

GENERAL SPECIFICATION

STRUCTURAL

GS EP STR 107

Offshore Structures decommissioning

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1. Scope

This general specification defines Company requirements related to planning, engineering, methodologies and operations for decommissioning of offshore structures. It is applicable during all the phases related to decommissioning (i.e. pre-project, basic engineering & detailed engineering).

It applies to structural and marine aspects associated with:

- Fixed structures such as steel piled jackets and topsides
- Gravity Based structures (steel or concrete)
- Drilling or installation templates
- Bridges, articulated columns
- Modules resting on floating structures
- Pier structures such as loading platforms, trestles, mooring or breasting dolphins
- Subsea structures, either piled or founded on suction anchors
- Piles and conductor pipes
- Risers and appurtenances.

The following items are not covered in this document:

- Hulls and moorings lines/tethers of floating installations
- Jack-up platforms
- Sealines, umbilical and flowlines
- Casings inside conductor pipes
- Onshore disposal operations.

The present specification shall be read together with the Particular Project Specifications (PPS) applicable to the project, which will in particular state which regional, national and international regulations apply. Due attention shall be paid to the regulations in force at the time of project (international & regional conventions, national regulations), some of which are listed in § 2: Reference documents.

Design for lifting, refloating, upending, transportation and seafastening, offshore and onshore backloading shall fulfil **GS EP STR 401** criteria unless otherwise specified in the present specification or Particular Project Specifications.

Onshore disposal operations themselves are not in the scope of the present General Specification. It shall be addressed in a Particular Project Specification.

Unless otherwise approved by Company, marine operations and reverse loadouts, where applicable, shall fulfil **GS EP STR 401** criteria.

2. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of this document.

Reference	Title
API RP 2A-LRFD	Recommended Practice for Planning and Constructing Fixed Offshore Platforms Load and Resistance Factor Design
API RP 2A-WSD	Recommended Practice for Planning and Constructing Fixed Offshore platforms, Working Stress Design
BV NI 183	Towage at sea of vessels or floating units
DNV (1996)	Rules for planning and execution of marine Operations
DNV-RP-H102	Recommended practice - Marine operations during removal of offshore installations
DNV-OS-H101	Marine Operations, General
ISO 19900	Petroleum and natural gas industries - General requirements for offshore structures
ISO 19901 (Parts 1; 2; 4; 5; 6)	Petroleum and natural gas industries - Specific requirements for offshore structures - (Parts 1; 2; 4; 5; 6)
NDI Ltd - Report 0030/NDI	General Guidelines for Marine Transportations
IMO A749 (18)	Code on intact stability

Regulations

International conventions

- 1982 United Nations Convention on Law Of the Sea (UNCLOS)
- 1958 Geneva Convention on the Continental Shelf
- 1972 London Dumping Convention (LC72) and 1996 Protocol
- 1989 International Maritime Organisation (IMO) guidelines
- 1989 Basel Convention

Regional Conventions

The list below is not exhaustive. Applicable regional conventions shall be indicated in the PPS:

- Bucharest 1992 (Black sea)
- Cartagena 1983 (Caribbean)
- Nairobi 1985 (Eastern Africa)

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- Kuwait 1978 (Red sea and Gulf of Aden)
- Barcelona 1976 (Mediterranean sea)
- Nouméa 1986 (South Pacific)
- Lima 1981 (South Pacific)
- Abidjan 1981 (West and central Africa)
- Helsinki 1974 & 1992 (Baltic Sea)
- OSPAR 1992 & Decision 98/3 (North East Atlantic)

National regulations

The list here below is not exhaustive. Applicable national conventions shall be indicated in the PPS.

UK:

- Prevention of Oil pollution act 1972
- Control of pollution Act 1974
- Food & Environment Protection Act 1985
- Environmental Protection Act 1990
- Radioactive Substance Act 1993
- Petroleum Act 1998

Norway:

- The Pollution Act 1984
- Petroleum Act 1985
- Safety Regulations 1985
- The Law on Cost Sharing of Abandonment 1985
- Norwegian Petroleum Directorate Guidelines 1990
- Pollution Regulations 1994

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published in the applicable yearly collection.

Reference	Title
GS EP COR 350	External protection of offshore and coastal structures and equipment by painting
GS EP GEO 501	Meteorological and Oceanographic survey
GS EP GEO 504	Comprehensive evaluation of metocean conditions
GS EP GEO 505	Monitoring of Metocean Conditions for Offshore Units

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Reference	Title
GS EP GEO 702	Requirements for design and installation of skirted foundations and suction anchors
GS EP LSO 410	Manned underwater operations
GS EP SPS 001	Subsea Production Systems General Design Requirements
GS EP STR 001	Weight monitoring and weighing offshore units
GS EP STR 100	Offshore steel structures - General
GS EP STR 101	Design of offshore jacket and subsea structures
GS EP STR 102	Design of offshore topside structure
GS EP STR 105	Boat landings and bumpers
GS EP STR 106	Assessment of existing fixed offshore steel platforms
GS EP STR 201	Materials for offshore steel structures
GS EP STR 202	Cast materials for steel structures
GS EP STR 203	Forged materials for steel structures
GS EP STR 301	Fabrication of offshore steel structures
GS EP STR 304	Fabrication of Welded Plate Girders (W.P.G.) and Box Girders (B.G.)
GS EP STR 401	Loadout, seafastening, transportation and installation of offshore structures
GS EP STR 402	Anchorage for a support vessel on an offshore site
GS EP STR 404	Marine aspects for load-out, transportation and installation of offshore structures

As a general approach, Company General Specifications in force at the time of contract shall be applicable unless otherwise stated in Particular Project Specifications.

3. Involved parties and responsibilities

A specific document shall be issued at basic engineering stage to define respective roles of the Marine Warranty Surveyor, the Third Party Authority and/or Certification Authority and their respective responsibilities and scope of work during detailed engineering operations.

In particular, the following shall be defined in the above document:

- The Authority responsible for checking/certifying the design of structures, including design and fabrication of grillage, transportation barges reinforcements and sea-fastening.
- The Authority responsible for checking/certifying the decommissioning activities