PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Air Cannons

INDUSTRY: Bulk Transportation

LOCATION: Kanawha River Terminals (A Progress Energy Company)
Ceredo, West Virginia

Six stacker tubes at the Kanawha River Terminals are used in the stockpile area to allow storage of coal.

The Martin® Air Cannons were installed on the catwalk of the conveyors above the stacker tubes.

PROBLEM

At this rail-to-barge trans-loading facility on the Ohio River, a set of six stacker tubes connected by conveyors allows the stockpiling of coal. But coal would hang up inside the tubes, sticking to the walls, building up inside.

To clean coal out of the tubes, the operation resorted to manual labor. A man-lift would be used to raise personnel to the lowest window of a stacker tube, so they could dig out the accumulated coal. This proved expensive, as it consumed six to eight hours of labor, and it exposed personnel to a safety hazard working on the stockpiles and inside the tubes.

SOLUTION

Plant management want to remove the accumulated material and completely empty the stacker tubes. As a test, two Martin® Air Cannons were installed to clean out material from the Number 2 Stacker Tube.

The air cannons were installed on the catwalk of the tower. The discharge air from the air cannons is piped down more than 70 feet (21 m) to the top of the tube's lowest windows, to remove blockages from the discharge opening.

RESULTS

The first discharge of the air cannons on Stacker Tube #2 removed approximately 50 tons of coal built up inside.

The trial installation was so successful that within a week of the its completion, Kanawha River Terminal ordered ten more air cannons—two for each of the remaining five stacker tubes.

Martin® XHV Air Cannon Valve is protected by U.S. Patent No. 5,853,160.

Martin Engineering • One Martin Place • Neponset, IL 61345-9766 USA
Ph. 800-544-2947 • Fx. 800-814-1553 • info@martin-eng.com • www.martin-eng.com

Form P1155