



PROJECT PROFILE

Port Jefferson Generating Station

Structural Repair of Wharf Structure | Port Jefferson, NY



CLIENT

National Grid
Pullman SST, Inc.

BACKGROUND

The fuel unloading wharf at the National Grid-owned Port Jefferson Generating Station is an open-air wharf constructed of a reinforced concrete deck supported by reinforced concrete beams and girders on conventionally reinforced precast concrete piles. The original tee wharf was constructed in 1947, while an extension of the existing wharf and construction of a new reinforced concrete catwalk were completed in 1958. Construction of the addition is the same as the original wharf; however, the piles were changed to precast, prestressed concrete piles.

WJE collaborated with Pullman SST, Inc., and the National Grid to perform a condition assessment of the fuel unloading wharf in early 2017. We issued a report of findings and prioritization of repairs, which were to be completed in two phases. In addition, we performed construction period services during the phased repair implementation.



SOLUTION

WJE developed repair documents following an extensive condition survey consisting of inspection, nondestructive testing, and laboratory testing. The phase I repairs consisted of installing cathodic protection "life jackets" to deteriorated piles. The Phase II repairs included jacketing additional piles, as well as repairing 400 feet of concrete girders and 300 feet of concrete beams.

During the construction phase, we were retained to perform construction period services during the phased repair implementation. We visited the site regularly to review supplemental rebar installation and rebar section loss, the extent of demolition, rebar repairs, and surface preparation prior to the installation of forms at girders and beams. We also reviewed the installation of the pile jackets and reviewed concrete test data. Following completion of the project, we performed and issued a punch list and assisted the owner with close-out of the project.