



Exploration & Production

## GENERAL SPECIFICATION

### Telecommunications

#### GS EP TEL 183

**Design and installation of POB,  
E-Mustering and E-Tracking**

|      |         |                                           |
|------|---------|-------------------------------------------|
|      |         |                                           |
|      |         |                                           |
|      |         |                                           |
| 02   | 01/2011 | Extension to POB                          |
| 01   | 10/2008 | Compliance with COMPANY IT security rules |
| 00   | 09/2007 | First issue                               |
| Rev. | Date    | Notes                                     |

Owner: EP/FEI/SI

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## 1. Scope

This document defines the requirements for design of the Electronic POB System on onshore or offshore oil & gas installations.

The verbal forms used to indicate levels of requirement are specified in [ISO/IEC Directives, Part 2](#) and [Characteristics of good requirements](#), INCOSE Symposium 1996.

## 2. Reference documents

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.

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT.

### Standards

| Reference                                  | Title                                                               |
|--------------------------------------------|---------------------------------------------------------------------|
| <a href="#">ISO/IEC Directives, Part 2</a> | Rules for the structure and drafting of International Standards     |
| <a href="#">IEEE 802.11i</a>               | Wireless LAN Medium Access Control                                  |
| <a href="#">ISO/IEC 14443</a>              | Identification cards. ISO standards for identification cards        |
| <a href="#">IEC 60331</a>                  | Tests for electric cables under fire conditions – Circuit integrity |

### Professional Documents

| Reference      | Title |
|----------------|-------|
| Not applicable |       |

### Regulations

| Reference                              | Title                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------------|
| <a href="#">ATEX directive 94/9/CE</a> | Equipment and protective systems intended for use in potentially explosive atmospheres |



## Codes

| Reference      | Title |
|----------------|-------|
| Not applicable |       |

## Other documents

| Reference      | Title |
|----------------|-------|
| Not applicable |       |

## Total General Specifications

| Reference     | Title                                               |
|---------------|-----------------------------------------------------|
| GS EP TEL 002 | Telecom Shutdown Philosophy                         |
| GS EP TEL 170 | Design and installation of communication network    |
| GS EP TEL 180 | Engineering and installation of network pre-cabling |
| GS EP TEL 410 | Installation rules                                  |
| GS EP TEL 411 | Access Control System                               |
| GS EP TEL 700 | Telecommunications Engineering services             |
| GS EP TEL 710 | Telecom equipment numbering                         |
| GS EP ELE 151 | DC uninterruptible power systems (UPS)              |

## 3. System description

### 3.1 Definitions

**SUB-LOCATION:** a site can be divided in Sub-location with constraints or not in term of maximum simultaneous personnel at a time.

**Radio-Frequency Identification (RFID)** is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags.

**RFID TAG:** Electronic device using RFID technology. This tag stores data descriptors. It can be installed in a smart card, chip card, proximity card ( generic name for contactless integrated circuit devices), or specific components on a watch strap for example.

**Readers:** Electronic component device that reads RFID TAG

**MPOBS:** Main POB system of the subsidiary. Refers to all persons present at a given time on a subsidiary (HQ offices, families, production site ...). This system can store specific data for a person (training, date of arrival on site, job position, ...).

**POB:** System located on site in order to manage personnel on board

**POB-M:** System located on site in order to manage efficient mustering process



**POB-T:** System located on site in order to manage personnel position tracking.

### 3.2 E-Mustering & E-Tracking system principles

As POB system, it shall provide tracking of personnel on site, in sub-location during normal operations and on muster points in case of General Alarm.

POB, including E-mustering & E-Tracking may work as standalone systems.

Depending on the organization of the site, several and independent areas with dedicated muster points should be managed in case of local alarm. (LNG, on shore plants, multi-platforms off shore site,...)

The aim of this system is to:

- monitor the control in real time, the number and identification of persons on site, including the sub-location information,
- assist accommodation management of the site (rooms, beds and capacities)
- assist management for Emergency role allocations,
- manage and allocate escape vehicles with their capacity,
- inform personnel on site if they are authorized or not to enter in a sub-location
- supply real time information on muster points, crisis rooms and control room if relevant.

The system shall include:

- RFID tag readers (with LEDs and sounders)
- RFID Tags with equipment to create the RFID Tags
- Cabling
- Redundant central units cabinets, including data network equipment, data systems,...
- Wireless system and PCs
- Printers

All software shall be as a minimum supplied in English and French languages.