- The rack-to-rack gap between the existing VYNPS racks was assumed to be 1 inch for the evaluation of the lateral rack movement accident. This value is smaller than the minimum rack-to-rack gap of 2 inches permitted under the previous rerack project.

- Conservatively, uniform average enrichments were used for all fuel pins in a fuel assembly instead of distributed enrichments.

The BWR spent fuel storage racks are designed to accommodate any and all of the fuel assemblies listed in Table 4.3.1 with a maximum planar average enrichment of 4.6 wt.% ^{235}U. Each fuel assembly type was analyzed independently to determine its acceptability in the rack.

4.2 Summary of Criticality Analyses

4.2.1 Normal Operating Conditions

All BWR fuel assembly types being considered were explicitly analyzed to determine the acceptability for storage in the spent fuel pool. A maximum average enrichment was assumed for all rods in the assembly and no credit was taken for gadolinia which might be present.

The criticality safety was evaluated at the burnup corresponding to a k_{inf} of 1.33 in the Standard Cold Core Geometry (SCCG). SCCG is defined as an infinite array of fuel assemblies on a 6-inch lattice spacing at 20°C, without any control absorber or voids.

The maximum k_{inf} in the new Holtec BWR storage rack module was determined to be 0.9280 (95% probability at the 95% confidence level) including all known calculational and manufacturing uncertainties. The maximum k_{inf} in the existing VYNPS BWR storage rack modules was determined to be 0.9469 (95% probability at the 95% confidence level) including all known calculational and manufacturing uncertainties. [redacted]

R 1

R 1