



PROJECT TITLE: Consolidated Refueling Facility (Building 1841)
CONTRACT NO.: POP-1129-R
LOCATION: Northrop Grumman Newport News, Newport News, Virginia
AWARD DATE: April 1995 **COMPLETION DATE:** February 1997
FINAL VALUE: ☐ \$0-1 Mil ☐ \$1-5 Mil ☐ \$5-10 Mil ☒ \$10-20 Mil
☐ \$20-30 Mil ☐ \$30-40 Mil ☐ \$40-50 Mil ☐ \$50+ Mil
TYPE OF CONTRACT: ☒ Fixed Price ☐ Cost Reimbursable

PROJECT DESCRIPTION:

The Consolidated Refueling Facility was designed and built by Northrop Grumman Newport News Shipbuilding for refueling nuclear government vessels. Prior to beginning the new building, W. F. Magann Corporation performed the demolition of the existing buildings on ground that was largely fill and unsuitable for the new structure. After the demolition and removal of the buildings, we began the site preparation which included the installation of 559 concrete piles ranging from 30 feet to 102 feet long.



Construction of the building foundation

The seven story building included the construction of one pit measuring 36' x 46' x 29' deep and another pit measuring 50' x 41' x 19' deep. Both pits required sheeting, wale system, and dewatering. Due to the sensitive and dangerous possibility of a nuclear spill, the pit walls were coated with a specialized waterproofing to prevent a possible nuclear spill from penetrating the walls and seeping into the existing ground water. The building measured 295' x 197' with a high bay and low bay area including a five-story office and equipment control area. The new building was across the street from Dry Dock 11, where the aircraft carrier Eisenhower was in for an overhaul that caused congestion in an already busy location. Traffic control and coordination of material deliveries for our project; as well as, the carrier, was done on a daily basis resulting in no interruption of services or deliveries for both parties. More than 6,000 cubic yards of concrete was placed for the foundations, walls, and slabs on this project. Over thirty subcontractors were utilized, specializing in bentonite waterproofing, stainless steel floor and wall plates, epoxy interior finishes, HEPA filtration systems, independent air handling systems to maintain negative pressures in the high bay area, and specialized switchgear and controls for the mechanical apparatus. All work was accomplished under strict guidelines established by the Nuclear Regulatory Commission.



W. F. Magann Corporation performed the demolition, site preparation, pile driving, excavation, backfill, sheet pile installation, dewatering, and concrete work.



Interior view – Equipment testing



Exterior View – Installation of siding