



CASE STUDY

Work Boat Based Coating Project for Unmanned Platform at Offshore

Corrosion in marine environment is severe and can lead to structure failure. One of the Biggest Operators in Asia has found serious corrosion problem at many of the offshore structures. Several platforms required immediate attention towards corrosion. Old coatings applied at different locations have undergone severe deterioration and bare metal was visible at many points.



Strategy was devised to control further corrosion and main focus was on right selection application and inspection of coating systems. A strict inspection methodology was developed to check any irregularities during and after application. Annual inspection and survey of platforms was suggested to arrest any coating failure at initial stage.

Contract for this coating project was awarded to JK Surface Coatings Pvt. Ltd. Company has great understanding in corrosion study, specification, chemical selection and project execution. Coating selections complying with the recommendation of experts was made by experienced individual and coating/corrosion experts in JKSC and the selections reflected proper balance of technical and economic factors. All the coating selection was well documented and transparent. All the coating systems selected for project execution was tested at IIT /JKSC laboratory under right supervision to avoid any problems/confusion during application stage. Samples of each and every batch of coating systems was sent to third party lab for proper quality check before sending the materials to offshore in order to avoid application of any inferior product and premature failure.

Two workboats were arranged for project execution. JKSC has mobilized advanced machineries (650 cfm compressors, after coolers etc), high end inspection kits, chemicals, best PPE items and finally the best project team to handle this challenging project.



JKSC Approach during Project Execution

- Thorough consideration of Ambient Conditions at each and every stage of surface preparation and coating application.
- Sound Surface preparation using experienced blasters, abrasives, machineries and international kits/standards to check cleanliness and surface profile.
- Right Application of Required Coating system. Only skilled painters were involved for application of high performance paint system. Divers were involved for underwater application
- Sufficient number of experienced managers and supervisors were deployed to control the quality of jobs at each and every location of platform
- Stringent Quality Check was carried out at each and every stage of surface preparation and application.
- Proper Documentation to Check any Discrepancies, if any.

Coating Inspection by JKSC

Since Splash Zone is most prone to corrosion, strict inspection procedure was developed.

1- 100% holiday testing at all the locations falling under splash zone. In case of any pinhole, proper rectifications were done following proper standards.

The result of this approach was no pinholes/holidays at all the locations under splash zone for all the platforms coated by JKSC

2- Adhesion test was carried out following ASTM standards at various locations. Minimum acceptable adhesion was 8 Mpa which ensured proper bonding of coating with substrate.

Inspection at other locations was also done very stringently following ASTM/SSPC/ISO standards



THE FINAL OUTCOME

- The structures will not require “Frequent Touch Up” jobs.
- Proper surface preparation, application, inspection and supervision ensured desired coating service and corrosion resistance.
- Report of Annual Inspection of coated platform carried out by operator was encouraging as only few platforms have shown little coating degradation which was easily rectified. Coating system at rest of the platform was found to be in absolutely sound condition.



JKSC believed in giving the first application the best chance of survival.