

Racine Lock and Dam

Ohio/West Virginia border



HISTORY

Located 238 miles downstream of Pittsburgh, the Racine Lock and Dam is the 9th lock and dam on the Ohio River. There are two locks in this location, one for commercial barge traffic and another, the auxiliary lock, which is about half the size of the larger lock, at 600 feet.

The American Electric Power company owns and operates a hydroelectric generating plant on the Ohio River abutment of the Racine Dam.

PROBLEM

One of the cells between the dam and the hydroelectric plant was failing and a new, permanent structure needed to be built around the failing cell in order to protect the integrity of the entire structure.

SOLUTION

The Beaver Excavating Company was contracted to build an access ramp and a new permanent structure for the American Electric Power Company hydroelectric plant project. Beaver

turned to Nucor Skyline, as their project partner, to get the job done. Nucor Skyline supplied a number of products for this project, including NZ 26 sheet pile, H-piles, ERW, spiralweld and rolled and welded pipes, as well as wide flange beams, threaded bars, and walers.

However, the biggest impact that Nucor Skyline had on the project was their engineering assistance. Skyline's engineering department produced numerous drawings for the project, and were there every step of the way, revising drawings as needed. Skyline Engineering has years of experience in helping customers find the best solution for their problems, and because of this, they were able to suggest the NZ 26 sheet pile and save Beaver Excavating time and money on the project.

NZ 26 sheet pile has a Larssen interlock, considered to be the most watertight connection available in the market today. To increase the non-permeability of the interlocks, a waterproof sealant, called Steelant, was applied to the interlock of the sheets.

PROJECT PARTNERS

Owner

American Electric Power Company – Columbus, OH

General Contractor

Beaver Excavating Company – Canton, OH

PRODUCTS

Sheet Piles: NZ 26 sheet pile

H-piles: HP 10 x 57, HP 12 x 53, HP 14 x 102, HP 14 x 117

Wide flange: W 24 x 55, W 27 x 84, W 24 x 117, W 36 x 135

Pipe: ERW, spiralweld, and rolled and welded: 24", 60", and 72" OD and 54" and 66" ID

Misc: Threaded bars and Walers

PROJECT TIME FRAME

June 2017 through 2018