)	T	F		EPT-OE-PL
39.01.20.31	Dec. 2000	Care and use of casing and tubing (endorsement of ISO 10405)	T	F		EPT-OE-PL
39.01.30.30	May 2004	Wellhead and christmas tree equipment (amendments and supplements to ISO 10423)	T	F		EPT-OE-PL

39.01.30.31	Aug. 2000	Downhole equipment - Sub-surface safety valves (endorsement of ISO 10432)	T	F		EPT-OE-PL
39.40.20.30	Withdrawn	<i>High pressure metal/polymer flexible pipe for use in oil and gas operations as flowlines and risers (37.80.00.30)</i>				
40.10.01.11	Dec. 1997	Capital project coding system	M	C		OGPS
40.10.10.41	Withdrawn	<i>List of approved suppliers of longitudinally welded stainless pipes and tubes</i>				
40.10.21.40	Withdrawn	<i>List of approved suppliers of seamless aluminium brass condenser/cooler tubes</i>				
40.10.40.40	Withdrawn	<i>List of approved oil-resistant CAF compound jointing</i>				
40.10.40.41	Withdrawn	<i>List of approved acid-resistant CAF compound jointing</i>				
40.10.40.42	Withdrawn	<i>List of approved spiral-wound gaskets</i>				
40.10.50.41	Withdrawn	<i>List of approved suppliers of 1 Cr-0.25 Mo steel bolts and medium carbon steel nuts</i>				
40.10.64.10	Withdrawn	<i>Welding electrodes, rods wires and fluxes</i>				
40.48.00.30	Withdrawn	<i>Paints and paint materials (30.48.00.31, 70.48.10.10)</i>				
41.20.20.31	Withdrawn	<i>Purchasing procedure trays for columns (MA-13)</i>				
41.21.01.30	Withdrawn	<i>Purchasing procedure unfired shell and tube heat exchangers (MA-11)</i>				
41.21.06.40	Withdrawn	<i>List of approved suppliers of 12 Cr steel bolting for floating heads of heat exchangers</i>				
41.21.70.31	Withdrawn	<i>Air cooled heat exchangers - purchasing procedure</i>				
41.24.49.31	Withdrawn	<i>Shop fabrication of heater piping - purchasing procedure</i>				
41.38.01.31	Withdrawn	<i>Purchasing procedure shop fabrication of steel piping (MA-05)</i>				
42.31.31.30	Withdrawn	<i>Purchasing procedure signal light assemblies</i>				
44.24.90.31	Mar. 2001	Refractory bricks and shapes	M	C	32/2001	OGEC
44.28.00.31	Withdrawn	<i>Purchasing procedures steel structures (MA-12)</i>				
44.51.01.31	Withdrawn	<i>Purchasing procedure standard vertical tanks (MA-07)</i>				
61.10.08.11	Jul. 1999	Field inspection prior to commissioning of mechanical equipment	M	C	03/2001	OGCC
61.22.01.31	Withdrawn	<i>Rotating disc contactors - Installation, site testing and maintenance (31.22.01.31)</i>				
61.24.15.31	Withdrawn	<i>SIPM-type vertical furnaces and waste heat boilers - Field erection</i>				
61.38.10.10	Dec. 1999	Shop and field fabrication of orifice meter runs	T	F		OGEM

61.40.20.30	Jun. 1993	Welding of pipelines and related facilities(amendments/supplements to ANSI/API STD 1104)	T	C	20/2000, 41/2004	OGEI/2
61.40.20.31	Jul. 1999	Field welding of duplex and super duplex stainless steel pipelines (amendments/supplements to API 1104)	T	C		OGEI/2
62.10.08.11	Nov. 2003	Inspection and functional testing of instruments	P			OGES
62.10.09.11	Withdrawn	<i>Factory inspection and testing of instruments and instrument systems (62.10.08.11)</i>				
62.37.10.12	Withdrawn	Instrument installation procedures	M	F		OGEE
63.10.08.11	Aug. 2000	Field commissioning and maintenance of electrical installations and equipment				
64.11.10.31	Withdrawn	<i>Site preparation (34.11.00.11)</i>				
64.24.32.11	Dec. 1999	Refractory materials for sulphur recovery units (claus and scot)	M	C	39/2003	OGEC
64.24.32.30	Dec. 1997	Insulating and dense refractory concrete linings	M	C	10/2002, 66/2003	OGEC
64.51.01.31	Dec. 1995	Standard vertical tanks - Field erection and testing	T	C		OGEC
70.07.20.30	Withdrawn	<i>Magnetic particle inspection of the threaded parts of steel drill stem</i>				
70.08.10.10	Withdrawn	<i>Equipment and tools for maintenance and inspection. Part 1: - Inspection - Tools and NDT instruments</i>				
70.08.10.11	Dec. 1998	Equipment and tools for maintenance - Mechanical maintenance equipment, tools and bolt tensioning	M	C		OGCC
70.08.10.12	Withdrawn	<i>Equipment and tools for maintenance and inspection. Part 3: - Mechanical maintenance - Tools (70.08.10.11)</i>				
70.08.10.13	Dec. 1992	Equipment and tools for maintenance and inspection. Part 4: - Electrical workshop - Test equipment and tools	M	C	08/95, 17/95	OGEE
70.08.10.14	Withdrawn	Equipment and tools for maintenance and inspection. Part 5: - Instrument technical centre and workshop- Equipment and tools				
70.10.01.10	Jul. 1999	Equipment record cards	M	C		OGCC
70.10.70.11	Jul. 1999	The preservation of old and new equipment and piping standing idle	M	C		OGCC
70.10.80.11	Jan. 1998	Cleaning of equipment	M	C	42/2004	OGUF
70.10.90.11	Sep. 2002	Spare parts	M	F	67/2003	OGEM
70.48.10.10	Dec. 1995	Maintenance painting	M	F	84/2003	OGEI/1
70.51.10.11	Jul. 1998	Field inspection, maintenance and repair of vertical steel storage tanks	M	G	53/2003	OGEC
74.04.12.15	Withdrawn	<i>Testing methods for stored cat. cracker refractories</i>				

74.36.10.31	Withdrawn	<i>Testing of soft seat ball valves designed in accordance with BS 5351</i>					
74.36.10.32	Withdrawn	<i>Design and evaluation of rubber lined butterfly valves for fire protection service</i>					
80.00.10.10	Nov. 2003	Area classification (amendments/supplements to IP 15)	M				OGCH/1
80.36.00.30	May 2004	Relief valves - selection, sizing and specification	T				OGEM
80.45.10.10	Jul. 1996	Pressure relief, emergency depressuring, flare and vent systems	M	C	32/98, 68/2003		OGEM
80.46.30.11	Dec. 1999	Interlocking systems for safety/relief valves	M	C	43/2002		OGEM
80.47.10.10	Withdrawn	<i>Fire-fighting agents (80.47.10.32)</i>					
80.47.10.11	Withdrawn	<i>Fire-fighting systems (80.47.10.30)</i>					
80.47.10.12	Dec. 1997	Water-based fire protection systems for offshore facilities	M	F	13/2000		OGCH/1
80.47.10.30	Jan. 2000	Assessment of the fire safety of onshore installations	M	C	69/2003		OGCH/1
80.47.10.31	Dec. 1999	Active fire protection systems and equipment for onshore facilities	M	C			OGCH/1
80.47.10.32	Jan. 2000	Fire-fighting agents and movable fire fighting equipment for onshore applications	T	F			OGCH/1
80.47.10.33	Dec. 1999	Fire-fighting vehicles and fire stations	T	F	32/2003		OGCH/1
80.47.20.30	Withdrawn	<i>Trucks and trailers for fire-fighting</i>					
80.80.00.10	Dec. 1998	Offshore facilities life-saving appliance requirements (amendments/supplements to SOLAS)	M	F			OGCH/1
80.80.00.11	Sep. 2002	Control and mitigation of fires and explosions on offshore production installations (amendments/supplements to ISO 13702)	M	F			OGCH/1
80.80.00.12	Sep. 2002	Offshore production installations - Requirements and guidelines for emergency response (amendments/supplements to ISO 15544)	M	F			OGCH/1
80.80.00.13	Sep. 2002	Offshore production installations - Guidelines on tools and techniques for identification and assessment of hazardous events (amendments/supplements to ISO 17776)	M	F			OGCH/1
82.00.10.10	Dec. 1995	Project quality assurance	M	F	24/98, 70/2003		OGPS
82.00.10.11	Aug. 2000	Cost control of capital investment projects	M	F			OGPS

2. STANDARD SPECIFICATIONS

Spec. Number	Date of issue	Title
A-1-1	Withdrawn	<i>Process units - General</i>
A-2-1	Withdrawn	<i>Process control and instrumentation requirements</i>
A-3-1	Withdrawn	<i>Pressure relief valves (80.45.10.10, later 80.36.00.30)</i>
A-4-1	Withdrawn	<i>Fuel systems (20.05.60.10)</i>
A-5-1	Withdrawn	<i>Hot-oil systems (20.05.50.10)</i>
A-6-1	Withdrawn	<i>Waste gas and low-pressure (LP) gas disposal systems</i>
A-11-1	Withdrawn	<i>Crude distilling units</i>
A-12-1	Withdrawn	<i>High vacuum distilling units</i>
A-13-1	Withdrawn	<i>Catalytic reforming and hydrotreating/hydrodesulphurizing units</i>
A-14-1	Withdrawn	<i>Catalyst reforming units</i>
A-15-1	Withdrawn	<i>Hydrotreating and hydrodesulphurizing units</i>
A-16-1	Withdrawn	<i>Bitumen blowing units</i>
A-17-1	Withdrawn	<i>Sulphur recovery units</i>
A-18-1	Withdrawn	<i>Thermal cracking units</i>
B-1-1	Withdrawn	<i>Buildings General (34.17.00.32)</i>
B-2-1	Withdrawn	<i>Control room building (34.17.10.30)</i>
B-3-1	Withdrawn	<i>Laboratory (34.17.10.31)</i>
B-10-2	Withdrawn	<i>Specification for supply/erection of "heating, ventilating and air conditioning plants" in buildings (31.76.10.11)</i>
B-11-1	Withdrawn	<i>Heating, ventilating and air conditioning in control centres (31.76.10.10)</i>
B-12-1	Withdrawn	<i>Heating, ventilating and air conditioning in building: sub-stations and switch houses (34.76.30.31, now 31.76.10.10)</i>
B-12-2	Withdrawn	<i>Heating, ventilating and air conditioning in reinforced control building (31.76.10.10)</i>
C-1-1/2/3	Withdrawn	<i>Rotating disc contactors (31.22.01.31)</i>
C-2-1	Withdrawn	<i>Trays for columns (31.20.20.31)</i>
D-1-1	Withdrawn	<i>Compilation of design books (01.00.02.11)</i>
Dr-1-2/3	Withdrawn	<i>C-95 casing and tubing for sour (H₂S) service (quench and temper process)</i>
E-1-1	Withdrawn	<i>Unfired heat transfer equipment (31.21.01.30, 31.21.70.31)</i>
E-1-3	Withdrawn	<i>Minimum requirements for the shop checking, inspection and testing of unfired heat transfer equipment (31.21.01.30, 31.21.70.31)</i>
F-1-1	Withdrawn	<i>Furnaces and related equipment (31.24.00.30)</i>
E-2-3	Withdrawn	<i>Minimum requirements for the shop checking, inspection and testing of coil-wound heat exchangers (31.21.01.30)</i>
G-1-1	Withdrawn	<i>Fabrication report for pressure vessels (31.2210.35)</i>
G-2-1	Withdrawn	<i>Model construction (30.10.05.11)</i>
G-3-1	Withdrawn	<i>Asset breakdown (01.00.09.10)</i>
G-5-1	Withdrawn	<i>Job procedures manual</i>
G-6-2	Withdrawn	<i>Specification for the preparation and micro-filming of technical drawings (02.00.00.10)</i>
G-7-1	Withdrawn	<i>Descriptive index for a Shell Project Specification</i>
G-8-1	Withdrawn	<i>Fire-proofing of steel structures (34.19.20.11)</i>
H-1-1	Withdrawn	<i>Piling</i>
H-2-1	Withdrawn	<i>Reinforced concrete foundations and structures (34.19.20.31)</i>
H-3-1	Withdrawn	<i>Reinforced concrete stacks (34.24.27.31)</i>

In-1-1	Withdrawn	<i>Instrumentation (32.31.00.10, 32.31.00.32)</i>
In-2-1	Withdrawn	<i>The instrumentation of depressurising systems (32.45.10.10)</i>
In-3-1	Withdrawn	<i>Control valves (32.36.01.17)</i>
In-5-1	Withdrawn	<i>Instrumentation for package units (32.30.20.11)</i>
K-1-1	Withdrawn	<i>Compressor selection (31.29.40.10)</i>
K-3-2/3	Withdrawn	<i>Rotary-type positive displacement compressors mechanical design, construction and testing (31.29.40.32)</i>
K-4-2/3	Withdrawn	<i>Reciprocating compressors - mechanical design, construction and testing (31.29.40.31)</i>
K-5-3	Withdrawn	<i>Checking, testing and inspection of fans (31.29.47.30)</i>
K-6-2	Withdrawn	<i>Lube and seal oil systems for special purpose applications (31.29.60.32)</i>
L-1-1	Withdrawn	<i>Piping (31.38.01.11)</i>
L-2-2/3	Withdrawn	<i>Line pipe for use in oil and gas operations under non-sour conditions (31.40.20.30)</i>
L-3-2/3	Withdrawn	<i>Line pipe for use in oil and gas operations under sour conditions (31.40.20.31)</i>
L-4-1/2/3	Withdrawn	<i>External polyethylene coating for line pipe (31.40.30.31)</i>
L-5-1/2/3	Withdrawn	<i>External fusion-bonded epoxy powder coating for line pipe (31.40.30.32)</i>
M-1-1	Withdrawn	<i>Spare parts (70.10.90.11)</i>
N-1-1	Withdrawn	<i>Electric power and lighting installations (33.64.10.10)</i>
N-2-1	Withdrawn	<i>Telecommunication (32.71.00.10)</i>
N-3-3	Withdrawn	<i>Inspection and testing of LV switchgear and controlgear (33.67.01.31)</i>
O-1-1	Withdrawn	<i>Jointing material (31.38.01.11)</i>
O-2-1	Withdrawn	<i>Thermal insulation for hot services (30.46.00.31)</i>
O-3-1	Withdrawn	<i>Thermal insulation for cold service and dual temperature</i>
P-1-1	Withdrawn	<i>Pumps selection (31.29.02.11)</i>
P-1-2/3	Withdrawn	<i>Centrifugal pumps - mechanical design and construction, shop inspection and tests (31.29.02.30)</i>
P-4-3	Withdrawn	<i>Checking, testing and inspection of rotary pumps (screw pumps)</i>
P-5-3	Withdrawn	<i>Checking, testing and inspection of positive displacement pumps (reciprocating type) (31.29.12.30)</i>
Q-1-1	Withdrawn	<i>Site preparation (34.11.00.11)</i>
Q-2-1	Withdrawn	<i>Drainage and sewerage system (34.14.20.31)</i>
Q-3-1	Withdrawn	<i>Roads, paving and fencing (34.13.20.31)</i>
R-1-1	Withdrawn	<i>Reactors</i>
S-2-3	Withdrawn	<i>Min requirements for shop checking inspection and testing of loading arms</i>
S-3-3	Withdrawn	<i>Minimum requirements for the shop checking, inspection and testing of closed thimble circular nylon mooring ropes</i>
S-4-3	Withdrawn	<i>Minimum requirements for the shop checking, inspection and testing of a SBM (single buoy mooring)</i>
ST-1-1	Withdrawn	<i>Steam turbine selection (31.29.60.10)</i>
ST-2-2/3	Withdrawn	<i>General purpose steam turbines (mechanical design and construction, shop inspection and tests) (31.29.60.30)</i>
T-1-1	Withdrawn	<i>Storage tanks (64.51.01.31, 70.51.10.11)</i>
T-2-1	Withdrawn	<i>LPG storage facilities (30.06.10.12)</i>
U-3-1	Withdrawn	<i>Painting and coating of new construction projects (30.48.00.31)</i>
U-4-1	Withdrawn	<i>Cathodic protection (30.10.73.10)</i>
V-1-1/2/3	Withdrawn	<i>Pressure vessels (31.22.10.32, 31.22.20.31)</i>

V-2-3	Withdrawn	<i>Minimum requirements for the shop checking, inspection and testing of unfired pressure vessels other than shell and tube type heat exchange equipment (31.22.10.32, 31.22.20.31)</i>
V-3-2	Withdrawn	<i>LPG storage vessels (31.22.10.36, now 30.06.10.12 and 31.22.10.32)</i>
V-4-1	Withdrawn	<i>Gas/liquid separators (31.22.05.11)</i>
V-5-1	Withdrawn	<i>Hydrogen and nitrogen storage bottles for platformer units (31.22.90.30)</i>
W-1-1	Withdrawn	<i>Field inspection</i>
W-2-3	Withdrawn	<i>Minimum requirements for the shop checking, inspection and testing of cat. cracker cyclones and accessories</i>
W-3	Withdrawn	<i>Minimum requirements for the shop checking, inspection and testing of rotary vacuum filters</i>
W-4-1/2/3	Withdrawn	<i>Welding and inspection requirements for equipment not covered by recognized standards and/or codes</i>
W-5-1/2/3	Withdrawn	<i>Repair by welding of aluminium and aluminium-alloy castings</i>
W-6-1/2/3	Withdrawn	<i>Equipment made of 2.25 Cr - 1 Mo steel in quenched and tempered condition (30.10.02.32-Gen.)</i>
W-7-1/2/3	Withdrawn	<i>Aluminium-bronze sand castings (amendments/supplements to ASTM B 148)</i>
Y-1-1	Withdrawn	<i>Steel structures (34.00.01.30)</i>
Y-2-1	Withdrawn	<i>Steel stacks (34.24.26.31)</i>
Z-1-1	Withdrawn	<i>Fire-fighting systems (80.47.10.30, 80.47.10.31)</i>
Z-2-1	Withdrawn	<i>Noise specification for plant and equipment (31.10.00.31)</i>