

Application Profile

- Project:** Bridgewater, CT Power Plant—Fly Ash De-Watering Bin
- Polyurea Applicator:** Jean's Waterproofing, Inc., Auburn, Maine
Project Review / Monitoring by Primeaux Associates LLC
- Polyurea System Applied:** PolyArmor® 444-370, Medium Gray
Visuron Technologies, Inc.
- Accessory Products:** Chlor*Rid Soluble Salt Test / Removal Solution
- Substrate / Area:** Steel Cylindrical Bin
- Date:** October, 2001

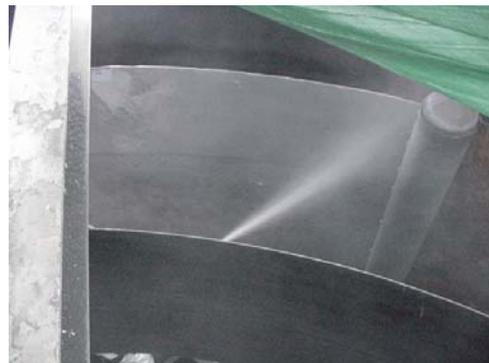
During a power plant repair shutdown, a fly ash de-watering bin was to be re-lined using the PolyArmor 444-370 aromatic polyurea spray elastomer system. The original epoxy lining had begun to fail due to cracking caused by the elevated temperature and significant vibration of the bins. The PolyArmor 444-370 was chosen due to the excellent flexibility of the lining system, resistance to the elevated temperatures and corrosive environment of the fly ash. The rapid cure time proved beneficial in the cool weather.



The application procedure called for abrasive blasting of the steel bin interiors to remove the epoxy system. This proved very difficult and air chipper / hammers had to be used to initially remove the 2-coats of flake filled epoxy. The area was then re-blasted to remove the corrosion and provide for a 3-4 mil profile. This was a complete confined space application so all the appropriate OSHA PPE was required.

After blasting, the area was checked for soluble salts using the Chlor*Rid method. Soluble salt content was found to be less than $2 \mu\text{g}/\text{cm}^2$, well within the industry standard of $< 5 \mu\text{g}/\text{cm}^2$.

The PolyArmor 444-370 was applied at an average film thickness of 120 mils using a GUSMER Hydraulic Marksman proportioner fitted with a GUSMER GX-7 400 series spray gun. The application was completed in a very timely manner and will provide corrosion protection for this environment that far exceeds the 2-coat flake filled epoxy system. Based on the application work performed, the other bin will re-lined at the next plant repair shutdown.



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