

Nuclear Power Plant Decommissioning

Plant: San Onofre Unit #1
Project: Large Component Removal
Unit: Unit #1
Location: San Clemente, CA
Owner: Southern California Edison
Contractor: Bechtel Power Corporation
Year: 2001-2003

Scope:

Bigge Power Constructors, as subcontractor to Bechtel Power, performed the following nuclear power plant steam system decommissioning work involving heavy lift and heavy transportation.

- Engineered unique solutions to the lifts and transportation
- Installed specialized Bigge rigging in containment
- Utilized a Lampson Transi-Lift, LT-1200 crane (1,200 tons capacity)
- Lifted and removed three 218-ton steam generators from containment
- Lifted and removed Pressurizer from containment
- Lifted and removed 700 ton Reactor Pressure Vessel (RPV) from containment
- Transportation of Pressurizer and SG's by platform trailer
- Prepared a comprehensive transportation plan for the RPV, involving 18 miles of land transportation over state and federal property, plus water transport to Barnwell, SC

Job Challenges:

Bigge Constructors successfully dealt with the following challenges on this project.

- Handling of three SG's, Pressurizer and RPV, a total of approximately 1,500 tons
- Engineering unique solution to removal of the components. Unique method adopted was the lifting of each through openings in containment roof
- Furnishing specialized equipment for lifting and rigging
- Transportation of RPV planned for a three-file, 18-axle line Scheuerle platform trailer over 18 miles of highway and beach.
- Transportation on nine miles of state and federal (Camp Pendleton) beaches using ¼ mile of interlocking fiberglass matting to leapfrog in front of the load
- Live loading the barge at Camp Pendleton
- Permitting of the RPV transportation among all agencies
- (Note: Transport of RPV was cancelled due by SCE senior management)



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