

GENERAL SPECIFICATION

SUBSEA SYSTEMS

GS EP SPS 012

Documentation requirements for subsea stations

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1. Scope

This specification defines the minimum requirements for the supply of documentation and database to the Project.

This specification covers all project phases: engineering, construction, installation, operation and maintenance.

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
Not applicable	

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 EXP 203	Maintenance and inspection documentation preparation during project phase
GS EP PJC 701	Documents Identification & Numbering at Project Execution and Field Operations Phases
GS EP PJC 702	Requirements for electronic Documents at Project Execution and Field Operations Phases
GS EP PJC 703	Contractor final documentation requirements
GS EP SPS 011	Mechanical Completion of Subsea Package

3. Introduction

3.1 Abbreviations

BOP	Blow Out Preventor
CAD	Computer Assisted Design
DFI	Design Fabrication Installation
EFAT	Extended Factory Acceptance Test

FAT	Factory Acceptance Test
FMECA	Failure Mode Evaluation and Critical Analysis
HPU	Hydraulic Power Unit
IMR	Inspection Maintenance Repair
IT	Integration Test
MC	Mechanical Completion
MDR	Master Document Register
NAS	National Aerospace Standard
PFD	Process Flow Diagram
PSD	Process Shutdown System
RAM	Reliability Availability and Maintainability
ROV	Remotely Operated Vehicle
SCU	Subsea Control Unit
SCM	Subsea Control Module
SDL	SUPPLIER Document List
SDU	Subsea Distribution Unit
SPCU	Subsea & Power Communication Unit
SPS	Subsea Production System
VDU	Video Display Unit
XT	Christmas Tree
WBS	Work Breakdown Structure

3.2 Responsibilities

Deviations from any of the requirements defined herein shall be treated as non-conformances in accordance with Company procedures.

It is the responsibility of anyone who applies this specification to ensure compliance with all relevant statutory requirements.

4. Requirements

4.1 General

All documents shall be available on electronic format.

All documents and drawings shall have Company document number, system code, area code, and revision code according to **GS EP PJC 701** and **GS EP PJC 702**.

Company will reserve the right to inspect and/or review completed or partly completed technical documentation and drawings whether submitted or under preparation.

Updated documentation that reflects the current design of all items shall always be available to Company, and shall be issued at least every three months or when significant changes are made.

4.2 Master Document Register

All documentation required during all phases of a field development (project, installation, operation and maintenance) shall be identified in a Master Document Register. The MDR shall be structured in accordance with the Work Breakdown Structure (WBS) to enable Company to find all documentation related to one component in one section of the MDR.

Contractor shall, during the project phase, submit on request any other document not originally identified in the MDR, in order for Company to plan and perform tasks during the project phase. Such tasks can be to verify, test, install, operate and maintain equipment and/or systems. Documentation prepared to verify and document the quality of the deliveries shall be submitted on request (such as welding procedures, calculations, material certificates, etc.).

The document list shall include:

- Initially planned issue
- Revised issue date
- Final issue date.

The document list status shall be issued on a weekly basis highlighting:

- Documents issued during the week
- Documents to be issued the following week
- Documents delayed with revised issue date.

4.3 Document delivery schedule

The MDR shall identify the period in time when documents shall be prepared, submitted and completed for their intended purpose. The documentation shall be developed progressively during execution of the Project work as required to complete engineering, fabrication, test and handover activities.

The MDR shall be developed and agreed with Company not later than four weeks after commencement of the Project work. Bidding Contractor shall provide a draft during the bid phase.

Administrative documents such as the Quality Plan, Audit Plan, QS-plan, Safety Health and Environmental Program, Contract Schedule Baseline, Contract Document Schedule, Procurement Milestone Plan, Mobilisation Schedule and Progress Monitoring System shall be issued during the first weeks of the Project.

The dispatch dossier shall be complete no later than two weeks before delivery of the applicable equipment.

Documentation necessary for planning and/or execution of offshore installation work shall be completed 8 weeks prior to start of the first well completion or offshore installation.

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All documents required for testing (test procedures, functional descriptions, software listings, etc.) shall be issued for construction at least two weeks before the actual testing.

4.4 Document requirements

4.4.1 Electronic documents requirements

All electronic documents, drawings and diagrams will be created following **GS EP PJC 701** and **GS EP PJC 702** requirements.

4.4.2 Descriptions

4.4.2.1 System description

System descriptions shall provide a description of design, function and limits of the main equipment within a system, to give an understanding of the relevant system. It shall also describe how the system or main equipment interfaces with other systems or main equipment of these.

4.4.2.2 Technical description

Technical descriptions shall be provided for main equipment or assembled equipment which is defined by the system description.

Technical descriptions shall contain main data such as pressure rating, overall dimensions, etc. Any functional or operational restrictions shall be specified (e.g. temperature limitation or limitation on differential pressure over in-line valves).

The technical description shall also include specification of volumes in all lines potentially exposed to well or injection fluids. This includes the total volume and all volumes between in-line valves.

4.4.2.3 Data sheet

Data sheets shall be provided for all equipment and relevant components on this equipment.

The data sheets shall be linked to the relevant tag/item number they apply to.

4.4.3 Design specifications

4.4.3.1 System design specification

System design specifications shall provide a complete system overview and system design specification for the total system. The specification shall include (but not be limited to) functional requirements, design basis for operational range, limits of operation. Special attention is drawn to the adequacy of the foundation systems with the actual soil conditions.

4.4.3.2 Equipment design specification

Equipment design specifications shall provide the detailed design specifications for the equipment in question. The specification shall include (but not be limited to) detailed functional requirements, operational requirements and range, specification of interface to other systems.