



PROBLEM SOLVED™ PAPER

SOLUTION: Walk the Belt™, Martin® ApronSeal™ Skirting, Air Cleaner, Surfactant Dust System

INDUSTRY: Aggregate

LOCATION: Quarry in Iowa, USA

PROBLEM

A quarry in Iowa was having trouble with fugitive dust. The Health Department was notified of severe dust being blown across the highway into the residential neighborhood. The Health Department set up a dust trailer to measure the dust particles near the residential neighborhood and findings revealed the dust exceeded code requirements.

Martin was contacted to help them with their dust issues. Martin scheduled a Walk the Belt™ inspection to see how to solve their problem of dust control. Martin recommended a 3 stage process to help them comply with fugitive dust escaping the quarry during operation.



A Walk the Belt™ inspection from Martin helped solve dust problems for a quarry in Iowa.



The Air Cleaner is installed above the transfer to capture airborne dust, collecting particles and returning to cargo.



Martin® ApronSeal™ Skirting is a dual sealing system that prevents spillage without requiring service to maintain.

SOLUTION

Stage 1 began with upgrading the transfer point impact belt, which was one of their worst offenders. Martin installed a Martin® Air Cleaner. Then Martin upgraded the transfer point below the crusher by sealing the load zone with Martin® ApronSeal™ Skirting. A Martin® Surfactant Dust System was installed on the crusher dump pocket and feed belt. Martin then sealed the dump pocket with belting to prevent wind from blowing dust while trucks were dumping loads of rock into the crusher.

Stage 2 included installing a Martin® Air Cleaner on top of the upgraded transfer point capturing fugitive dust from escaping, which was a major cause of dust being blown into the residential neighborhood.

Stage 3 involved installing an additional Martin® Surfactant Dust System on the crusher to complete the dust control management efforts.

RESULTS

After completing the installation of all 3 stages, a meeting was scheduled with the Health Department for a final inspection. Martin walked the health inspector thru the 3 stage process. The Health Inspector stated, "This quarry has gone above and beyond the code requirements for dust control. This is awesome. We will be back in one year for another inspection."

The quarry did take other actions to comply with the complaint by replacing the gravel drive into the plant with black top, and spreading recycled asphalt on the roads throughout the quarry to prevent dust being kicked up by truck traffic.