

Product Case History



White Rose Project

PRODUCT(S) USED:

Exterior Coating 1: Carbozinc 858

Exterior Coating 2: Carboxane 2000 WG

AREA COATED:

The Grand Banks of Newfoundland is often referred to as one of the most demanding environments on the face of the earth. Battered by high winds, waves, ice and snow and shrouded in salt fog for much of the year, the Grand Banks is truly the proving ground for high performance coatings. This was the challenge facing the design engineers of the Husky Energy White Rose FPSO Project (Floating Production, Storage Offloading facility). And, with a design life of 20 years, the coating systems had to perform with only limited maintenance.

Aker Maritime Kiewit Contractors (AMKC), a partnership formed between Aker Maritime and Peter Kiewit and Sons to design and fabricate the FPSO topsides modules, tendered a request for proposal to the world's leading coating manufacturer's to submit proposals for the supply of coating materials.

LOCATION:

GRAND BANKS OF NEWFOUNDLAND

DATE OF APPLICATION:

MARCH 2004

MARKET:

OIL & GAS

SUBSTRATE:

STEEL

SURFACE PREP:

CLEAN & DRY

EXPOSURE:

HIGH WINDS, WAVES, SALT,
ICE & SNOW

SURFACE PREP:

SA 2 1/2" WHICH IS EQUAL TO
SSPC SP10



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Evaluations of the proposals were based on experience, materials of construction, ability to perform the work, supply of materials, pricing and other factors. The main coating system specification 2 and 2B had to pass the stringent Norsok M501 standard and be supported by 5-year reference information showing excellent performance. Carboline delivered.

COATING SELECTION EXPLANATION:

Carboline was selected by AMKC to provide over twenty different coating systems for the topside modules including a zinc rich epoxy primer with a Polysiloxane or Silane-Modified multipolymer topcoat for coating most of the external carbon steel on the project. This system consists of Carbozinc 858 - a two component organic zinc rich epoxy, providing excellent corrosion resistance and excellent undercutting resistance and Carboxane 2000 WG - a two-component Silane modified multi-polymer with excellent barrier protection along with superior UV and colour retention.

As a two-coat system, Carbozinc 858 with topcoat Carboxane 2000 WG is truly a hybrid coating system. The permanent corrosion protection of the zinc primer when coupled with the high-build, highly cross-linked and dense film of the Carboxane 2000 WG results in a two-coat system with outstanding corrosion and weathering performance. The labour savings offered by eliminating an intermediate application of coating, along with the extended gloss and colour retention of 2 to 4 times that of a standard finish, makes this system extremely economical.

Some of the main features of Carboxane 2000 WG:

- Outstanding colour and gloss retention
- Flexible film for its class
- Isocyanate-free
- Can be applied by spray, brush or roller
- Excellent barrier protection and chemical resistance
- Can be used as a maintenance coating for all industrial applications
- Tough, abrasion resistant film
- High build (3 - 7 mils)
- Can replace two applications of paint coating
- High solids

Carboline's two-coat system of Carbozinc 858 and Carboxane 2000 WG was first introduced in Europe some years ago and was installed on several offshore oil platforms operating in the North Sea. Some of the Projects included Gullfaks A, Gullfaks B, Gullfaks C, Vestlefrikk, Oseberg South, Oseberg East and Snorre B. Each project was independently inspected after 3 years and the results showed <0.1% rust with the only problem areas being attributed to dirt left on the substrate prior to coating.

To date, Carboline has millions of square feet of steel coated with Carbozinc 858 and Carboxane 2000 WG and the project list continues to grow.

Under the current schedule the Husky White Rose FPSO is scheduled to arrive in Marystown, Newfoundland & Labrador in early 2004 where the installation of the Topsides, Hook-up and commissioning will take place. It is expected that this procedure will take several months to complete with the first oil expected in late 2005.

We have enjoyed being a part of this project and meeting the challenges set forth to us. If you wish to learn more about this project or any of our products, please feel free to contact us at 1-800-263-3112 or by email at canada@stoncor.com.