PROBLEM SOLVED™ PAPER

SOLUTION: Martin® ApronSeal™ Skirting

INDUSTRY: Coal-Fired Power

LOCATION: Platte Generating Station, Grand Island, NE

PROBLEM

Platte was experiencing failures of the rubber/fabric seals at the top of the chute wall on its train unload feeder.

Platte Generating Station (PGS), a coal-fired power plant located in Nebraska handling a volume of approximately 30,000 tons per month of PRB coal, was experiencing failures of the rubber/fabric seals at the top of the chute wall on its Train Unload Vibratory Feeder. Unable to handle the powerful vibration, the thin rubber seals allowed dust and fines to spill from the chute, creating a potential workplace hazard. Workers had to clean up at least once per month, and the spillage created a potential workplace hazard.

SOLUTION

Martin came up with an innovative solution and performed a custom installation of a Martin® ApronSeal™ Skirting.

Martin technicians inspected the issue and came up with an innovative solution. After removing the original seal, a highly experienced technician performed a custom installation of a Martin® ApronSeal™ Skirting on the chute wall. Designed originally for sealing the bottom of high volume conveyor chutes, the EPDM rubber composite skirt offers excellent rigidity and stands up well to constant vibration. Utilizing a specially engineered single strip unistrut system that holds the rubber composite strips firmly into place, the assembly facilitates replacement of the seal safely from outside the chute.

RESULTS

After a trial period running several tons of coal, the Martin® ApronSeal™ Skirting has yet to require replacement.

After a months-long trial period running several tons of coal, the Martin® ApronSeal™ Skirting has yet to require replacement. There has been a considerable reduction in spillage and maintenance labor. "The new Martin® ApronSeal™ Skirting holds up to the rigors of the vibratory feeder significantly better than any other type of seal we have tried," commented Ryan Schmitz, Production Engineer at PGS. Due to the rigidity and longevity of the Martin® ApronSeal™ Skirting experienced to date, and the associated reduction in airborne dust, plant managers have initiated the proposal process for another three units to be installed in other areas of the facility.

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