



Exploration & Production

GENERAL SPECIFICATION

STRUCTURAL

GS EP STR 001

Weight monitoring and weighing offshore units

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1. Scope

It is a primary responsibility of the CONTRACTOR in any contract to manage the WORK in such a way that the overall objectives of a project or an operation are not put at risk by growth or movement of weight beyond a set of bounds which form the basis for the design, and/or selection of handling equipment (e.g. for lift). This process of weight management therefore involves:

- a) The setting and agreement of initial estimates, including suitable margins (contingencies and reserves) to be used in design
- b) Monitoring of the weights of individual components, sub-assemblies and assemblies to ensure that the weights remain within the limits set for the design
- c) Tracking of trends in weight change and evaluation of potential excess of the limiting values
- d) Management of the design and procurement process to ensure that limiting design values are not exceeded, and to take necessary remedial measures if that becomes unavoidable
- e) To advise COMPANY of the consequence in respect to weight of any contractual change in advance of agreement of such change.

The objective is to know the weight and centre of gravity of assemblies and subassemblies at any time during a project with a quantified contingency margin and to keep the weight and the centre of gravity under control throughout the whole duration of the project.

In particular, the weight monitoring shall enable CONTRACTOR to continuously follow the trends in weights and position of centres of gravity compared to the specified requirements. It is CONTRACTOR's responsibility to mobilise the required resources and means in order to fulfil these objectives.

This general specification defines:

- The minimum "weight monitoring" requirements to be observed when estimating, recording, reporting and verifying the weight and centre of gravity for all assemblies and/or subassemblies in petroleum structures
- Weight monitoring in every phase from engineering to the end of construction
- The minimum "Weighing" requirements to be observed for measuring weights and centres of gravity.

Unless otherwise indicated in the job specification, this general specification does not cover concrete structures. Special arrangements for each project are covered in job (or particular) specifications which supplement or amend this general specification.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated in the CONTRACT, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT. References to superseded standards that may occur on technical documents will not over-write this clause.

Where national regulations exist, their provisions and those of the standards and codes to which they refer shall apply, supplementing or amending the provisions of this document.

If there are no national regulations covering all or part of the subject of this document, the reference documents shall be strictly applied, as supplemented by the provisions of this document.

Only the main reference documents are mentioned; the CONTRACTOR shall be responsible for complying with all secondary reference documents dealing with the subject of this document.

Standards

Reference	Title
ISO 19901-5	Petroleum and natural gas industries — Specific requirements for offshore structures — Part 5: Weight control during engineering and construction
ISO 19900	Petroleum and natural gas industries — General requirements for offshore structures
API RP-2A WSD	Recommended Practice for Planning and Construction of Fixed Offshore Platforms - Working Stress Design
API RP-2A LRFD ISO 19902	Recommended Practice for Planning and Constructing of Fixed Offshore Platforms - Load and Resistance Factor Design
ISO 1000	Specification for SI Units and Recommendations for the Use of their Multiples and of Certain other Units

The COMPANY recognizes these documents as a source of sound recommendations on good practice. However, in some cases the requirements of these International Standards do not comply with the requirements of the COMPANY's General Specifications. Furthermore, there exists within these International Standards the requirement for the owner or operator to define certain parameters which may override suggested default values.

In general terms, the requirements of formally issued ISO 19901-X when available shall be applicable in context to the design of new structures for COMPANY and to the insurance that operations are performed within defined and recognized safety/confidence levels where these requirements are additional to or are more onerous than the requirements stated in the COMPANY's General Specifications and Project Particular Specifications. In this context, the default values of parameters are recommended by these International Standards shall apply, unless more onerous values are stipulated within the Contract documents.

Any other proposal based on the content of these International Standards shall be subject to COMPANY approval.

Professional Documents

Reference	Title
Not applicable	

Regulations

Reference	Title
Not applicable	

Codes

Reference	Title
Not applicable	

Other documents

Reference	Title
Not applicable	

Total General Specifications

The provisions of this document shall be applied in the light of the supplementary documents supplied by the OWNER, including:

- Country specificity appendices
- Job specification
- Data sheets
- Articles and conditions; list of tasks
- Quality assurance provisions.

Reference	Title
Not applicable	

3. Terminology

The following terms shall apply to the weights and centres of gravity.

3.1 Weight control

Organization by which weights can at any time be compared with the prescribed weights so that any deviation can be corrected to achieve the prescribed weights and the prescribed tolerances.

3.2 Weight monitoring

Obtaining, verifying, recording and processing information on the weight of each item of an assembly so that the total weight and position of the centre of gravity of that assembly is known at all times.