



Exploration & Production

# GENERAL SPECIFICATION

## PROJECTS & CONSTRUCTION

**GS EP PJC 502**

### Requirements for Contractor criticality rating of a Unit

|      |         |                                            |
|------|---------|--------------------------------------------|
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## 1. Purpose

This specification defines the requirements for the evaluation and rating of the criticality of the Units delivered under the CONTRACT.

These requirements apply during the various phases of the WORK (e.g.: Design, Engineering, Procurement & Supply, Construction, Installation, Hook-up and Commissioning).

The objective of criticality rating is to define the level or amount of:

- CONTRACTOR Quality Surveillance and Inspection of its own activities
- Quality Surveillance to be carried out by CONTRACTOR upon its SUB-CONTRACTOR and VENDORS.

The criticality rating must be based on the consideration of risks represented by each Unit.

These requirements are also applicable to the SUB-CONTRACTOR and VENDORS contracted by CONTRACTOR through the complete supply chain.

## 2. External references

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 PJC 501 | Requirements for Contractor Quality Management   |
| GS EP PJC 503 | Requirements for Contractor Quality Surveillance |

## 3. Definitions

The **project risk level** is a comparative indication of the importance of a deliverable with respect to the likelihood and the consequences of its failure on project objectives.

The **unit risk level** is a comparative indication of the probability and consequences of non-delivery due to the relative “newness” of the unit and / or selected contractor.

## 4. Criticality rating through risk assessment

CONTRACTOR shall structure the deliverables in module, package, equipment, material (or services) and must conduct risk assessment at the appropriate level, taking into account its own purchasing strategy.

Naming “Unit” the appropriate analysis level, the output of this assessment process shall be the criticality rate of the Unit.

### 4.1 Risk assessment

Two categories of risks shall be considered for assessing the overall criticality of a Unit:

- Those arising during the Project phases (“Project risk level”).
- Those related to the supplier and nature of the unit (“Unit risk level”).

In each category, identified risks result from the combinations of the consequence (gravity) of individual possible failures with their probability of occurrence (probability of appearance and/or of detection).

The consequences are considered against various criteria detailed for each category, the risk level finally assigned being the **worst case** assessed for each category.

#### 4.1.1 Project risk level

CONTRACTOR must assess the project risk level by considering:

- The position of the Unit in the Project overall process and particularly its progress/its impact on the schedule
- The different “delivery failure” modes (e.g.: late delivery, “unfitness for purpose”, cost over-run) and the estimated associated probability
- The consequences of each “failure” mode on the Project objectives



- The operational risk factors (HSE/Safety, Fluid characteristics, Availability and accessibility for Maintenance).

#### 4.1.2 Unit risk level

In order to assess the unit risk level, the CONTRACTOR must factor in:

- The complexity of the Unit
- The maturity of the design, engineering, manufacturing and installation processes, especially **for innovative products** (even if limited to a minor component of the Unit)
- The complexity of the realisation processes
- The confidence level into SUB-CONTRACTOR or VENDOR concerned with the Unit (HSE during all Project phases and regular satisfactory deliveries track record)
- The recent industry feedback.

The combination of failure probability and failure consequences provide a risk level ranging from "very high" down to "acceptable" (4 levels) for each "failure" mode; the **worst failure risk level is the one assigned to the Unit.**



## 4.2 Criticality rating

The criticality rating assessment is performed by combining the unit risk level with the project risk level according to the following table.

| Unit risk level | Project risk level |      |          |            |
|-----------------|--------------------|------|----------|------------|
|                 | Very high          | High | Moderate | Acceptable |
| Very High       | 1                  | 1    | 2        | 2          |
| High            | 1                  | 1    | 2        | 3          |
| Moderate        | 1                  | 2    | 3        | 4          |
| Acceptable      | 2                  | 3    | 4        | 4          |

Rating 1: "Unit" is highly critical

Rating 2: "Unit" is critical

Rating 3: "Unit" is moderately critical

Rating 4: "Unit" is not critical

The results of criticality assessment shall be provided by CONTRACTOR to COMPANY for approval together with the QC Plan(s) pertaining to the Unit, defined in the General Specifications **GS EP PJC 503**.

## 4.3 Other rating methods

If the CONTRACTOR uses a different method to rate criticality, he may submit it to the COMPANY for approval.

If the method is not approved, the method described above must be applied.

## 5. Using criticality ratings for Quality Control activities

The CONTRACTOR's QC Plan for the Unit and the Quality Surveillance program upon the SUB-CONTRACTORS or VENDORS concerned shall be based on the Unit criticality rating.

The criticality rating shall guide the level of the Quality Surveillance pertaining to the Unit; the higher the criticality rating, the more detailed and extensive the verifications will be.

The scheduling, execution and recording of surveillance activities performed by CONTRACTOR within its own processes is defined in General Specification **GS EP PJC 503**.

The implementation of the retained criticality rating method must be described in the overall Quality Management by CONTRACTOR as per **GS EP PJC 501**.