

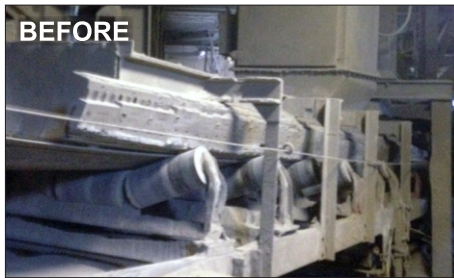
ASGCO's® Pro-Zone™ Solves Southeastern US Cement Plant's Wasteful Dust and Spillage Problem

Industry:	Cement Manufacturer Distribution Terminal Facility
Application:	Calcium sulphoaluminate cement powder
Product:	ASGCO®'s Pro-Zone™ Modular Conveyor Belt Load Zone System
Objective:	To design a new self-contained material load zone that would eliminate costly spillage and expensive clean up.

Challenge:

This customer receives barges several times a month, and sometimes more frequently depending on the demand. The raw material travels on top to feed the silos. This powder has extremely fine properties that were escaping and filling the structure surrounding the conveyor with thick dust and debris that would settle throughout the room, sometimes in upwards of several feet. The floor would become lined with this expensive material, that once exposed, became useless in the cement process.

The challenge was to eliminate the fugitive dust and spillage and the additional costs incurred for the time and effort taken in the removal of the material, plus any disposal fees. Access will also need to be provided to insure proper operation and allow for serviceability of the load zone.



Solution:

It was recommended that they install the Pro-Zone™ modular conveyor belt load zone system to optimize the air/dust sealing of the receiving conveyor belt. ASGCO® engineers worked closely with our trained servicing distributor and designed a specific, self-contained system based on the parameters of this particular conveyor. Belt speed, material weight, size and air flow, were among the many factors that were taken into consideration when designing the system. CEMA design standards of 20° transition idlers before and 35° troughing idlers after the Pro-Zone™ were also addressed. The Pro-Zone™ was designed around the existing chute and dust collection system. It creates a sealed belt support system with quick access for monitoring and easy adjustments. The placement of the new custom designed baffles and expansion pieces tied the new load zone system all together.

Results:

The powdered material no longer plumes into the room. The workers used to kick up this material and breathe the fugitive dust, just to provide basic maintenance. So the improved efficiency has also lifted the morale of the maintenance staff as well. The cost of removing the wasted product has been virtually eliminated by the cement facility. The ASGCO® Pro-Zone™ System removed a costly obstacle in the company's procedure and has allowed for greatly increased production throughout.