



Exploration & Production

GENERAL SPECIFICATION

Field Operations

GS EP EXP 217

Requirements to Vendors Suppliers and EPC'S for spare parts
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1. Scope

The scope of this specification is to provide Vendor or Supplier with the required method to identify, describe and advise all the Spare Parts possibly required for the maintenance of the equipment during its life time.

The operational objectives pursued are:

- To have, as initial stock, all Stored Spare Parts stored in the Subsidiary Warehouse(s), before the start-up of the relevant installations
- To get all the Operating Spare Parts (Stored Spare Parts and Non Stored Spare Parts) described and referenced in both CMIMS and MM module, in order to easily allow their procurement and/or replenishment at any time during the life time of the installations.

Vendor and Supplier are requested to provide Company with complete Spare Parts Dossiers including Spare Parts lists and documentation.

2. Reference documents

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
Not applicable	

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

Reference	Title
GS EP EXP 203	Maintenance and inspection documentation preparation during project phase

3. Terms and abbreviations

In the absence of a specific project document to define the contractual parties in the project, the following definitions apply to a project:

BOM	Bill Of Material
CFT	Call For Tender
CMIMS	Computerized Maintenance & Inspection Management System (name of the Affiliate's CMIMS)
Company	TOTAL E&P subsidiary
Contractor	Contractor directly contracted by Company
Company Representative	Party acting as representative of the Company
EL	Equipment List
EPC	Generic term for Engineering Procurement and Construction contract It covers different types of contracts: EPSCC, EPCC, etc.
GP	Project Group or Integrated Project Group
Item	The smallest element in a spare parts list (items in different spare parts lists can get the same Material Master code assuming they are identical)
LLI	Long Lead Items (pieces of equipment with a long delivery time)
Manufacturer	Manufacturer of a piece of equipment (or sub-equipment)
MatM	Material Master record (set of descriptive data of one spare part). 1 spare part = 1 "MatM" with a SAP/r3 number
MIE	Maintenance & Inspection Engineering: Activity related to the realisation of the maintenance & inspection engineering preparation, including spare parts dossiers

MIEC	Contract or change order for the performances of the maintenance & inspection engineering activities
MIE Team	Entity (affiliate or Contractor or Subcontractor of the EPC) in charge of the maintenance and inspection engineering activities.
MM module	Material Management module of SAP/r3
MM Module Quality Control Team	Company's team in charge of the quality control of the Material Management data
MRP	Material Requirement Planning: used for managing stock reordering
OEM	Original Equipment Manufacturer
PM module	Plant Management module of SAP/r3
PO	Purchase Order
PR	Purchase Request
ML	Manufacturer List
SPF	Spare Parts File → SPF consists in a list of one or several SPLs
SPF-E	Spare Parts File grouping by main equipment
SPL	Spare Parts List
SPL-E	Spare Parts List by main equipment
Supplier	Supplier of Company (LLI, Company Items)
Subcontractor	Contractor contracted by Contractors
MM Template	Template used to load Material Management data into the MM module
Vendor	Supplier of EPC or Contractors
V&S	Vendor and Supplier
C&P	Contract and Procurement

4. Spare Parts definition

A Spare part is a replaceable component, sub assembly, and assembly identical to and interchangeable with the item it is intended to replace.

In the document, Spare equipment and consumable specific to equipment, will be included in the denomination "Spare Part".

4.1 During Project phase Spare parts are classified in

4.1.1 Commissioning & Start-up Spare Parts

Spare parts necessary to perform properly the commissioning and start-up of the equipment.

These spare parts are consumed during these two phases.



4.1.2 Capital Spare Parts

Capital spare parts comply with most of the following criteria:

- High value (value being defined for each Project/Affiliate e.g. >k\$ 20)
- Due to their high cost and low frequency rate of use they are purchased on an investment budget (CAPEX)
- Considered as strategic for safety and operation (high downtime cost on impact on CPY reputation but not likely to fail and not for routine maintenance)
- Long delivery time (typically more than a Year) or not on shelf (unique piece such as rotor) that requires Project to buy them early.

Capital spares are to be described and referenced in both CMIMS and MM module, purchased and delivered, as initial stock, to the Subsidiary. Capital spares are identified and delivered by EPC contractor. They are all managed in operation as SE.

Capital Spare Parts are sometimes called Insurance Spare.

- In this document Capital Spare Parts refer only to parts bought in Capex.

4.1.3 Operating Spare Parts

Operating Spare Parts group all Spare Parts required to perform all curative and preventive maintenance activities on equipment. All parts reasonably required during the life time of equipment will be listed.

Preparation for first provision of Operating Spare Parts is made by MIE Team during project phase for operation phase at the exception of Capital Spare Parts.

Operating Spare Parts comprise of two categories:

- Stored Spare Parts to be described and referenced in both CMIMS and MM module, purchased and delivered, as initial stock, to the Subsidiary prior to start up.. they comprises of:
 - All parts that can be reasonably required for repair of equipment after failure to ensure production and safety. The quantity for initial stock will be based on the number of items installed and the delivery time up to the affiliate
 - MIE Team shall define the first stock quantity in accordance with estimated capability of the Affiliate Purchase Department to ensure a smooth replenishment.
- Non Stored Spare Parts, not purchased as initial stock but described and referenced in both CMIMS and MM module.



4.2 After Project phase, during operation

Spare parts will be categorized according to operation requirement and management codes of the affiliate.

Management code		Description
MM	MINI-MAXI	not repairable parts, regular consumption, wear parts
SU	Supervised	random consumption, repairable part
SE	Safety stock	spare part assembly or essential part of equipment linked to vital function
ND	not stored	not in stock but in BOM

5. Vendor or Supplier's scope

EPC Contractor must send, attached to the Purchase Order, to each of its V&S the SPF and SPL forms in view of collecting all spare parts data. The vendor of EPC will be named Main Vendor in this document.

As necessary, the Main Vendor may send SPL-E forms to its sub vendors and collect the data in SPF-E form or decide to send both SPF-E and SPL-E forms in case of significant package.

MIE team will receive the Main Vendor file and check its completeness and quality.

5.1 Scope of work

V&S shall prepare a Spare Part dossier, per equipment type. The Spare Part dossiers (SPF-E, SPL-E & ML) shall be filled in by V&S under the Company standard format (refer to Appendices 1 to 3). Initial source of information shall be from Manufacturers. Circulation of the documents shall comply with the workflow as described in Section 0.

V&S shall advise a number of items to purchase for the 3 categories, Commissioning & Start-up Spare Parts, Capital, and Operating Spare Parts, as per Project classification, as per the SPL-E form (refer to Appendix 2 respectively no. 35, no. 36, and no. 37).

V&S will bear in mind that the spare parts for the factory tests are not included in those 3 categories.

The Spare Parts dossiers shall cover all the disciplines (Mechanical, electrical, instrumentation, piping, etc.)

The Capital and Operating spare parts will NOT take into account the quantity proposed in Commissioning & Start-up Spare Parts

5.1.1 Commissioning & Start-up Spare Parts

This category includes all the required spare parts to cover any equipment failure including the additional risks induced by different working condition (fluid, temperature...) during the pre-commissioning, commissioning and start-up.

V&S shall submit a detailed recommended spare parts list for pre-commissioning, commissioning and start-up with all related documents. These spare parts will be provided with the respective equipment but on a single Spare Parts List (refer to Appendix 2 no. 35).



5.1.2 Capital Spare Parts

In addition to category no. 1, V&S shall submit with its proposal a detailed Spare Parts List with prices and revision formula for the Capital Spare Parts. The Capital Spare Parts will be described on the same Spare Parts List than the Category no.1 for the corresponding equipment (refer to Appendix 2 no. 36).

5.1.3 Operating Spare Parts

In addition to category no.1 and no.2, V&S shall submit with its proposal a detailed Spare Parts List with prices and revision formula for the Operating Spare Parts:

- Stored Spare Parts to be described and referenced in both CMIMS and MM module, purchased and delivered, as initial stock, to the Subsidiary
- Non Stored Spare Parts, not purchased as initial stock but described and referenced in both CMIMS and MM module.

Remark: V&S will propose as well complete Spare pieces of equipment. For those that are repairable, V&S will in addition propose the required spare parts and specific tooling to carry out those repairs (Those parts will be listed on a SPL-E following the relevant equipment).

6. EPC scope

All the equipment Purchase Orders issued by EPC shall include this document's stipulations. In particular, each PO shall notify that the preliminary spare parts dossier is to be transmitted to EPC within 10 weeks of the equipment PO.

EPC shall ensure that its V&S have fully understood the spare parts requirements.

EPC shall recover and check/update as required the spare parts dossiers received from V&S as per the workflow.

EPC shall return to its V&S the comments made by the MIE Team and the Company representative as per the workflow. This process is to be repeated up to achievement of Company's requirements, validation by the MIE Team and the Company representative.

Once the spare parts dossiers are validated by the MIE Team and the Company representative, EPC is responsible to issue the final spare parts dossiers provided by his V&S and/or Suppliers.

7. MIE Team role

MIE Team is in charge to check that the Vendor Spare Parts dossiers have been issued for all individual pieces of equipment, and to complete and update them as required.

For that purpose MIE Team shall contact EPC'S, V&S, as necessary to collect the missing information.

In the case of modification of installation or small Project, when there is no EPC, MIE Team takes the roles of EPC for Vendor SPF quality check and completeness verification.

8. Company role

The Company representative is responsible to validate the final Spare Parts dossiers.

Refer to the Spare Parts dossiers workflow chapter 0.



9. Spare Parts dossiers

Spare parts dossiers shall include spare parts defined in every phase of the Project (commissioning & start-up, Capital, and Operating spare parts).

Spare Parts dossiers shall be under electronic format (electronic native format) In addition the approved dossier shall be provided in "pdf" format.

All the documents shall be in the Project language (as defined in the contract).

9.1 Vendor dossier

The first step in the delivery of the spare parts dossier is done by V&S and is called "Vendor dossier".

Unless particular agreement in the contract, V&S shall complete and transmit the Vendor spare parts dossiers within **10 weeks** after the issue of the equipment PO. In case information is missing at this time, V&S will send the dossier with all information available and set the expected date for the complete dossier.

The vendor spare parts dossier shall contain all the required documents and information described here after.

9.2 Section 1 - Identification of Vendor or Suppliers' commercial references

Main Vendor shall describe its commercial references:

- First page:
 - PO number(+ change orders if any)
 - Equipment model number (EPC to provide the matching of equipment type and tag number)
 - Description of equipment including a list of maintainable pieces of equipment with model/type number and Manufacturer
 - Name and address of the Vendor or Supplier
 - Name of the Vendor or Supplier's focal point for this PO
 - Name of the Vendor or Supplier's representative for any spare parts matters.
- Following pages:
 - Names and addresses of Vendors and Manufacturers mentioned in the Spare Parts documents.

9.3 Section 2 - Commercial terms

The commercial terms of the spare part proposal will include:

- Proposal reference
- Validity duration of the proposal (unless specific constraints, the minimum validity period for spare parts price should be one year from the date of issue of the Spare Parts documents)
- EX-WORKS delivery lead times (partial or complete) of the spare parts.



9.4 Section 3 - Spare Parts documents

Vendor or Supplier shall fill up the Spare Parts forms in accordance with the “Instructions for completing the SPF-E, SPL-E and ML” (refer to Appendixes 1 to 3).

Vendor or Supplier shall pay particular attention to indicate a maximum of relevant technical characteristics in the field description (refer to Appendix 2, field code no. 28) of the SPL-E for each spare part (i.e. each item).

9.5 Section 4 - Spare Parts preservation

Protective packaging techniques shall be applied to spare parts subject to long term storage in order to prevent any degradation by corrosion, shocks or natural ageing.

Vendor or Supplier shall submit their preservation procedure for all the spare parts listed in the Spare Parts documents.

9.6 Section 5 - Documentation

Vendor or Supplier shall provide all the drawings and documents referenced in the SPL-E which are necessary for MIEC Contractor to compiling the Maintenance Dossier (**GS EP EXP 203**).

The typical documentation is the following:

- For each equipment or component:
General arrangement, drawings, exploded views, cross-Section drawings and sub-assembly drawings showing the location of all parts, and any useful notes to carry out the dismantling and re-assembly. On these drawings the Vendor or Supplier shall clearly identify the proposed spare parts.
- For specific parts and assembly:
Detailed drawings from the Manufacturers with dimensions and allowances, materials, heat treatment, manufacturing symbols and complete references.
- For standard parts:
Manufacturers' drawings, catalogues or manuals to facilitate their identification and location.

The quality assurance records and the certification dossier for the spare parts should be delivered together with the said spare parts.

9.7 Section 6 - Additional information

Vendor or Supplier shall provide any additional information required by Company to define the spare parts stock data.

9.8 Vendor SPF dossier Quality Control

Quality Controls will be carried out on spare part dossier up to fulfilment of Company requirement:

- First by the EPC, to be sure that the Spare Parts dossiers comply with the requirements of this General Specification



- Second by the MIE Team, to verify if the Vendor Spare Parts dossiers comply with the requirements of Company stock and sufficient to provide their required documents (Appendixes 3 to 6).

Company will check the MIE Spare part Dossier which contains vendor's data and MIE's proposal before approval. Company will reject any dossier with missing or incomplete information, and inconsistencies.

Note: Any non compliance with Company's requirement will make the dossier returned to Vendor.

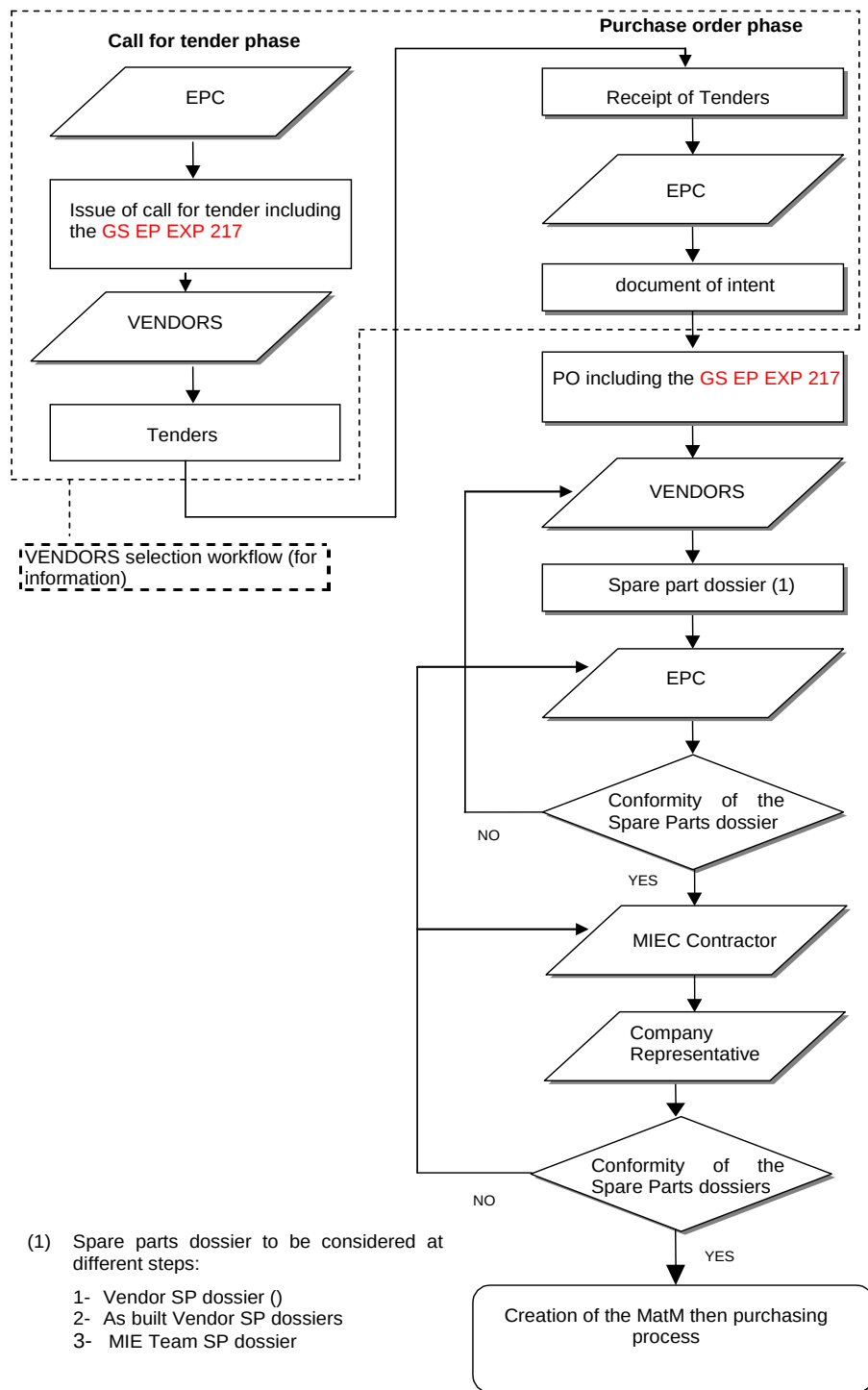
9.9 As Built SPF Vendor dossier

The As Built spare parts dossier, taking into account any modification that occurred during the equipment manufacturing period, will be transmitted thirty days after the formal acceptance of equipment. It covers modification decided by Vendors or requested by Company.

10. Spare Parts Dossier workflow

The Spare Parts Dossier workflow is described on the scheme here after

Simplified Spare Parts documents workflow up to the creation of a Material Master





Bibliography

GS EP EXP 205	Requirements to MIE Team for Spare Parts
GS EP EXP 207	Installation description structure



Appendix 1

The responsibilities to fill in the Spare Parts documents are described below and on each appendix in the Excel file.

Appendices 1 to 3: Vendor and EPC

MIE Team no.	Type of document	Information Source	Info provided by	Document prepared by	Quality Control by	Final review by	Decision for approval
1	VENDORS PF-E	Manufacturer	Vendor	MAIN Vendor	EPC	MIE Team	Company Representative
2	VENDORS PL-E	Manufacturer	Vendor	Vendor	EPC	MIE Team	Company Representative
3	ML	Manufacturer	Vendor	Vendor	EPC	MIE Team	Company Representative

[Vendor SPF-E GS EP EXP 217 En 00.xls](#)