

Nuclear
Decommissioning:
San Onofre Unit One
Sphere Enclosure
Building

LOCATION
San Clemente, CA

CUSTOMER
Southern California
Edison

DESCRIPTION
Controlled
demolition of
reactor sphere
enclosure wall.



SUMMARY/SCOPE

Segmentation of the top fifty feet of one hundred and fifteen feet tall wall, three feet thick, in seismically sensitive, operating nuclear environment.

TECHNICAL PARAMETERS

Developed and implemented a controlled demolition plan within seismic, vibration, dust/slurry control, crane capacity and utilization, constraints, in close proximity to fuel pool.

SAFETY/HAZARD ANALYSIS

The integrity of the spent fuel pool and protecting operating plant infrastructure drove access, platform, diamond wire cutting, and rigging plans. Combining the safety provided by the enclosed moveable platform with its utility as a water/slurry control station, personnel safety and plant requirements for slurry control, seismic restraints, rigging, and diamond wire cutting access, from single side of wall, were neatly achieved.

PROCESS

Horizontal and vertical cut lines were laid out. Diamond wire access and rigging holes were core drilled through three feet wall off of elevated platforms. Power units were deployed on dome roof with remote control panels and diamond wire saws on elevated platforms which doubled as slurry/water control collection stations. Diamond wire sawing progression was controlled by elevation, seismic considerations and crane utilization with all blocks either rigged or anchored prior to final segmentation, and then drifted away from spent fuel pool. In total two hundred and eighty five blocks (eight feet by five feet by three feet) were removed and over twelve thousand square feet of diamond wire sawing was completed on schedule.