

DusTreat* DC9102 Reduces Fugitive Dust and Operating Costs While Providing a Safer Work Environment

Background

A gypsum plant in Eastern Canada was using a water spray system to control fugitive dust within the crusher building and around the outside storage piles.

Problem

A wet spray system, installed by the plant at high cost, was operated for two years with marginal success. This system required high maintenance; as a result it was eventually abandoned. With no spray system in use, the plant experienced severe, dusty conditions in the crusher building and around the stockpiles. Material from the outside stockpiles is transferred by conveyor to rail cars. The loading of rail cars is controlled by photocells that position the cars for loading and then move the train forward when a car is full. Fugitive dust causes the cars to be overfilled or not filled at all. This results in production slowdowns.

Operators working in the crusher building complained of reduced visibility and discomfort because of dust inhalation. Also, housekeeping maintenance of dust piles within the building was constant and labor intensive.

The safety issues outside the building were also a major concern. The operator of the bulldozer that grades the stockpile often operated blindly as a result of the dust storm-like conditions in the area. This was a stressful situation for the operator as well as a safety concern for people walking near the stockpiles.

Solution

GE Water & Process Technologies conducted a series of trials using DusTreat DC9102. The Acufeed* Flow Proportioning Assembly and Remote Metering Module were used to provide consistent, high quality foam. Foam was sprayed into the throat of the secondary crushers.

Results

The application of DusTreat DC9102 positively impacted the entire material handling system. The following benefits were documented by plant personnel:

- Decreased manpower requirements (cleanup, maintenance)
- Improved worker health and working conditions
- Increased visibility
- Decreased production downtime

The plant now has a very reliable and effective dust control system.



Find a contact near you by
visiting gewater.com or
e-mailing custhelp@ge.com.

Global Headquarters
Trevose, PA
+1-215-355-3300

Americas
Watertown, MA
+1-617-926-2500

Europe/Middle East/Africa
Heverlee, Belgium
+32-16-40-20-00

Asia/Pacific
Shanghai, China
+86 (0) 411-8366-6489

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