LIST OF FIGURES

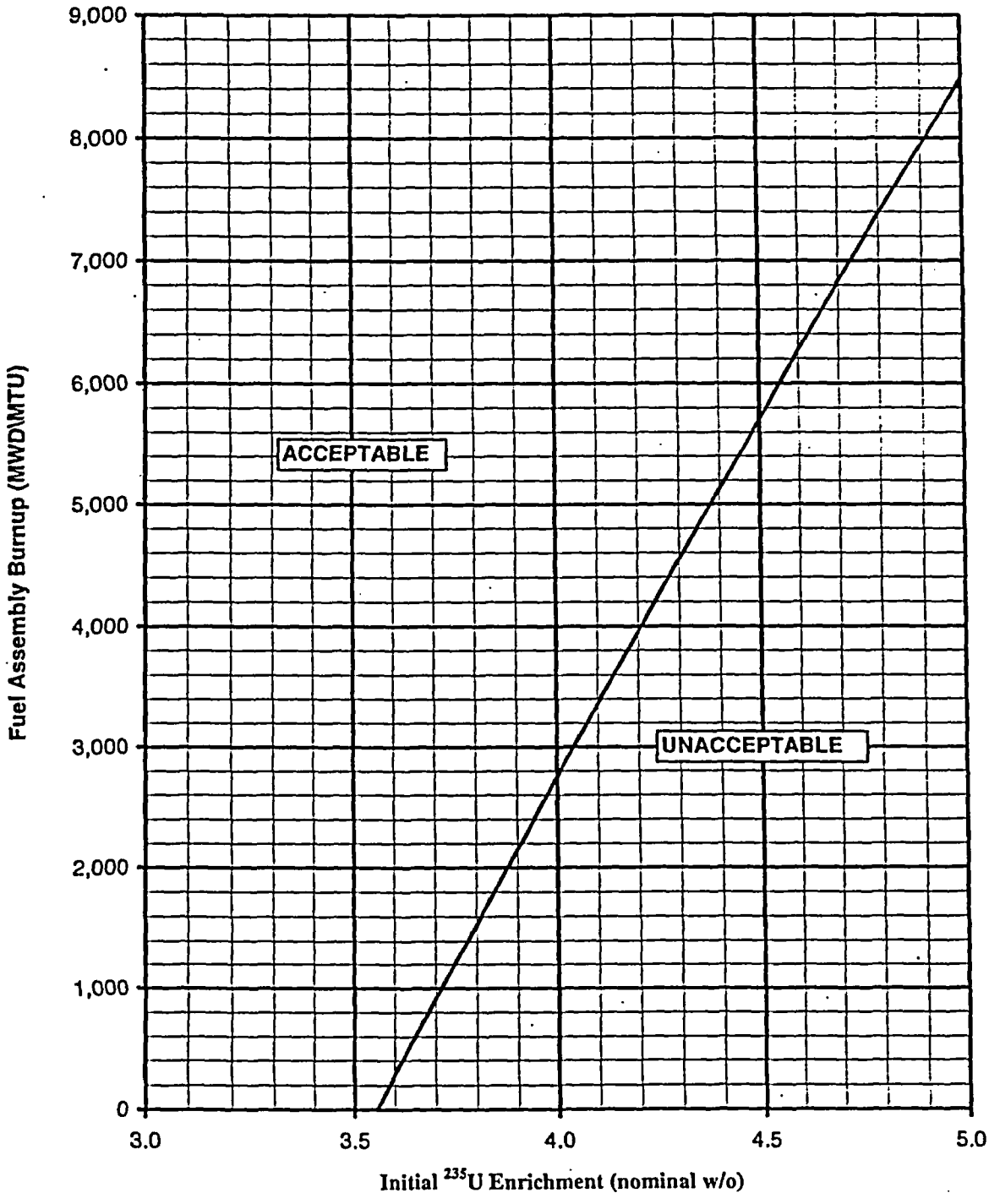


Figure 3.7.18-1 Vogtle Unit 1 Burnup Credit Requirements for All Cell Storage

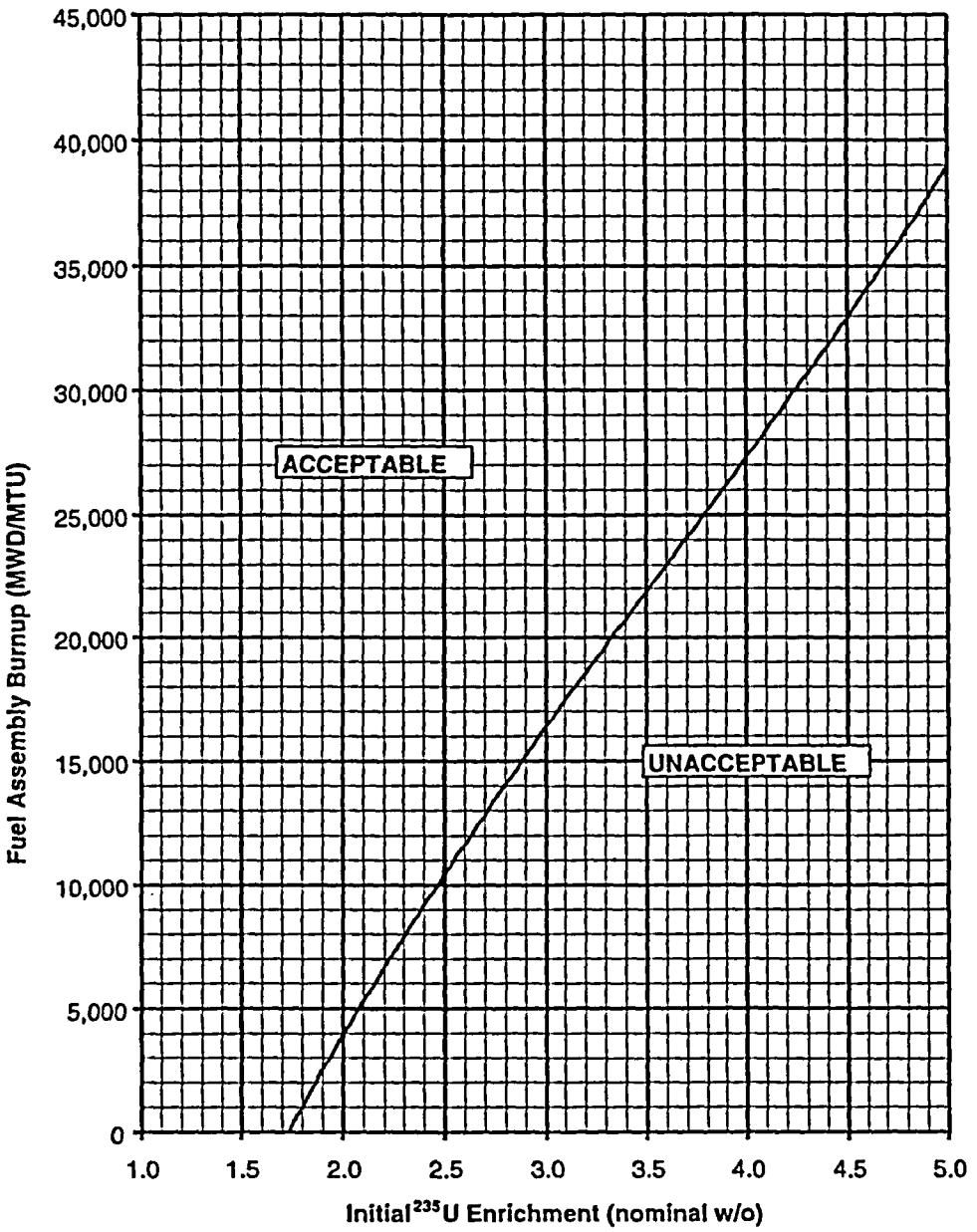


Figure 3.7.18-2 Vogtle Unit 2 Burnup Credit Requirements for All Cell Storage

4.0 DESIGN FEATURES (continued)

4.3 Fuel Storage

4.3.1 Criticality

(Unit 1) 4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;

b. $K_{eff} < 1.0$ when fully flooded with unborated water which includes an allowance for uncertainties as described in Section 4.3 of the FSAR.

c. $K_{eff} \leq 0.95$ when fully flooded with water borated to 511 ppm, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR;

d. New or partially spent fuel assemblies with a combination of burnup and initial nominal enrichment in the "acceptable burnup domain" of Figures 3.7.18-1 or satisfying a minimum Integral Fuel Burnable Absorber (IFBA) requirement as shown in Figure 4.3.1-7 may be allowed unrestricted storage in the Unit 1 fuel storage pool.

e. New or partially spent fuel assemblies with a maximum initial enrichment of 5.0 weight percent U-235 may be stored in the Unit 1 fuel storage pool in a 3-out-of-4 checkerboard storage configuration as shown in Figure 4.3.1-1.

Interfaces between storage configurations in the Unit 1 fuel storage pool shall be in compliance with Figure 4.3.1-3. "A" assemblies are new or partially spent fuel assemblies with a combination of burnup and initial nominal enrichment in the "acceptable burnup domain" of Figure 3.7.18-1, or which satisfy a minimum IFBA requirement as shown in Figure 4.3.1-7. "B" assemblies are assemblies with initial enrichments up to a maximum of 5.0 weight percent U-235.

(continued)

4.0 DESIGN FEATURES

4.3 Fuel Storage (continued)

f. A nominal 10.25 inch center to center pitch in the Unit 1 high density fuel storage racks.

(Unit 2) 4.3.1.2 The spent fuel storage racks are designed and shall be maintained with:

a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;

b. $K_{eff} < 1.0$ when fully flooded with unborated water which includes an allowance for uncertainties as described in Section 4.3 of the FSAR.

c. $K_{eff} \leq 0.95$ when fully flooded with water borated to 394 ppm, which includes an allowance for uncertainties as described in Section 4.3 of the FSAR;

d. New or partially spent fuel assemblies with a combination of burnup and initial nominal enrichment in the "acceptable burnup domain" of Figure 3.7.18-2 may be allowed unrestricted storage in the Unit 2 fuel storage pool.

e. New or partially spent fuel assemblies with a combination of burnup and initial nominal enrichment in the "acceptable burnup domain" of Figure 4.3.1-8 may be stored in the Unit 2 fuel storage pool in a 3-out-of-4 checkerboard storage configuration as shown in Figure 4.3.1-1.

New or partially spent fuel assemblies with a maximum initial enrichment of 5.0 weight percent U-235 may be stored in the Unit 2 fuel storage pool in a 2-out-of-4 checkerboard storage configuration as shown in Figure 4.3.1-1.

New or partially spent fuel assemblies with a combination of burnup, decay time, and initial nominal enrichment in the "acceptable burnup domain" of Figure 4.3.1-10 may be stored

(continued)

4.0 DESIGN FEATURES

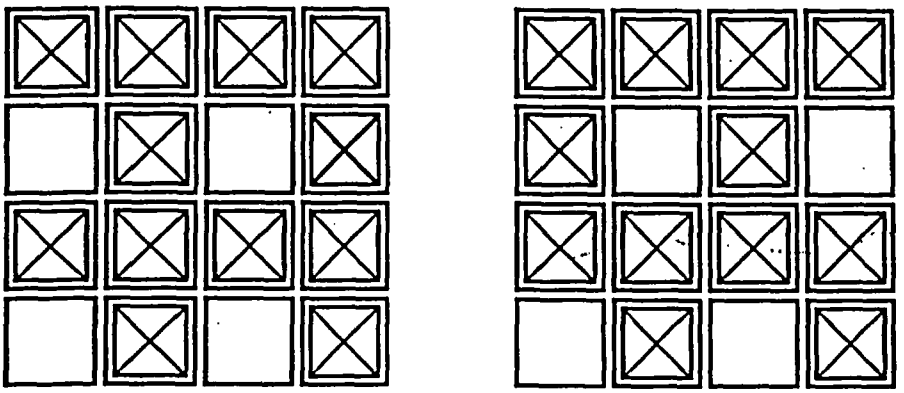
4.3 Fuel Storage (continued)

in the Unit 2 fuel storage pool as "low enrichment" fuel assemblies in the 3x3 checkerboard storage configuration as shown in Figure 4.3.1-2. New or partially spent fuel assemblies with initial nominal enrichments less than or equal to 3.20 weight percent U-235 or which satisfy a minimum IFBA requirement as shown in Figure 4.3.1-9 for higher initial enrichments may be stored in the Unit 2 fuel storage pool as "high enrichment" fuel assemblies in the 3x3 checkerboard storage configuration as shown in Figure 4.3.1-2.

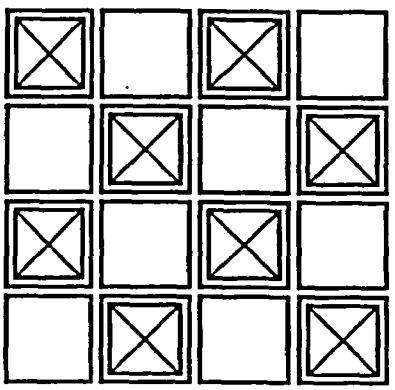
Interfaces between storage configurations in the Unit 2 fuel storage pool shall be in compliance with Figures 4.3.1-3, 4.3.1-4, 4.3.1-5, and 4.3.1-6. "A" assemblies are new or partially spent fuel assemblies with a combination of burnup and initial nominal enrichment in the "acceptable burnup domain" of Figure 3.7.18-2. "B" assemblies are new or partially spent fuel assemblies with a combination of burnup and initial nominal enrichment in the "acceptable burnup domain" of Figure 4.3.1-8. "C" assemblies are assemblies with initial enrichments up to a maximum of 5.0 weight percent U-235. "L" assemblies are new or partially spent fuel assemblies with a combination of burnup, decay time, and initial nominal enrichment in the "acceptable burnup domain" of Figure 4.3.1-10. "H" assemblies are new or partially spent fuel assemblies with initial nominal enrichments less than or equal to 3.20 weight percent U-235 or which satisfy a minimum IFBA requirement as shown in Figure 4.3.1-9 for higher initial enrichments.

f. A nominal 10.58-inch center to center pitch in the north-south direction and a nominal 10.4-inch center to center pitch in the east-west direction in the Unit 2 high density fuel storage racks.

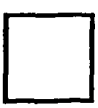
(continued)



3-out-of-4 Checkerboard Storage (Units 1 and 2)

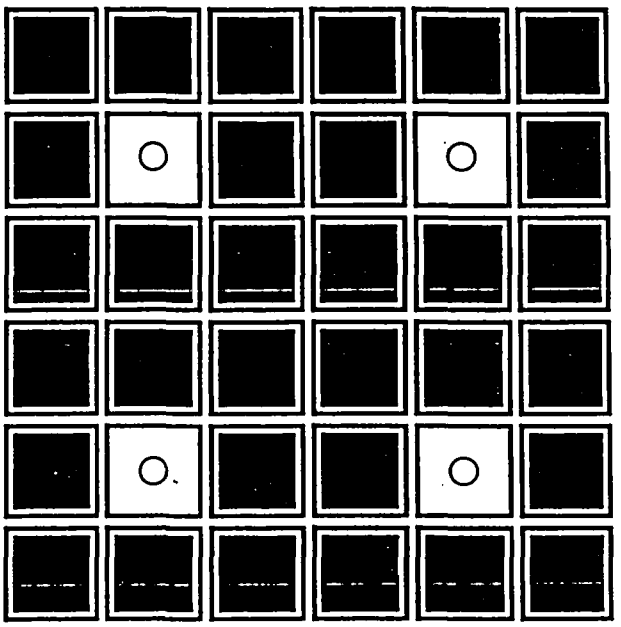


2-out-of-4 Checkerboard Storage (Unit 2)

 **Empty Storage Cell**

 **Fuel Assembly in Storage Cell**

Figure 4.3.1-1 Vogtle Units 1 and 2 Empty Cell Checkerboard Storage Configurations

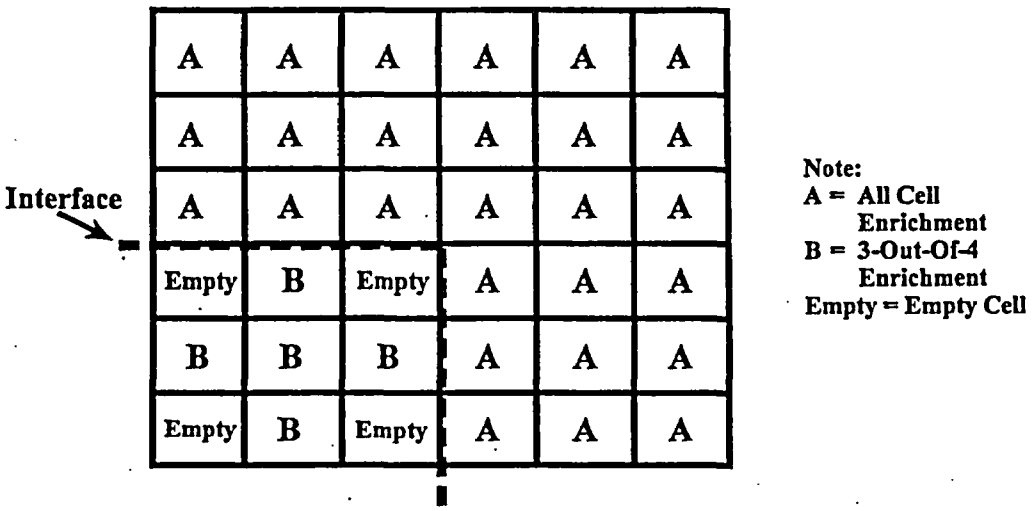


3x3 Checkerboard Storage

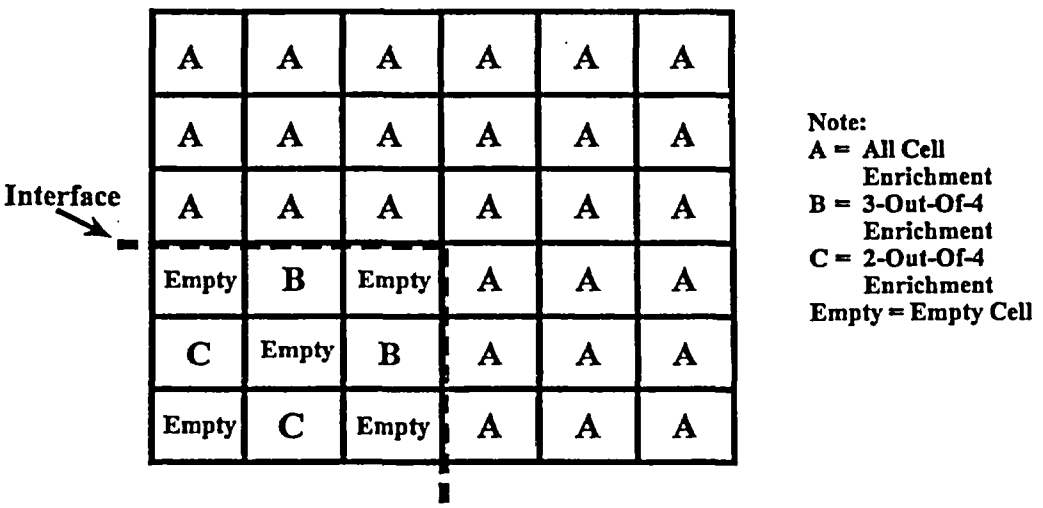
Low Enrichment Fuel Assembly in Storage Cell

High Enrichment Fuel Assembly in Storage Cell

Figure 4.3.1-2 Vogtle Unit 2 3x3 Checkerboard Storage Configuration



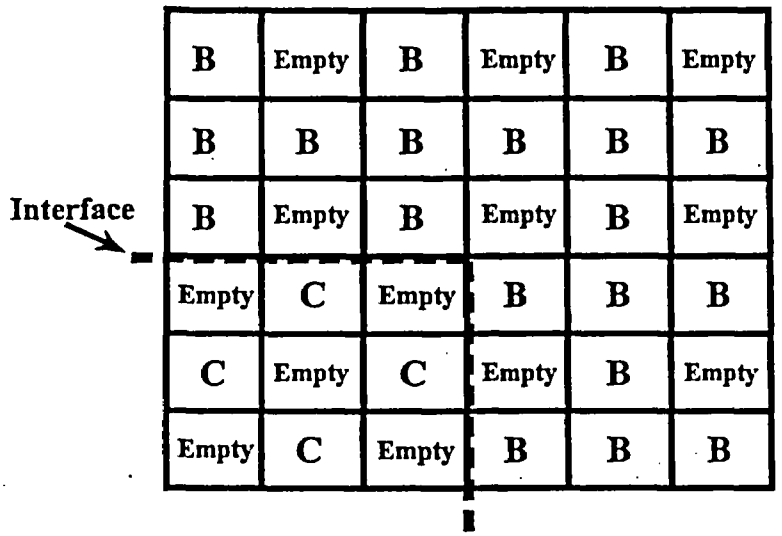
Boundary Between All Cell Storage and 3-out-of-4 Storage (Units 1 and 2)



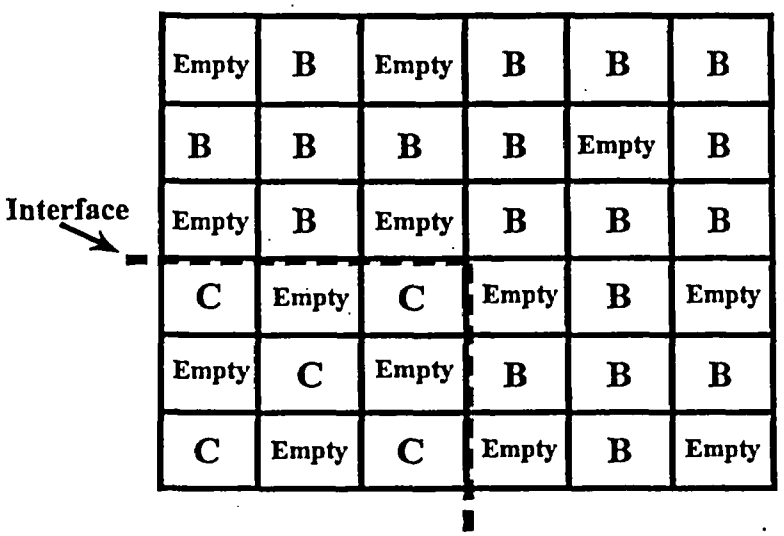
Boundary Between All Cell Storage and 2-out-of-4 Storage (Unit 2)

Note:
1. **A row of empty cells can be used at the interface to separate the configurations.**
2. **It is acceptable to replace an assembly with an empty cell.**

Figure 4.3.1-3 Vogtle Units 1 and 2 Interface Requirements (All Cell to Checkerboard Storage)



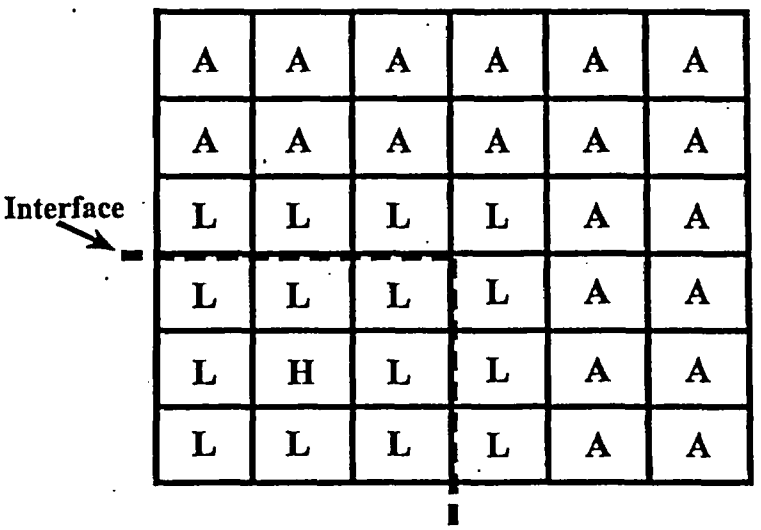
Boundary Between 2-out-of-4 Storage and 3-out-of-4 Storage



Boundary Between 2-out-of-4 Storage and 3-out-of-4 Storage

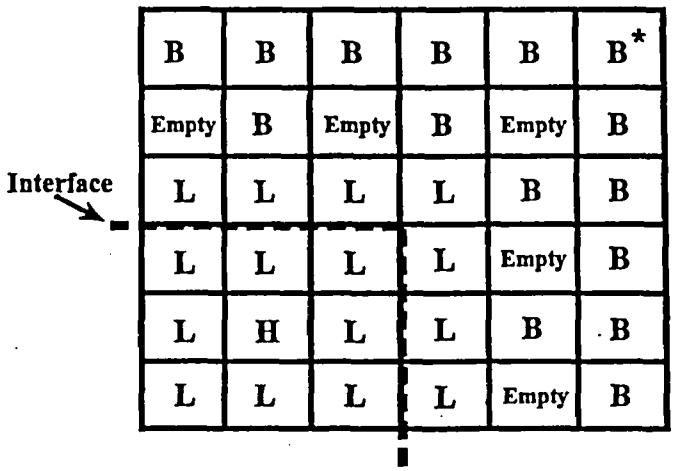
Note:
1. **A row of empty cells can be used at the interface to separate the configurations.**
2. **It is acceptable to replace an assembly with an empty cell.**

Figure 4.3.1-4 Vogtle Unit 2 Interface Requirements (Checkerboard Storage Interface)

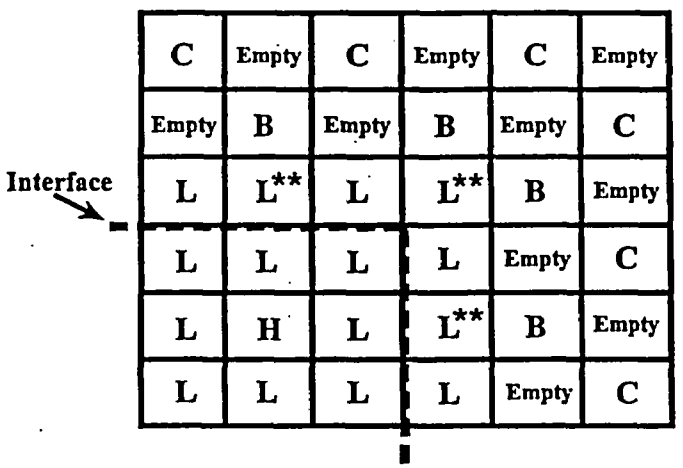


Note:
1. A row of empty cells can be used at the interface to separate the configurations.
2. It is acceptable to replace an assembly with an empty cell.

Figure 4.3.1-5 Vogtle Unit 2 Interface Requirements (3x3 Checkerboard to All Cell Storage)



Boundary Between 3x3 Storage and 3-out-of-4 Storage



Boundary Between 3x3 Storage and 2-out-of-4 Storage

Note:

1. **A row of empty cells can be used at the interface to separate the configurations.**
2. **It is acceptable to replace an assembly with an empty cell.**
3. **For the 3-out-of-4 configuration, the row beyond the Low enrichment can swap empty and and B assemblies, however the next outer row must change the indicated assembly (*) to an empty cell.**
4. **For the 2-out-of-4 configuration, the row beyond the Low enrichment can swap empty and B assemblies, however the next outer row of empty and C assemblies must also swap locations.**
5. **If empty cells are in indicated locations (**), then the face adjacent B assemblies can be C assemblies.**

Figure 4.3.1-6 Vogtle Unit 2 Interface Requirements (3x3 to Empty Cell Checkerboard Storage)

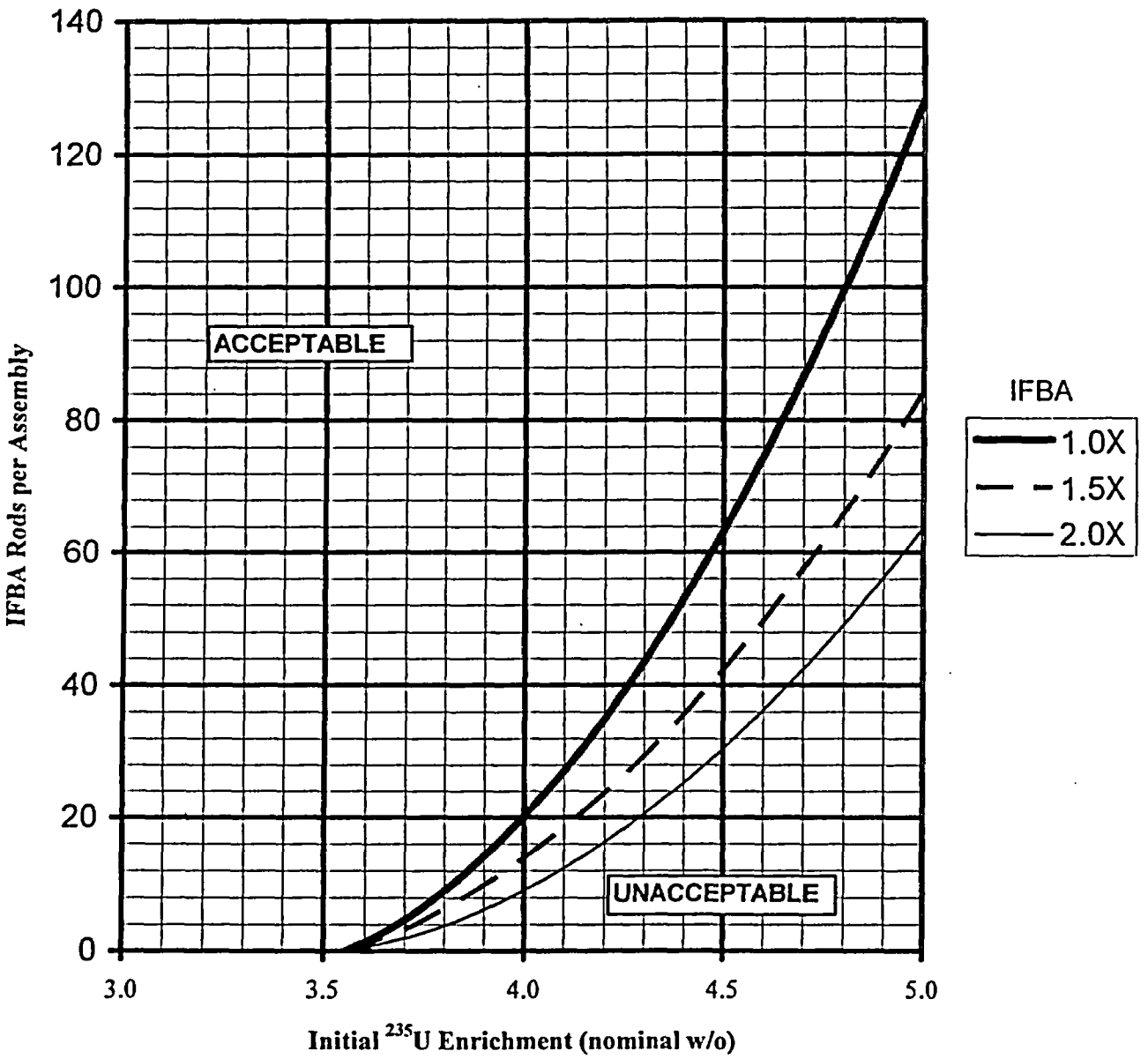


Figure 4.3.1-7 Vogtle Unit 1 IFBA Credit Requirements for All Cell Storage

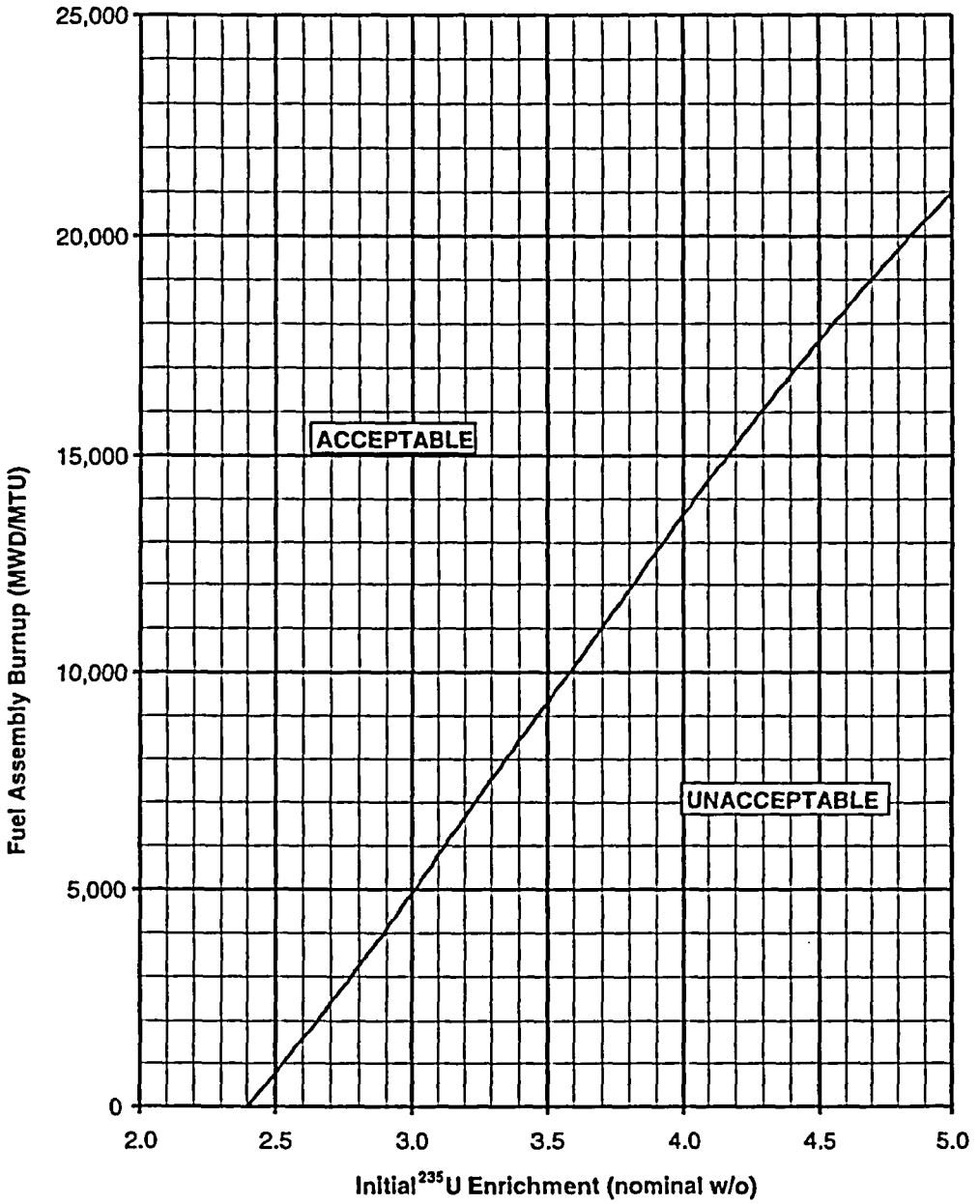


Figure 4.3.1-8 Vogtle Unit 2 Burnup Credit Requirements for 3-out-of-4 Storage

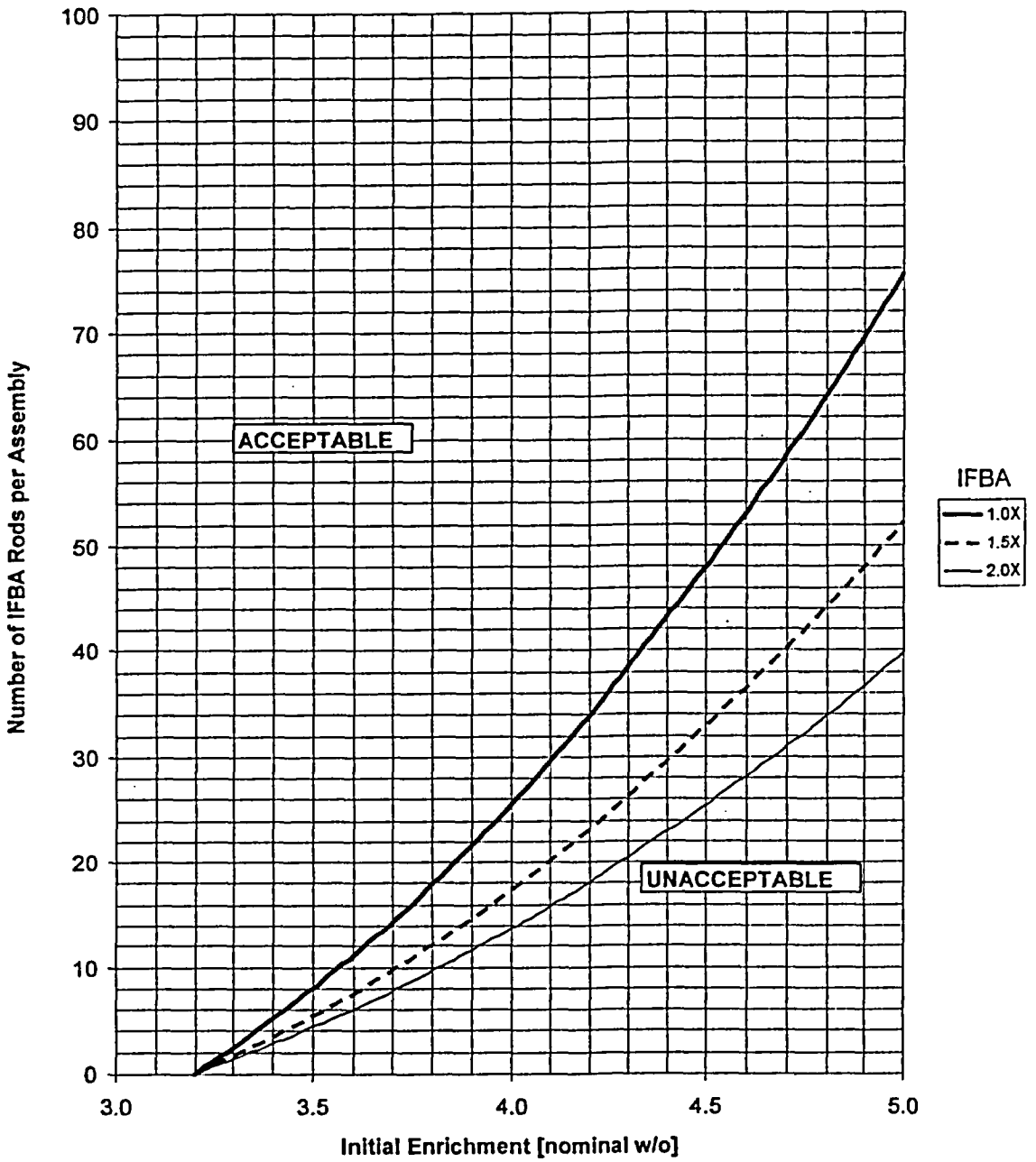


Figure 4.3.1-9 Vogtle Unit 2 IFBA Credit Requirements for Center Assembly for 3x3 Storage

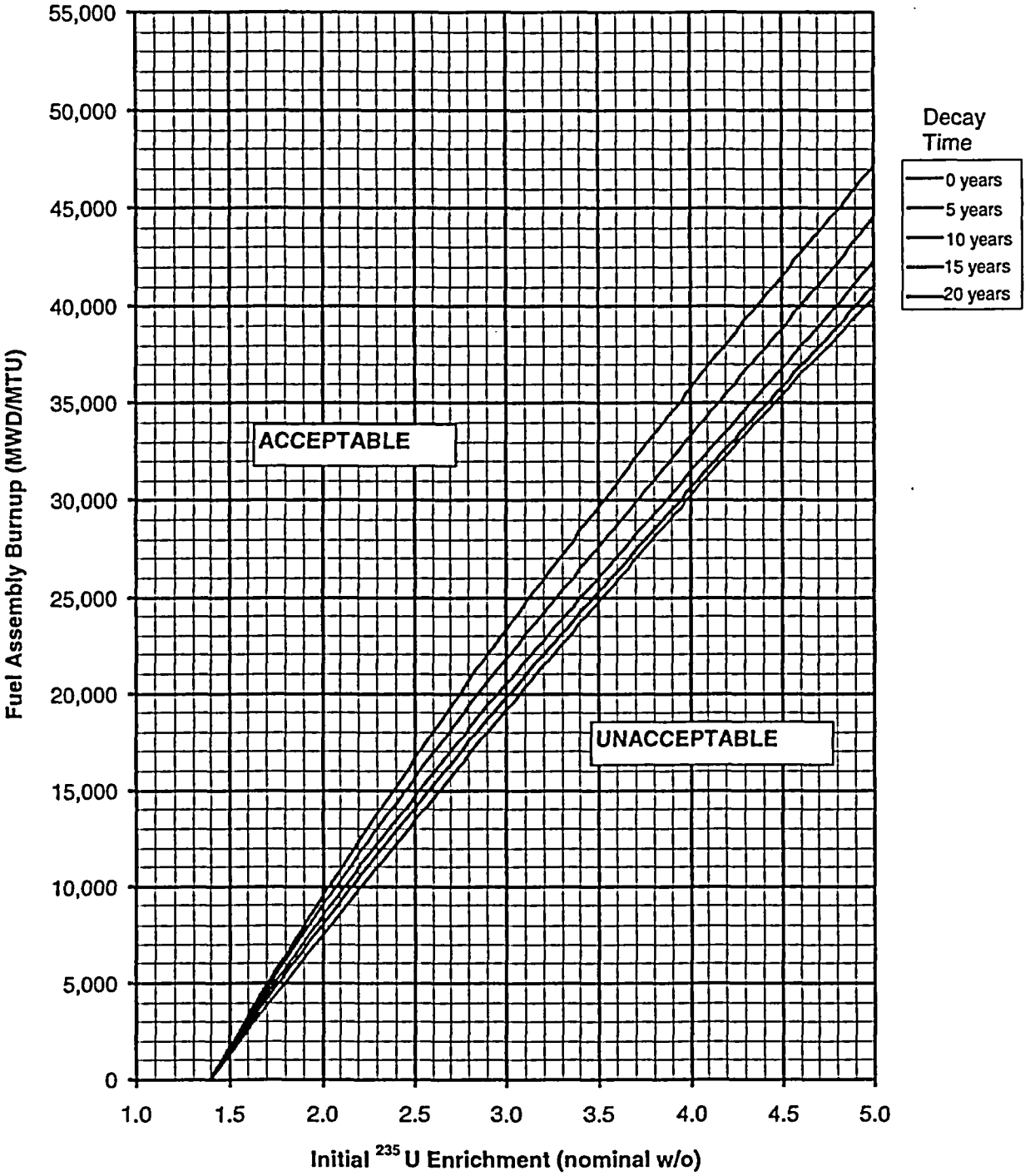


Figure 4.3.1-10 Vogtle Unit 2 Burnup Credit Requirements for Peripheral Assemblies for 3x3 Storage