5.6 FUEL STORAGE

R171

each other and from the inner Region 3 cells by at least one (1) Region 2 spent fuel assembly (i.e., fuel of 50 MWD/KgU burnup or equivalent).

2. Region 1 fuel assemblies located along the wide water-gaps** between storage modules must be isolated from each other and from the inner Region 3 cells by at least one (1) Region 2 spent fuel assembly (i.e., fuel of 50 MWD/KgU assembly average burnup or equivalent).

3. Region 1 fuel assemblies located along the narrow water-gaps** between storage modules must be isolated from each other by at least two (2) Region 2 spent fuel assemblies and from the inner Region 3 cells by at least one (1) Region 2 spent fuel assembly (i.e., fuel of 50 MWD/KgU assembly average burnup or equivalent).

4. A checkerboard pattern of fresh fuel and empty cells may be used throughout any storage module, or internal to any storage module in lieu of Region 3 fuel as shown in Figure 5.6-2.

Figure 5.6-1 shows a typical arrangement of regions. Figure 5.6-2 illustrates internal module checkerboarding of fresh fuel with empty cells in a portion of the fuel pool. Figure 5.6-3 illustrates the two burnup-enrichment equations (5.6.1.1.c.2 and 5.6.1.1.c.3) in graphical form.

e. Only spent fuel meeting the Region 3 burnup requirements shall be stored in any module in the cask loading area of the cask pit.

CRITICALITY - NEW FUEL

5.6.1.2 The new fuel pit storage racks are designed for fuel enriched to 5.0 weight percent U-235 and shall be maintained with the arrangement of 146 storage locations shown in Figure 5.6-4. The cells shown as empty cells in Figure 5.6-4 shall have physical barriers installed to ensure that inadvertent loading of fuel assemblies into these locations does not occur. This configuration ensures k_{eff} will remain less than or equal to 0.95 when flooded with unborated water and less than or equal to 0.98 under optimum moderation conditions.

R229

DRAINAGE

5.6.2 The spent fuel pit is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 722 ft.

**The nominal gap (2-1/8 inches) running in the E-W direction between the adjacent modules is referred to as the "wide gap." The N-S direction gap (1.5 inch) is referred to as the "narrow gap."

5.6 FUEL STORAGE

R216

each other and from the inner Region 3 cells by at least one (1) Region 2 spent fuel assembly (i.e., fuel of 50 MWD/KgU burnup or equivalent).

2. Region 1 fuel assemblies located along the wide water-gaps** between storage modules must be isolated from each other and from the inner Region 3 cells by at least one (1) Region 2 spent fuel assembly (i.e., fuel of 50 MWD/KgU assembly average burnup or equivalent).

3. Region 1 fuel assemblies located along the narrow water-gaps** between storage modules must be isolated from each other by at least two (2) Region 2 spent fuel assemblies and from the inner Region 3 cells by at least one (1) Region 2 spent fuel assembly (i.e., fuel of 50 MWD/KgU assembly average burnup or equivalent).

4. A checkerboard pattern of fresh fuel and empty cells may be used throughout any storage module, or internal to any storage module in lieu of Region 3 fuel as shown in Figure 5.6-2.

Figure 5.6-1 shows a typical arrangement of regions. Figure 5.6-2 illustrates internal module checkerboarding of fresh fuel with empty cells in a portion of the fuel pool. Figure 5.6-3 illustrates the two burnup-enrichment equations (5.6.1.1.c.2 and 5.6.1.1.c.3) in graphical form.

e. Only spent fuel meeting the Region 3 burnup requirements shall be stored in any module in the cask loading area of the cask pit.

CRITICALITY - NEW FUEL

5.6.1.2 The new fuel pit storage racks are designed for fuel enriched to 5.0 weight percent U-235 and shall be maintained with the arrangement of 146 storage locations shown in Figure 5.6-4. The cells shown as empty cells in Figure 5.6-4 shall have physical barriers installed to ensure that inadvertent loading of fuel assemblies into these locations does not occur. This configuration ensures k_{eff} will remain less than or equal to 0.95 when flooded with unborated water and less than or equal to 0.98 under optimum moderation conditions.

R260

DRAINAGE

5.6.2 The spent fuel pit is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 722 ft.

**The nominal gap (2-1/8 inches) running in the E-W direction between the adjacent modules is referred to as the "wide gap." The N-S direction gap (1.5 inch) is referred to as the "narrow gap."