

GENERAL SPECIFICATION

TELECOMMUNICATIONS

GS EP TEL 181

Access Control Systems

00	12/2019	First issue (renaming GS EP INS 309 due to change of Ownership)
Rev.	Date	Purpose of the revision

Owning entity: SG/ISB	Managing entity: SG/ISB/SURF
Other Approving entity(ies):	

General Specification		GS EP TEL 181
Access Control Systems		
Rev.: 00	Effective date: 12/2019	Page: 2 of 20

Contents

1. Scope	4
2. Reference documents	4
3. Terminology and Definitions	5
3.1 Abbreviations	5
4. System Functional Description	6
4.1 General	6
4.2 Zoning/Alert Level	6
4.3 Reporting	7
4.4 Integration with the POB-M/T system	8
4.5 Interfaces	8
5. Technical Specification	9
5.1 General Requirements	9
5.2 TAG (Badges)	11
5.3 Readers	11
5.4 Readers Interface	11
5.5 Remote Controller	12
5.6 Central Unit	12
5.7 Operator Work Stations	14
5.8 Vehicle Barriers & Gates	17
5.9 Turnstiles	17
5.10 Doors	18
5.11 Visitor Intercom	18
5.12 Mobile Readers	18
5.13 Cybersecurity	18
6. Equipment	18
6.1 Central Equipment	18
6.2 Remote Equipment	19
6.3 Field Equipment	19

General Specification		GS EP TEL 181
Access Control Systems		
Rev.: 00	Effective date: 12/2019	Page: 3 of 20

7. Engineering, Scope of Supply and Test.....	19
7.1 Engineering Documents.....	19
7.2 Scope of Supply.....	19
7.3 Tests.....	19

General Specification		GS EP TEL 181
Access Control Systems		
Rev.: 00	Effective date: 12/2019	Page: 4 of 20

1. Scope

This document defines the requirements for the Access Control Systems on onshore or offshore Company operational Sites.

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
Directive 2014/34/EU	Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres
ISO/IEC 14443	Identification cards - Contactless integrated circuit cards

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 INS 101	Instrumentation Design
GS EP INS 102	Instrumentation Identification
GS EP INS 106	Instrument Installation
GS EP INS 109	Instrument Cabinets
GS EP INS 110	Instrumentation for package units
GS EP INS 115	Instrument Earthing
GS EP INS 116	Instrument Cables
GS EP INS 135	Cybersecurity Requirements for Industrial Information Systems (SII)
GS EP TEL 182	POB, E-Mustering and E-Tracking

General Specification		GS EP TEL 181
Access Control Systems		
Rev.: 00	Effective date: 12/2019	Page: 5 of 20

3. Terminology and Definitions

There are five types of statements in this specification, the “shall”, “should”, “may”, “can” and “must” statements. They are to be understood as follows:

Shall	Is to be understood as mandatory. Deviating from “shall” statement required derogation approved by Company.
Should	Is to be understood as strongly recommended to comply with the requirements of the specification. Alternatives shall provide a similar level of protection and this shall be documented.
May	Is to be understood as permission.
Can	Is to be understood as a physical possibility.
Must	Expresses a regulatory obligation.
Company	TOTAL E&P or any TOTAL E&P subsidiary.
Contractor	Any Company TOTAL E&P has signed a Contract with for the Engineering, Procurement, Construction, and Installation of a part of a project.
Site(s)	The functional zones comprising the facilities to be developed as part of the Project onshore or offshore.
Location(s)	The functional areas or rooms within Site(s) that need to be defined as part of the ACS operational requirement e.g. Technical room, specific area...
POB-M/T	POB, E-mustering and E-Tracking System.

3.1 Abbreviations

ACS	Access Control System
CCTV	Closed-circuit television
FGS	Fire and Gas System
HITAG	The Hitag protocols are standards developed by Philips Semiconductor
ICSS	Integrated Control and Safety Systems
IDS	Intrusion detection system
LED	Light-emitting diode
MIFARE	Mifare is a proven, reliable and robust technology for contactless smart cards. Mifare complies with ISO/IEC 14443
POB	Personnel On Board. Refers to all persons those present at a given time on a site, or by extension on a subsidiary
RAID 5	Redundant Array of Independent Disks
RFID	Radio Frequency Identity
SII	French acronym stands for Industrial Information System
SIE	French acronym stands for Enterprise Information System

General Specification		GS EP TEL 181
Access Control Systems		
Rev.: 00	Effective date: 12/2019	Page: 6 of 20

SRA	Security Risk Exposure
SVA	Security Vulnerability Assessment
TAG	Badge
UPS	Uninterrupted Power Supply

4. System Functional Description

4.1 General

The control and monitoring of movement onto and around the sites (onshore and offshore) is essential for efficient security. The Access Control System shall be provided to control the authorized access within Sites and Locations of the Company's onshore and offshore facilities, and shall meet the operational requirement of the Site.

The Access Control System (ACS) comprises the hardware and software needed to electronically authenticate a request by personnel to access a facility and to advise security personnel of any invalid attempts. ACS software shall provide the following functionalities:

- Control and limit the access to the Site and Locations to authorized personnel
- Control and limit the access to vehicles entering or leaving the site
- Provide management of zoning and alert level
- Configure the access rights
- Provide specific management of visitors and vehicles entering the site
- Provide reporting
- Provide information on number of person present on site.

The access control system comprises the following elements:

- Tags
- Readers
- Cabling
- Door lockers/turnstiles/gates...
- Central and remote units
- Workstations.

4.2 Zoning/Alert Level

Specific area zoning has to be identified depending on sensitivity (SVA) and security exposure (SRA). This zoning shall be submitted and validated by Company.

The ACS shall control and manage the movement of all categories of personnel (staff and visitors) and vehicles into and out of the site. In case of security alert level step-up, the ACS design and software shall provide the capability to security staff to adapt the zoning (e.g. by restricting the categories of personnel who have access to a given area).