PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Air Supported Conveyor

INDUSTRY: Coal-Fired Power

LOCATION: State Line Power Station
Hammond, Indiana

Located on Lake Michigan near Chicago, State Line Power Station produces 515 MW of electricity from PRB Coal.

To improve its performance, the power plant converted the initial seventy feet (21 m) of the S-2 Conveyor to the Martin® Air Supported Conveyor System.

Following the success of the first retrofit, State Line Power Station converted three more conveyors to air-supported, including the SR-1 Conveyor (shown) that carries pulverized coal from the hammer mills to the boiler rooms.

PROBLEM

The S-2 Conveyor is 170 feet (52 m) long, but most of its problems—dust, spillage, maintenance expenses-- occur in the tunnel under the stockpile where the belt is loaded.

SOLUTION

Martin® Air Supported Conveyor

To reduce the problems from spillage and dust, the plant agreed to install 70 feet (21m) of Martin® Air Supported Conveyor on the structure, while retaining the conventional idlers for the conveyor's last 100 feet (31m) of transport into the plant. This partial retrofit reduces the cost of the upgrade, allowing the expense of the conversion to be budgeted as maintenance expense rather than as capital equipment.

RESULTS

Plant personnel noticed an immediate improvement after project completion. Instead of requiring cleanup every day, maintenance staff now visits the tunnel for a weekly cleaning. They consider that the conversion project "paid for itself" in three months through the reduction in cleanup expenses alone.

Following the success of the initial S-2 conveyor project, the State Line Power Station has converted three additional conveyors to Martin® Air Supported Conveyor.

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