CORA TERMINAL COAL STORAGE AND RECLAIM

PROJECT: Coal Storage and Reclaim System Expansion

LOCATION: Rockwood, IL

CLIENT: Kinder Morgan - Cora Terminal

SERVICES: Multidiscipline Engineering, Foundation Design, Technical Evaluation and Drawing Review

DESCRIPTION

PRB Coal was being stockpiled via a radial stacker close to the existing transfer tower 4. The existing radial stacker provided inadequate storage capacity for the terminal's future needs. The project involved replacing the existing radial stacking system with a new system located within the existing rail loop in an unutilized area of the facility.

The existing diverter gate was designed to divert coal through a new chute to a new conveyor to deliver coal at 4,000 tph to the yard and transfer the material to a new radial stacker, which forms a kidney shaped stockpile.

Stockpiled coal is reclaimed with bulldozers through any of six hydraulic diverter gates that minimize the pushing distance for the dozers. The hydraulic diverter gates discharge coal to reclaim conveyor inside the new 12' tall x 15'-8"wide x 637' long reinforced concrete tunnel. The reclaim conveyor is designed to convey the coal at a capacity of 6,000 tph to an existing conveyor.

Other improvements included an earthen containment berm, escape tunnel, escape tunnel access structure, site grading, and drainage improvements. The project significantly expanded the storage capacity of the terminal, which provided greater material handling flexibility for the facility.

PRINCIPAL FEATURES

- Worked with the client to provide significant storage expansion and material handling flexibility
- New conveyor with transfer rates at 4,000 tph
- New radial stacker
- New reinforced concrete reclaim tunnel
- New reclaim conveyor with transfer rates at 6,000 tph
- Technical bid evaluation and shop drawing review
- Mechanical, structural, civil and foundation design