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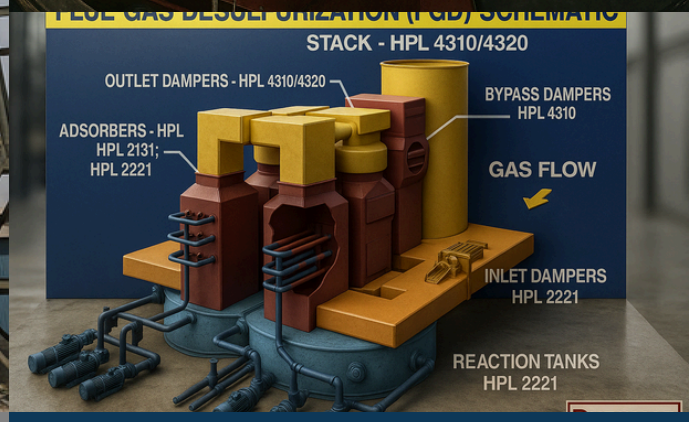

Restoration of FGD Absorber Box Beam Using Duromar® HPL-2131

Case Study

Scope of Work

The project involved cleaning and restoring a corroded FGD absorber box beam that had been exposed to aggressive flue gas condensates and abrasive slurry. The objective was to remove surface contamination and apply a robust protective coating system to extend the operational life of the structural component.

Solution

Arudra Coatings implemented a comprehensive restoration solution tailored specifically for FGD service conditions. In addition to thorough surface preparation, a multi-step application strategy was used to ensure lasting performance in highly corrosive and abrasive environments. By combining advanced surface rehabilitation and a premium Duromar® coating system, the team delivered a durable, long-term protection solution that minimizes future downtime and extends the operational life of the absorber component.

Product

Duromar® HPL-2131

It is a high-performance epoxy coating, was selected for this application due to its proven resistance to flue gas condensates, slurry abrasion, and high-temperature moisture. The product forms a seamless, chemical-resistant barrier and is specifically engineered for demanding FGD environments. Its excellent adhesion properties and long-term durability make it ideal for critical infrastructure where reliability and reduced maintenance costs are essential.

Application Procedure

Surface Preparation:

The box beam surfaces were grit-blasted to SSPC-SP10 / NACE No.2 near-white metal finish in order to remove all rust, scale, and contaminants and to create an optimal surface profile for coating adhesion.

Rebuilding

Areas exhibiting localized metal loss or pitting were rebuilt using suitable Duromar® repair compound and trowel-applied to restore the original surface profile and structural integrity.

Finishing with Duromar® HPL-2131:

After the rebuilt areas were cured, a uniform coat of Duromar® HPL-2131 was applied using plural spray equipment to ensure a seamless, chemical-resistant finish across the entire beam surface.

Curing:

The coated surface was allowed to cure under controlled conditions to achieve full polymerization and bonding before the equipment was returned to service.

KEY FEATURES

- Seamless protective barrier
- Superior corrosion resistance
- Reduced maintenance costs
- High chemical resistance
- Strong Adhesion to Substrate
- Long-term durability

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