

GENERAL SPECIFICATION

Field Operations

GS EP EXP 153

Operating manual and Handbook

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1. Scope

This General Specification defines the structure, content and format of the operating manual ("Book 1") and Handbook. It is intended for the Contractor who has been asked by the Company to produce the operating manual or for Company teams if the operating manual is to be produced by Operations teams.

1.1 Purpose

The purpose of the Operating Manual is to provide a detailed understanding of how the production installations operate, and to provide a reference guide for operations.

The purpose of the Handbook is to provide a brief, schematic summary of how production installations operate, in a format that is easy to use on site.

The Operating Manual and Handbook are used as media for training the production teams before first start-up, in the context of participation in Commissioning operations, and also for induction training for new personnel arriving on site. They are easily readable, precise and accurate and include illustrations and diagrams. Their format allows text and illustrations modifications in order to facilitate their update in operations phase.

1.2 Field of application

This General Specification applies to all existing projects (greenfield and brownfield) and installations impacted by significant modifications, within the perimeter of assets operated by the Company.

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 addendums, is the latest revision published at the effective date of this document.

Reference	Title
Not applicable	

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Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and addendums, is the latest revision published.

Reference	Title
GS EP EXP 103	Pre-Commissioning and Commissioning engineering and preparation
GS EP EXP 501	Equipment and piping numbering
GS EP INS 134	Design and supply of integrated control and safety system
GS EP PJC 701	Documents identification & numbering at project execution and field operations phases
GS EP PJC 702	Documents requirements at project execution and field operations phases

3. Glossary

- **Company** means Total or a Total affiliate in charge of operating the production installations on one (or several) particular site(s).
- **Contractor** means the service Contractor in charge of producing the Operating Manual.
- **Vendor** means supplier of materials/equipment used in the construction of installations.
- **Installations** mean the existing or new installations for which the Operating Manual is produced.
- **MDR**: Master Document Register.
- **Site Operations** means the Company entity in charge of operating the installations.
- **Work** means the work to be performed by Contractor for producing the Operating Manual.
- **PRODOM**: PProject and Operations DDocument Management solution.
- **Project** means the Company entity in charge of developing new installations on behalf of Company.
- **Site** means the location of the installations.

4. Structure, content and format of the operating manual

4.1 Structure of the operating manual

The operating manual is divided into three sections:

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1. General introduction.
2. Description of production installations operation.
3. Recommendations for the Field Operations operator.

{Rule 1:

The detailed structure of the operating manual shall be submitted to the Company Field Operations representative before it is drafted.}

The operating manual is indexed in the project's Master Document Register (MDR). It is divided into sections, indexed as electronic folders in the PRODOM discipline application.

4.1.1 Structure of the section "Description of installations operation"

{Rule 2:

In the operating manual, the breakdown of the section "Description of production installations operation" shall be consistent with the geographical and functional breakdown of the installations.}

4.1.1.1 Breakdown into parts according to configuration of the installations

The "Description of production installations operation" section can be broken down into several parts. These parts are consistent with a geographical and/or functional breakdown of the installations, such as:

- Onshore / offshore installations.
- Platforms or groups of platforms.
- Different sites.
- Topsides, Hull and Subsea for a FPSO.

When installations are broken down into several parts for the purpose of the operating manual, each part is to contain a specific introduction.

4.1.1.2 Breakdown into chapters

Each part is broken down into several chapters corresponding to the functional breakdown of the installations into systems and subsystems.

GS EP EXP 501 gives a typical breakdown of functions into systems and subsystems, to be used as a reference. **GS EP EXP 103** presents a detailed example.

Large or complex systems can be broken down into more detail than for subsystems (for example: the hydrocarbon extraction system can be broken down into: Wells, Main / Test Separation, Metering and Export). Similarly, for simpler systems several systems can be grouped in the same chapter. Depending on the size and complexity of the various systems composing the installations, chapters may correspond to:

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- Several systems.
- A single system.
- A subsystem.
- Specific equipment.

4.1.2 Structure of the section "Recommendations for the Field Operations operator"

The section "Recommendations for the Field Operations operator" is organized into chapters corresponding to specialized studies:

- Laboratory studies and production chemistry.
- Allocation and metering study.
- Flow Assurance studies.
- Sand control studies (when applicable).

4.1.3 Table of contents of the operating manual

In addition to the conventional table of contents listing the sections / parts / chapters in the operating manual, the list of illustrations specifically created for the operating manual is given at the beginning of the operating manual.

4.2 Contents of the operating manual

The contents of the sections / parts / chapters in the operating manual are described below:

4.2.1 General introduction

This section is a summary of key information about the installations. It specifies the following:

- Geographical location.
- Description of the interfaces, if any, with other installations and/or other fields outside the Operating Manual battery limits.
- Development history.
- Reservoirs.
- Brief description of the installations.
- Operating philosophy, main "Safety Concept" topics and derogations granted to the project.

4.2.2 Description of installations operation

{Rule 3:

The section "Description of installations operation" in the operating manual shall have at least the following level of detail:

- Detailed explanation of the process principles.
- Detailed description of fluid circulation, for the process / utilities chapters and all the