Case Study for Arma Flake EHB for CT Winch at Petronet Jetty.

Scope of Work:

To provide suitable coating system which can perform on CT winch area for atleast four years but without carrying out abrasive blasting or hydro jetting

Challenges :

Most of the coating systems has failed and could not perform for more than 2 years as the structure was directly exposed to saline atmosphere due to proximity to Sea along with other factors such as high Humidity, temperature variation, vibration etc. Also, being an LNG jetty, abrasive blasting could not be carried out and the only possible mean of surface preparation were manual cleaning and power tooling . Also, the irregular surface of CT winch area restricted the degree of cleanliness by causing steric hindrance.

Requirement :

An advanced coating system was required which is highly impermeable to control the ingress of salt, water, oxygen etc with other required physical & chemical properties such as excellent abrasion & impact resistance with corrosion resistance properties. Most importantly, the system should adhere on the minimally cleaned surface with a minimum adhesion strength of 8 Mpa for a providing long term durability.

Solution :

Armaflake EHB was proposed which has excellent adhesion properties (+ 7 Mpa on ST-2 Cleaned surface), highly impermeable due to modified resin and perfect loading of high grade glass flakes and excellent chemical and corrosion resistance. The system can build upto a high DFT and can cures very fast even in high humid condition or presence of water. The system was in perfect match with the requirement of jetty and should be able to perform more than 5 years without any problem

Specification :

Location	Surface preparation	Coating System	DFT (Microns)
CT winch area of Jetty	Manual and Power Tool(ST-2)	Armaflake EHB Armaflake EHB Acrylic polyurethane Total	200 200 50 450

Approach :

A trained team were engaged and a clear instructions were given regarding product application , pot life and induction time DFT build up/ stripe coating and inspection criterion. A joint ITP was made in consultation with contactor and was submitted to the client before application.

The whole process was developed on the concept of “No Hazard” & revolves around Quality, Health, Hygiene, Safety, Security &, Environment.

Out Come :

The coating performance was well appreciated by the Petro net Management and based on the excellent results, additional scope for coating of other CT Winch Areas were given. Also, being a solvent less coating but with right rheology, the entire application of environmental friendly system was done in the most seamless manner by trained applicators. Additional CT winches were also coated in a perfect manner.

Other Suggested Areas :

Jetty Piles, jetty pipelines, splash zone and other area at offshore structures, concrete structures exposed to high corrosion.