

Corrosion Control with the use of Protective Coating

You are a coating specialist who offers third party Independent advice and Consultancy on corrosion control and protective coatings.

Your Client is negotiating to purchase a number of tanks and vessels used for storing various types of material from crude oil to solvent.

The tanks and vessels are all manufactured from steel and situated near the coast.

The Client has asked you to survey the coatings, both internally and externally and give an assessment on the condition of the coatings and itemise recommendation for achieving a twenty year life.

The survey has to be split into internal and external. The tanks and vessels are free from any cargo etc, have been water washed and free from hazards.

Produce a survey report detailing the conditions of the coatings using appropriate standards and reference documents. Detail the tests conducted to assess the coating condition and recommendations on future maintenance considering current coating condition, past maintenance and environment.

The client is keen to upgrade, as necessary, the internals of the tanks as these will generate the revenue.

Review of site documents is limited however the following information has been give to you.

External:

20 tanks have epoxy/urethane coatings on

12 tanks have alkyd coatings on

No external maintenance has been conducted for 6-8 years.

Internal:

10 tanks have a zinc silicate on to all internals

10 tanks have a glass flake polyester on to all internals

4 tanks have a epoxy phenolic on to all internals

8 tanks have a coal tar applied to the bottom of the tanks only

There is limited information on the use of cathodic protection.

The Client is negotiating a contract to store aviation fuel in all the tanks.