



Load Zone Upgrade

Eliminated Material Spillage

PROBLEM SUMMARY

A coal plant in Colorado faced significant challenges with its conveyor system, particularly concerning material spillage, belt misalignment, and maintenance difficulties.

The plant had three loading points feeding a single 36-inch conveyor belt, transporting coal from an above-ground pile to silos. The main conveyor line experienced severe offside loading from all three points, causing the belts to frequently misalign. An outdated, non-functional skirting system exacerbated the issue, causing significant material spillage, increased housekeeping efforts, and maintenance headaches.

BENETECH SOLUTION

Benetech leveraged its industry-leading technology and expertise to execute a comprehensive solution for the plant, focusing on enhancing efficiency, reliability, and performance.

The MaxZone Plus® system was installed to direct material to the belt's center, ensuring even distribution and reducing spillage. Its modular design allows for easy installation and maintenance. The Skirtboard system, with high-abrasion liners, protects against wear, while the XN Liners guide material smoothly onto the belt, reducing misalignment. Additionally, B Plus skirt rubber was used for its durability and effectiveness, further enhancing the system's performance. Finally, a thorough cleanup of the plant, addressing the accumulated spillage and improving overall safety and cleanliness, was conducted.

Benetech products included, but were not limited to:

- 1. MaxZone Plus® Load Zone System** — A system that acts as a modified load zone chute that increases capacity and throughput levels while center loading the conveyor system to avoid belt misalignment and to further reduce dust and spillage at the load zone.
- 2. MaxZone® Skirtboard System** — Designed to contain dust and spillage up to 85%.



BEFORE



AFTER

IT PAYS TO IMPLEMENT BENETECH SOLUTIONS

- Eliminated severe belt mistracking
- Significantly improved material flow
- Eliminated material spillage
- Decreased clean-up time and cost
- Reduced safety hazards
- Reduced Plant Risk Profile based on excessive spillage and dust

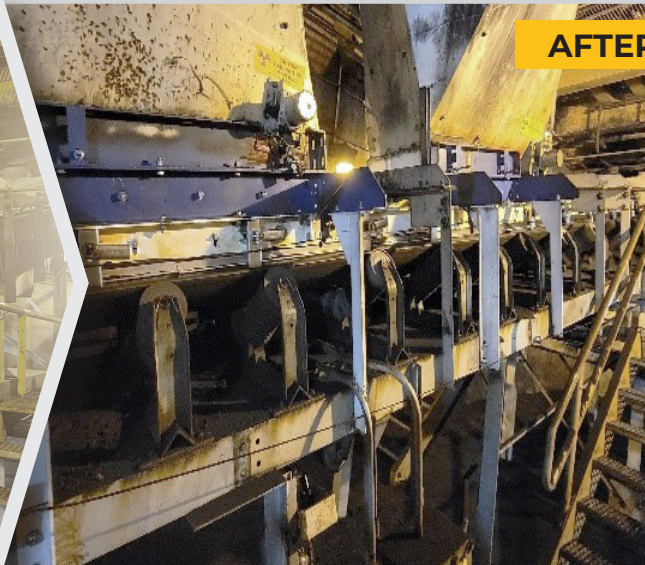
SUCCESSFUL RESULTS

Benetech implemented a comprehensive solution that addressed the material handling and spillage issues, resulting in a remarkable turnaround for the plant. They not only improved the system's efficiency and reliability but also conducted a thorough cleanup to address the spillage and housekeeping issues. The new load zone and skirtboard systems significantly improved the ease of maintenance and allowed the plant to control the material flow impacting the belt, in turn, significantly reducing dust and eliminating spillage. The plant expressed high satisfaction with the enhanced system's performance and the reduction in maintenance challenges.

BEFORE



AFTER



BEFORE



AFTER

