



COATING MAINTENANCE STRATEGY IN A MARINE ENVIRONMENT

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Reference, date, place

OUTLINE



- ▶ INCREASE IN COATING MAINTENANCE COST
- ▶ PREVIOUS COATING MAINTENANCE CONTRACT
- ▶ TOTAL INDONESIA COATING MAINTENANCE
GUIDELINE
- ▶ SURVEY OF STRUCTURES
- ▶ CLASSIFYING THE CONDITIONS
- ▶ DEFINING THE SCOPE OF WORK
- ▶ DETERMINING THE CONTRACT'S TYPE
- ▶ CONCLUSION



JUST TO GIVE YOU AN IDEA



3 - Reference, date, place



INCREASE IN COATING MAINTENANCE COST



- ▶ TOTAL INDONESIA production platforms are located in the marine environment of delta mahakam and offshore Senipah
- ▶ Coating maintenance costs include the marine support
- ▶ With the rise of fuel price, a rise in coating maintenance cost
- ▶ Reevaluation of the coating maintenance strategy for cost-effective repair

4 - Reference, date, place



PREVIOUS COATING MAINTENANCE CONTRACT



- ▶ With the start of coating maintenance program, we found so many offshore platforms requiring complete reblasting and recoating
- ▶ The running contract were lump sum type, no problem with the intended work
- ▶ As the maintenance advances, remaining platforms only require partial reblasting and/or recoating
- ▶ Lump sum doesn't fit the scheme

5 - Reference, date, place



TOTAL INDONESIE COATING MAINTENANCE GUIDELINE*



A cost-effective coating maintenance should guarantee that a paint is applied within 1 year to any visible rusted or disbonded paint surface, in order to prevent not only losses of confinement but also expensive repairs/replacements prior to coating

*GS EP COR 002

6 - Reference, date, place



TOTAL INDONESIA COATING MAINTENANCE GUIDELINE*



7 - Reference, date, place



TOTAL INDONESIA COATING MAINTENANCE METHODOLOGIES*



- ▶ Large coating operation during a limited period of time, covering structures, piping, and equipment
- ▶ Short duration operations dedicated to a well defined and limited scope and to a specific team
- ▶ Long term daily coating maintenance with light teams hosted on site

*GS EP COR 002

8 - Reference, date, place



SURVEY OF STRUCTURES



- ▶ Assessment of the rust degree, distribution and remaining coating thickness
- ▶ Aid corrosion engineer in defining coating maintenance scope of work
- ▶ Reporting form made available to ease the coating inspectors



SURVEY OF STRUCTURES



Example of Coating Survey Report
 Facility: Offshore Well Platform A2C
 Date of survey: 21 Sep 08

Item	Rust Degree (%)	Distribution	Peeling off (%)	Remaining Thickness (microns)	Priority	Remarks
Deck Structures						
Legs of well platform	30	General		300	1	
Legs of walkway	10	Spot		300	2	
Atmospheric Structures						
Topdeck/Top	30			30	1	
Flare stack/burner tank	1			250	4	
Process area items						
Vertical	N/A					
Horizontal	N/A					
Weld Piping	5	Spot		250	4	
Other Piping	5	Spot		250	4	
Equipment						
Christmas tree	1	Spot		250	4	
Other atmospheric items						
Rail supports	5	Spot		250	4	
Handrail	1	Spot	20	50	2	Peeling off coating may require removal and recoating
Grating	30	General		N/A		
Walkway frame	5	Spot		250	4	
			Overall Priority		1	Priority 1 is the highest and 4 is the lowest



CLASSIFYING THE CONDITIONS



- ▶ Requires complete reblasting and recoating, initially encountered when starting a coating maintenance program
- ▶ Requires partial reblasting and recoating and/or topcoating, encountered as the coating maintenance advances
- ▶ Requires daily spot repair with limited tools, only to keep spot rusting from spreading out

11 - Reference, date, place



DEFINING THE SCOPE OF WORK



- ▶ By the aid of conditions classification and survey reports
- ▶ Types or repair on particular items
- ▶ Estimation on square meters of coating job
- ▶ Provided with 5-15% tolerance as the rust will progress since the survey reported to the time of repair job started

12 - Reference, date, place



DETERMINING THE CONTRACT'S TYPE



- ▶ Requirement of recoating any visible rust within a specific time
- ▶ Already rusted platforms requiring complete/partial reblasting and recoating
- ▶ Rust progress since the definition of scope of work, contract administration, to the repair job realization
- ▶ Daily and unit rate types of contract fit the scheme

13 - Reference, date, place



CONCLUSION



- ▶ Marine support adds cost to coating maintenance in marine environment
- ▶ Specific methodologies aid in cost-effective approach of coating maintenance
- ▶ As the coating maintenance advances, adaptation on the survey technique, definition of scope of work, and contract's type, is required

14 - Reference, date, place





THANK YOU. QUESTIONS?

