

OGP Coating workshop

London - 10/11 June 2008



Summary

▶ TOTAL internal specifications

- Offshore structure
- Onshore structure
- PFP coatings
- Internal protection
- External pipe line protection
- Thermal insulation subsea
- Internal pipeline protection
- External coating of risers in splash zone

▶ Update on work within TC35/SC14

- WG6 : Rev of ISO 12944-6
- WG9 : Rev of ISO 20340

▶ Update on work within ISO TC67/SC2

TOTAL internal specification-Paints

- ▶ **Painting : General philosophy is to have acceptable systems listed in the specs and tested as per ACQPA (Association pour la Certification et la Qualification en Peintures Anticorrosion ACQPA.COM)**
 - GS COR 350 : External protection of offshore and coastal structures and equipment by painting
 - GS COR 351 : External protection of offshore and equipment by painting : Floating structures
 - GS COR 352 : Internal protection of equipment by painting
 - GS COR 353 : Design and application of PFP coatings
 - GS COR 354 : External protection of onshore structure and equipment by painting

- ▶ **At present, only Zn Silicate primers acceptable for offshore, but might change in the near future to Zn Rich epoxy as alternative.**

- ▶ **What is still missing and is needed to the industry is a qualification process for paint systems (including testing procedures others than corrosion properties...impact, abrasion etc...)**

TOTAL internal specification-Pipe coating

- ▶ **General philosophy is to apply only three layers PE or PP.**
- ▶ **Lately, feedback shows examples of massive disbondment of coatings for onshore pipelines, associated with corrosion at field joints.**
- ▶ **Total is doing a lot of RD on this issue (see publications at last conference on pipeline coatings BHRA-Edinburgh-november 2007)**
- ▶ **Depending on the outcome, we might go to FBE or dual layers type powdered coatings.**
- ▶ **For field joint, we ask now for grit blasting and epoxy for HSS, and use more of liquid epoxy or PUR.**
- ▶ **Total specs :**
 - GS COR 220 : External three layers PE coating
 - GS COR 221 : External three layers PP coating
 - GS COR 222 : External FBE coating
 - GS COR 223 : Hot enamel coating
 - GS COR 225 : Flamme sprayed coating PE/PP
 - GS COR 230-231 : Coatings of risers in splash zone with GRP and elastomers

TOTAL internal specification- Internal coating of pipes and thermal insulation for subsea

► For coating of internal pipe lines :

- Not a corrosion resistant coating
- List of product acceptable in the spec (also used by GdF).
- Tests performed to link physical roughness to flow efficiency (see presentation to pipeline coating conference – BHRA – Edimburgh – Nov 2007)

- GS COR 250 : Flowcoat for pipelines
- GS COR 251 : Internal coating for water injection pipelines

► Wet thermal insulation

- GS COR 226 : Wet thermal insulation of subsea structures
- Start of a new WG within ISO.

Update on work within TC35/SC14

- ▶ **ISO TC35/SC14/WG9 : Revision of ISO 20340-Paints and Varnishes/Performance requirements for protective paint systems for offshore and related structures**
 - Last meeting in Paris May21-22.
 - Review of all comments from DIS
 - Agreed to go on with FDIS → To be published in 2008
 - Main changes : Separation between Zn and non Zn primers with different acceptance criterias (3mm rust creep for Zn and 8 mm for non Zn)

- ▶ **ISO TC35/SC14/WG6 : The new FDIS was circulated and rejected (12944-6)... The old version from 1998 remains valid. The new revised version has passed the EN voting...request to cancel this new version to avoid to have two standards for the same application.**