

## Process Plant Demolition

### SOUTHERN NUCLEAR POWER PLANTS VOGTLE & HATCH

Waynesboro & Baxley, Georgia

Southern Nuclear Company (a division of Southern Company) had to replace the aging wastewater treatment plants at its two Georgia-based nuclear power plants. The existing plants had been installed at the time of plant construction and were approximately 30 years old. The plants were comprised of pre-fabricated steel units that had been expanded over the years but could no longer provide reliable service for the company. O'Brien & Gere teamed with SBX to remove and replace the existing plants. The challenge at both facilities was that a portion of the plant must remain in service during the initial demolition and new plant construction phases to provide continued service to the plant. To accomplish this, extensive utility locates and potholing was completed to verify active systems prior to excavation activities. In addition, lead based paint had to be removed from the steel in areas where cutting torches would be used to dismantle the steel.



Space requirements were critical to allow the installation of the new treatment plants. At Plant Vogtle, the chlorinator basin and inlet piping could remain in service while two of the three units were removed. While excavating around the treatment units it was discovered that the tanks had been backfilled with a low strength concrete grout. SBX brought in the additional heavy equipment necessary to remove the units while maintaining the original schedule for the completion of the demolition work.

At Plant Hatch, SBX had to reroute the plant inlet piping and install a temporary chlorinator prior to the initial demolition of the units due to limited space constraints.

A second major challenge for the project was to remove the remaining portion of the plant without disrupting plant operations. The working area was very limited in the second phase of the demolition work due to the size of the newly installed units. SBX implemented demolition techniques that contained the disturbed area within the footprint of the remaining unit. Based on the thoroughness of the front end utility investigations and the careful attention to the new operating plant requirements, there were no disruptions to plant operations. Despite the numerous regulations and requirements necessary at nuclear facilities and some unforeseen site conditions, SBX completed both projects within our scheduled durations. Despite the tight site conditions with heavy equipment and hot work demolition, the project was completed with zero accidents, near misses or safety incidents.

