

15.5.4 FUEL STORAGE

Applicability

Applies to the capacity and storage arrays of new and spent fuel.

Objective

To define those aspects of fuel storage relating to prevention of criticality in fuel storage areas.

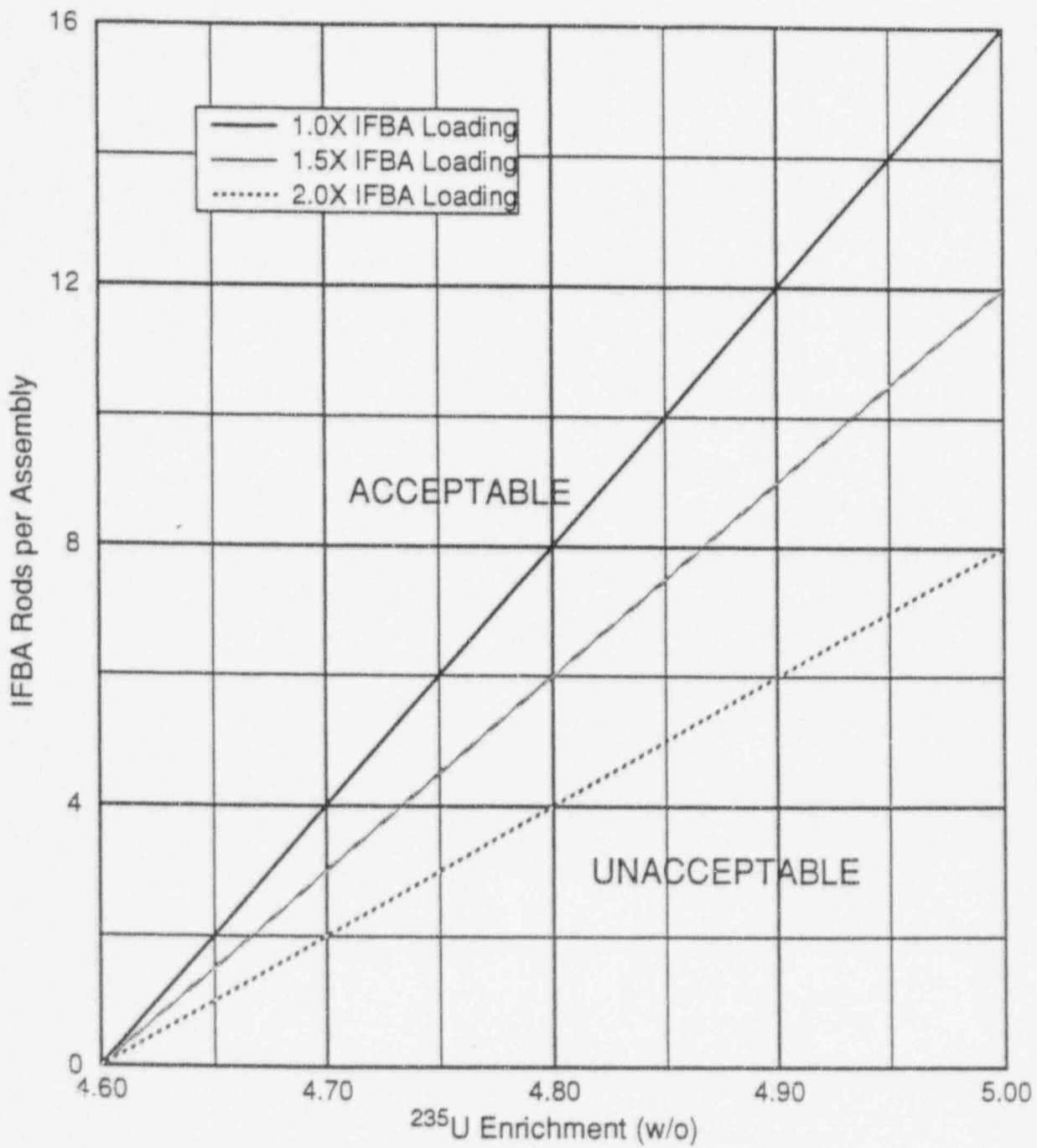
Specification

1. The new fuel storage and spent fuel pool structures are designed to withstand the anticipated earthquake loadings as Class I structures. The spent fuel pool has a stainless steel liner to ensure against loss of water.
2. The new and spent fuel storage racks are designed so that it is impossible to store assemblies in other than the prescribed storage locations. The fuel is stored vertically in an array with sufficient center-to-center distance between assemblies to assure $K_{eff} < 0.95$ with the storage pool filled with unborated water and with the fuel loading in the assemblies limited to ~~44.8 grams of U-235 per axial centimeter of standard fuel assembly and 46.8 grams of U-235 per axial centimeter of OFA fuel assembly~~ 5.0 w/o U-235 with or without axial blanket loadings. Each assembly with a fuel loading greater than 4.6 w/o U-235 must contain Integral Fuel Burnable Absorber (IFBA) rods in accordance with Figure 15.5.4-1 or have a reference infinite multiplication factor, K_{∞} , less than or equal to 1.49364, which includes a 1% ΔK reactivity bias. An inspection area shall allow rotation of fuel assemblies for visual inspection, but shall not be used for storage.
3. The spent fuel storage pool shall be filled with borated water at a concentration of at least 1800 ppm boron whenever there are spent fuel assemblies in the storage pool.
4. Except for the two storage locations adjacent to the designated slot for the spent fuel storage rack neutron absorbing material surveillance specimen irradiation, spent fuel assembly storage locations immediately adjacent to the spent fuel pool perimeter or divider walls shall not be occupied by fuel assemblies which have been subcritical for less than one year.

9701280274 970124
PDR ADOCK 05000266
P PDR

Figure 15.5.4-1

Fuel Assembly IFBA Requirements



Note: 1.0X, 1.5X, and 2.0X IFBA rods have nominal poison material loadings of 1.67, 2.50, and 3.34 milligrams B-10 per inch, respectively.