

ASGCO®- Wash Box System

Industry	PRB Coal Burning Power Plant
Application	Installed as a secondary belt cleaner for a conveyor running through a tunnel, making it difficult for cleaning the underneath of the conveyor
Product	ASGCO®- Wash Box System
Objective	Prevent carryback and keep dust to a minimum

Challenge

In today's coal burning power plants, it is essential to keep carryback and dust to a minimum. With power plants having to cut back on maintenance crews to service these conveyors, belt cleaners get overlooked, and very seldom get cleaned or re-tensioned. Many times as you walk conveyors you find material built up under return idlers and pulleys. As you inspect the belt cleaners at the head section, you usually find primary blades flipped or the blade isn't even touching the belt. As you look further and inspect the secondary system, you find that it is covered with material or it's not even touching the belt.

One Midwest coal burning power plant that I call on has this problem; the belt cleaners that were installed were not being adjusted and were not able to clean the belt. This conveyor runs through a tunnel which makes it difficult for housekeeping to clean underneath the conveyor. With the conveyor being in a tunnel, large amounts of dust was being generated making it difficult to see and walk the conveyor. If you wanted to walk the conveyor while it was running, you would need to wear a dust mask and carry a strong flashlight.



Wash Box Installed



Water Spray Bar Cleaning the Belt

Solution

After surveying the conveyor with the plant engineer we decided to install an ASGCO® Wash Box system right past the head snub pulley. This location allows us to clean the belt right after the coal leaves the chute area. As the belt enters the wash box it first comes in contact with the first spray bar that sprays water onto the belt (the spray helps loosen the coal away from the belt) then the first ASGCO® Razor-Back™ with tungsten carbon blades scrapes the belt. The belt then sees a second spray bar and then another ASGCO® Razor-Back™ system, as the belt leaves the wash box there is a rubber squeegee that help take off any leftover water.



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Results

The ASGCO® Wash Box system has been in service for about 8 months and the customer is very pleased with the performance of the wash box, not only have we solved his carry back problem we have also solved his dust problem in the tunnel. You are now able to walk the conveyor while it is running not needing to wear a dust mask.