COAL

SUCCESSSTORIES

Custom Transfer Chute System Improves Material Handling Operations

PROBLEM SUMMARY

At a coal plant in Michigan, a dust collector bin fed coal to two feeders. However, with the impending closure of one of the plants supplied by these feeders, that feeder could no longer receive coal.

This presented a significant challenge as the plant needed to continue coal transfer operations efficiently while discontinuing the coal supply to the first feeder. The plant required a solution to modify the coal transfer system to adapt to this new operational scenario while maintaining safety and efficiency.

BENETECH SOLUTION

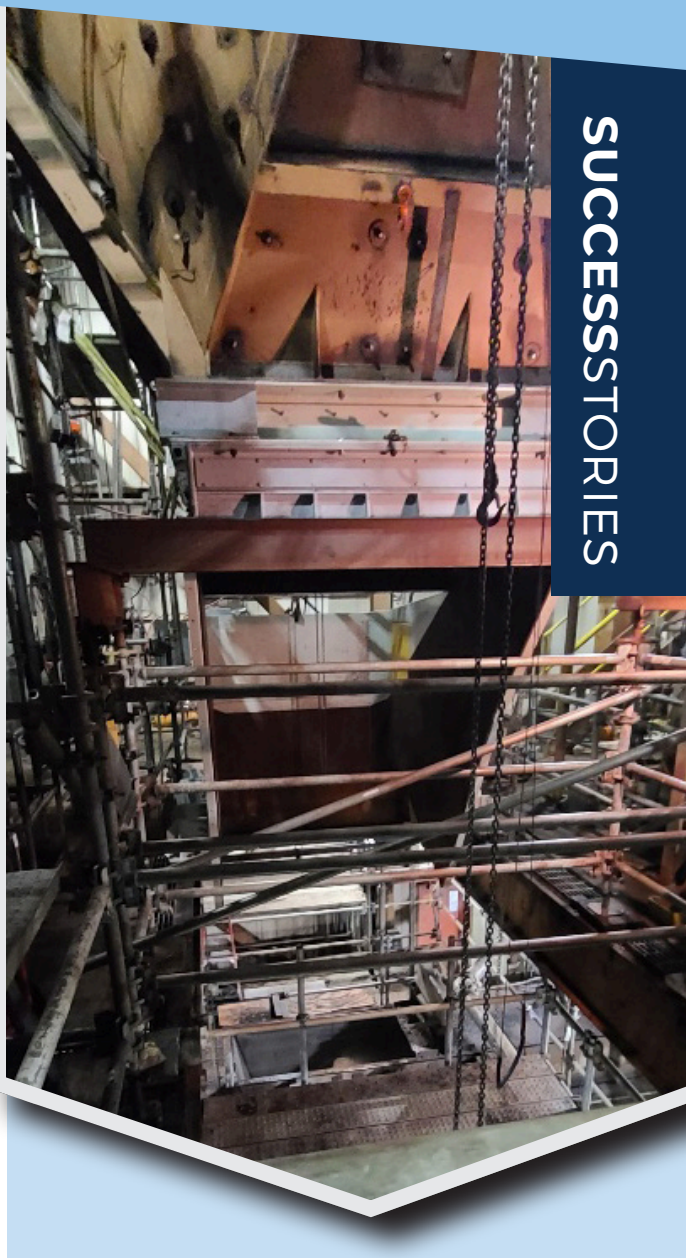
Benetech engineered a fully customized transfer chute system to enhance coal flow management, durability, and safety at the coal plant. This system included three main components: the Bin Isolation Slide Gate, the Advanced Flow Transition and Transfer Chute, and the Advanced Flow Loading Chute, built similarly to manage smooth coal handling and minimize dust, with inspection doors for easy maintenance access.

The inspection doors on the Advanced Flow Loading Chute allow for quick, routine maintenance and inspections, which enhance the system's longevity and reliability by making essential components more accessible.

Together, these components addressed the plant's operational needs efficiently and effectively.

Benetech products included, but were not limited to:

1. **Bin Isolation Slide Gate -** Made from durable carbon steel and lined with corrosion-resistant Duracorr 300, was installed with an electric actuator for reliable, smooth operation and coated with epoxy for long-term protection.
2. **Advanced Flow Transition and Transfer Chute -** A ¼" A36 steel transfer chute with ½" Duracorr 300 liners in high-



IT PAYS TO IMPLEMENT BENETECH SOLUTIONS

- Reduced plant risk profile by eliminating unused coal feed paths
- Improved system capacity and durability with engineered chute enhancements
- Streamlined maintenance with accessible inspection doors
- Improved dust mitigation, leading to better air quality and lowered health risks

impact areas for improved coal flow and durability, securely connected to the bin slide gate.

3. **Advanced Flow Loading Chute - T**he ¼" A36 steel flow loading chute, lined with ½" Duracorr 300 in impact areas, ensured smooth coal handling and reduced dust, with inspection doors added for easy maintenance.

SUCCESSFUL RESULTS

Benetech's engineered transfer chute system successfully resolved the plant's challenge of closing off the pantleg that fed coal to the closing plant. By doing so, they ensured that retired feeder could no longer receive coal while simultaneously providing a robust system that enhanced coal flow control.

The new transfer chute system not only achieved the plant's operational goals but also significantly improved dust mitigation, leading to a safer and cleaner work environment. The custom-engineered solution allowed the plant to adapt to the closure of the plant while maintaining efficient coal handling operations.