Application Profile

Project: WasteQuip Accurate Industries, Fly Ash Storage Bins

Project Owner: Allied Waste, Lawrenceville, VA

Polyurea Applicator: Waste Ouip Accurate, Erial, New Jersey

Inspection / Project Monitoring by Primeaux Associates LLC

& Digital Intent Inc / Polyurea.com

Polyurea System Applied: InstaCote® M-25, InstaCote, Inc., Erie, MI

Substrate / Area: Steel Waste Storage Bins, approx 625 ft² each

Date: June, 2004

Waste quip Accurate was contracted by Allied Waste to construct steel fly ash storage bins, used following the burning of munical solid waste. This fly ash is wet and has a high salt content, which is very corrosive. Allied wants a 10-year life out of the bins, but currently only get about 3 years. Following extensive testing, Allied specified the use of the InstaCote M-25 polyurea systems as an applied liner system inside the new bins. A total of 66 boxes were built and lined for the first phase.



The boxes were constructed at the Wastequip facility at a rate of about 6 per day. These boxes are 25 feet long, 8 feet wide and 8 feet tall. One end opens and the top lid can be removed. The fly ash tends to cake at the bottom and then requires the use of a backhoe bucket to remove. This typically damages the conventional paint that has been applied. This damage, coupled with the stress cracking from movement, leads to deterioration of the boxes. The InstaCote M-25 aromatic polyurea system was chosen due to the resistance of the material to the corrosive chemical nature of the fly ash, toughness and flexibility of the membrane liner.

Following construction, the boxes were blasted using a commercial blast, SSPC SP 6, to a profile of about 2.5 mils. The InstaCote M-25 was then applied, direct-to-steel, at a minimum average of about 60–80 mils (1.5 - 2.0 mm) on the interior walls and 100 mils (2.5 mm) on the floor.







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