1-On-2 Handling Powder River Basin Coal

Industry
Coal-Fired Electric Power

Application
A new feed belt from the coal yard was added and material from this belt had to be accurately split between two smaller plant feed belts.

Material
Powder River Basin Coal

Objective
- Accurate splitting of the feed belt discharge between the two receiving belts
- Improve housekeeping and safety by reducing material spillage
- Reduce dust generation

Transfer Detail
Feed belt is a 60” wide 2,200 tph system dropping about 25 feet to parallel 42” wide belts rated at 1,100 tph each.

Challenge
The new chute work at a coal-fired electric power plant had to fit within the existing building and other chute work while providing an accurate split between two receiving conveyors. The diverter needed to provide operational flexibility to feed either plant feed belt individually or to dynamically split the feed to both plant feed belts to maximize material feed rate from the new 60” belt. Housekeeping and dust mitigation were also major concerns.

Flexco Solution
Flexco designed and fabricated a 1-on-2 Transfer Chute with Tasman Warajay Technology™ which included removable chrome carbide overlay wear liners to handle the abrasive wear of the coal.

The new Flexco Transfer Chute provides the operational flexibility the plant was looking for to allow them to run coal to either plant feed belt individually or to feed both simultaneously.

Result
This system has been in operation for several years with no maintenance required on the liners. The bucket diverter has provided accurate splitting and flexibility to the system. There are no moving parts in the coal stream. They are spending minimal time maintaining the new system and cleaning up spilled material around it. The new system provides for efficient and cost effective operations.