



# PROBLEM SOLVED™ PAPER

**SOLUTION:** Martin® ApronSeal™ Skirting, Martin® Slider Cradle, Martin® Impact Cradle, Martin® Dust Bag

**INDUSTRY:** Mining - Coal

**LOCATION:** Yanzhou Dongtan Coal Plant in Eastern China

## PROBLEM

The Yanzhou Dongtan coal plant in Eastern China had spillage and dust issues at two conveyor transfer points, because material was loaded onto the 40 in. (1000 mm) wide belts traveling 500 fpm (2.56 m/s) with little control over impact or settling. The result was excessive fugitive dust from belt #111 throughout the facility. Inadequate chute control on belt #185 caused spillage to get caught between the belt and rubber tail pulley, damaging both. Repeated downtime and increased labor costs for these issues seriously impacted plant production.



*The Yanzhou Dongtan coal plant had spillage and dust issues, causing repeated downtime and increased labor cost.*

## SOLUTION

After an on-site inspection, MartinPLUS® Technicians installed transfer point solutions addressing both conveyors' unique issues. On #111, a 16.5-foot (5 m) transfer chute distributed material into a 40-foot (12 m) long sealed stilling zone equipped with a full-length Martin® ApronSeal™ Skirting and a series of Martin® Slider Cradles. The 85-foot (26 m) chute on belt #185 required a Martin® Impact Cradle, Martin® ApronSeal Skirting™ and Martin® Slider Cradle support down the entire length. Both chutes featured a Martin® Dust Bag.



*MartinPLUS® Technicians installed transfer point solutions to address the problems.*

## RESULTS

Since the installation was completed, visible dust within the facility has been drastically reduced. Respirable dust has been measured at less than 3.5 mg/m<sup>3</sup>, and total dust is down to 10 mg/m<sup>3</sup>. Operators report that onsite safety and the overall work environment have improved and that the significant drop in equipment failure rates has substantially increased plant productivity.



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