

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Design Features

5.4 NEW AND SPENT FUEL STORAGE FACILITIES

Specification

5.4.1 New Fuel Inspection and Temporary Storage Rack

A. New fuel shall be removed from the shipping containers, inspected and temporarily stored in the new fuel storage rack or stored in the pool. The dry storage rack is located on the operating floor and consists of two parallel modules containing ten spaces each on 21-1/8 inch centers. This spacing is sufficient to maintain  $K_{eff}$  less than 0.92 when flooded with unborated water, based on a fuel enrichment of 4.0 weight percent  $U^{235}$ . If the fuel assemblies have been stored in the dry storage rack, after inspection they may be moved to the new fuel elevator and lowered to the floor of the spent fuel storage pool, one at a time. (1)

B. New fuel may also be stored in their shipping containers.

5.4.2 New and Spent Fuel Storage Racks and Failed Fuel Storage Container Rack

New fuel while awaiting transfer to the Reactor Building and irradiated or failed fuel prior to off-site shipment will be stored in the stainless steel lined pool. The spent fuel pool is sized to accommodate 1080 fuel assemblies including 4 assemblies in failed fuel containers. During refueling, the borated fuel pool water will have a minimum concentration of 1800 ppm.

The pool has the capability of storing new and spent fuel assemblies in eleven free-standing stainless steel rack modules and four failed fuel assemblies in a special rack module. All assemblies are on nominal 10.5 inch centers in both directions. This spacing with the neutron absorber material is sufficient to maintain  $K_{eff}$  less than 0.95 when flooded with unborated water, based on a fuel enrichment of 4.0 weight percent.

5.4.3 New and Spent Fuel Temporary Storage

The Reactor Building has one single row stainless steel storage rack in the deep portion of the refueling canal. This rack is designed to hold six assemblies and one failed fuel detection can, all on 21-1/8 inch centers.

5.4.4 Spent Fuel Pool and Storage Rack Design

The spent fuel pool and all storage racks are designed for the design base earthquake.

REFERENCE

(1) FSAR subsection 9.8

8210190598 820928  
PDR ADOCK 05000312  
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# ATTACHMENT