Coal Silo

Power-Fossil — Coal Handling
ARC 858 and 855 Coatings
Case Study 008

Challenge

Goal
Coat and arrest metal loss in coal silos corroded such that reduced wall thickness, and required complete replacement.

Root Cause
Catastrophic failure of HDPE liners exposed the metal to wear and aggressive corrosion and abrasion from the high sulfur coal.

Solution

Preparation
HDPE liners removed and surface abrasive blast cleaned to Sa 2.5 with 3 mil (75 µm) profile.

Application
1. ARC 858 was applied to all weld seams and pitted areas
2. Two coats of ARC 855 ceramic coating applied to a total thickness of 30-40 mils (750-1000 µm)

Results

1. 1995 - first silo coated
2. Inspection of the first silo after 2 years, showed no signs of corrosion
3. Customer ordered ARC Solution for 3 additional silos

Client Savings After Cost of ARC

Cost avoidance per silo:	$150K
Total cost avoidance:	$600K

$=USD

Abrasion and corrosion caused through wall damage in many areas of the silo


First coat of ARC 855 being applied


Roof and top of silo completed

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