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5.5 Storage of Unirradiated and Spent Fuel

Unirradiated fuel assemblies will normally be stored in critically safe new fuel storage racks in the reactor building storage vault. Even when flooded with water, the resultant k_{eff} is less than 0.95. Fresh fuel may also be stored in shipping containers. The unirradiated fuel storage vault is designed and shall be maintained with a storage capacity limited to no more than 200 fuel assemblies.

The spent fuel storage facility is designed to maintain fuel in a geometry such that k_{eff} is less than 0.95 under conditions of optimum water moderation. The spent fuel storage facility is designed and shall be maintained with a storage capacity limited to no more than 2776 fuel assemblies. Fuel assemblies stored in the 1066 spent fuel storage locations of the non-poison flux trap design are limited to 15.6 grams (3.0 weight percent) of Uranium-235 per axial centimeters of assembly. Fuel assemblies stored in the 1,710 spent fuel storage positions of the poison type which use Boraflex as the neutron absorber are limited to 18.13 grams (3.75 weight percent) of Uranium-235 per axial centimeters of assembly.

Calculations for k_{eff} values have been based on methods approved by the Nuclear Regulatory Commission covering special arrays (10CFR70.55).

5.6 Seismic Design

The reactor building and all contained engineered safeguards are designed for the maximum credible earthquake ground motion with an acceleration of 11 percent of gravity. Dynamic analysis was used to determine the earthquake acceleration, applicable to the various elevations in the reactor building.

