



Exploration & Production

GENERAL SPECIFICATION

CORROSION

GS EP COR 163

Chemical treatments for corrosion control: Engineering and construction requirements

05	10/2009	Minimum content in active component increased for biocide, consistently with GS EP COR 002
04	10/2008	Reference to GS EP PVV 814 has been added and tank and pump descriptions modified accordingly
03	10/2005	Change title, field of application - Addition of "EP" root to GS identification
02	10/2004	Include chlorination treatments. Include practical chemical dosage
01	09/2003	Change of Group name and logo
00	10/2002	First issue
Rev.	Date	Notes

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1. Scope

Engineering, construction and start-up requirements applicable to the following anti-corrosion chemical treatments:

- Corrosion inhibitors
- Biocides
- Oxygen scavengers
- pH stabilisation
- Chlorination (with regard to corrosion control purpose).

This specification applies to all components of a production installation which are in contact with process fluids (produced and injected fluids). Unless otherwise specified, service and utility fluids are not relevant to this specification.

Field implementation of chemical treatments during the production phase is not part of this specification.

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 COR 002	Corrosion control on production facilities: Field operations
GS EP PVV 814	Skid mounted units for chemical products injection systems

3. Specific requirements per type of chemical

3.1 Corrosion inhibitor treatments

Unless otherwise specified, corrosion inhibitor treatments are based on continuous injection.

An inhibitor availability of 95% shall be assured for flowlines (considering only one injection point). For trunklines, or when at least 2 fully independent injection devices are used, the inhibitor availability shall be of 98%.

Injection pump redundancy, detectors of injection shut-down, minimum storage capacity, injection flowmeters shall be adapted to these inhibitor availability requirements.

In particular cases, batch treatments of pipelines are needed. Specific requirements for such treatments are part of this specification.

A specific inhibitor selection shall be performed as part of the project. The planning of this selection study shall allow the inhibitor availability on site from the start-up date, including all necessary time schedule for inhibitor fabrication and supply to the production site.

3.2 Biocide treatments

The most usual biocide treatment is a "shock treatment" at high concentration during a limited time period.

A pig is sent prior to a shock biocide treatment. Pig traps shall be made available for such pigging operations.

A continuous biocide treatment may be applied to water injection circuits during a limited time period (usually 3 months) when a reservoir souring must be prevented. If this treatment is needed, a specific injection system shall be installed for this purpose. This system may be a temporary one.

Specific biocide treatments may also be specified for closed and open drain facilities. COMPANY shall approve the design and application method of such specific treatments.

3.3 Oxygen scavenger

Unless otherwise specified, no oxygen scavenger is required on production circuits.

Oxygen scavenger injection is required on water injection circuits involving aerated water (from sea, rivers, lakes, etc.).