

Re-Coating of City of Conroe WWTP Clarifier

Section A is to be used in submerged areas

Section B is to be used in non-submerged areas

A. Coal Tar Epoxy.

1. Surface Preparation.

- a. Protection. Vehicles, equipment, structures, or other nearby surfaces not to be coated, shall be protected from blasting products and overspray throughout all surface preparation and coating operations. Transitions into uncoated areas shall be neatly taped-off or otherwise protected.
- b. Initial Cleaning. If necessary, surfaces shall be decontaminated by high pressure water blasting, steam cleaning or by any other method to remove all oils, greases, scum and surface contaminants.
- c. Decontamination. Surfaces previously exposed to salts or other chemical services shall be decontaminated by high pressure fresh water blasting, steam cleaning or by any method to remove all surface contaminants and eliminate or reduce subsurface contaminants to an acceptable level. If detergents are used, they shall be completely rinsed with plenty of fresh water.
- d. Abrasive Blast Cleaning per SSPC Standard No. SP-10, "Near-White Blast Cleaning" with a 1-1/2 to 2 mil (37.5-50 micron) surface profile. Blast or grind irregular surfaces to same condition as flat surfaces. Sharp edges shall be ground down and rounded. If flash rust develops, all traces shall be removed by abrasive sweep blast before priming.
- e. Cleaning of Adjacent Areas. After abrasive blasting is completed, areas adjacent to the work area shall be cleaned of dirt, blasting residues and other debris to prevent wind-blown contamination of the prepared substrate or freshly applied coatings.
- f. Final Cleaning Before Application of Coating. Just prior to primer application, surfaces to be coated shall be power vacuumed to remove all dust and blasting residues. Transitions into adjacent areas not to be coated shall be neatly taped off or otherwise protected. Steel surfaces must be absolutely dry and dust-free prior to and during application of the primer.

2. Application. The total dry film thickness after 5 days shall be 20 mils.

- a. One Coat (Primerless). 20 mils dry film thickness.

B. Polyurethane Three-Coat System.

1. Surface Preparation.

a. Protection. Vehicles, equipment, structures, or other nearby surfaces not to be coated, shall be protected from blasting products and overspray throughout all surface preparation and coating operations. Transitions into uncoated areas shall be neatly taped-off or otherwise protected.

b. Initial Cleaning. If necessary, surfaces shall be decontaminated by high-pressure water blasting, steam cleaning, or by any other method, to remove all oils, greases, scum and surface contaminants.

c. Abrasive Blast Cleaning for External Coating. Surfaces shall be cleaned as per SSPC Standard SP-10, "Commercial Blast Cleaning."

d. Cleaning of Adjacent Areas: After abrasive blasting is completed, areas adjacent to the work area shall be cleaned of dirt, blasting residues and other debris to prevent wind-blown contamination of the prepared substrate or freshly applied coatings.

e. Final Cleaning Before Application of Primer: Just prior to primer application, surfaces to be coated shall be power vacuumed to remove all dust and blasting residues. Transitions into adjacent areas not to be coated shall be neatly taped off or otherwise protected. Steel surfaces must be absolutely dry and dust-free prior to and during application of the primer.

2. Three Coat Application. The total dry film thickness (DFT) after 5 days shall be 9 to 13 mils for metallic surfaces.

a. First Coat. First coat with zinc rich epoxy or organic zinc primer @ 3 to 4mils DFT.

b. Second Coat. Second coat with chemical resistant epoxy @ 4 to 6 mils DFT.

c. Third Coat. Third coat with UV stable polyurethane topcoat @ 2 to 3 mils DFT.