ATTACHMENT 4 TO AEP:NRC:1071N

EXISTING TECHNICAL SPECIFICATIONS PAGES

MARKED-UP TO REFLECT PROPOSED CHANGES

DONALD C. COOK NUCLEAR PLANT

UNITS 1 AND 2

INSERT B. A separate region within the spent fuel storage racks, defined as Region 2, shall be established for storage of Westinghouse fuel of an enrichment less than or equal to 3.95 weight percent U-235 or an enrichment greater than 3.95 weight percent U-235 but with a burnup greater than or equal to 5,550 MWD/MTU, and Exxon/ANF fuel of an enrichment less than or equal to 4.23 weight percent U-235 for a 17x17 assembly or less than or equal to 3.50 weight percent U-235 for a 15x15 assembly.

DESIGN FEATURES

a. In accordance with the code requirements specified in Section 4.1.6 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,

b. For a pressure of 2485 psig, and

c. For a temperature of 650°F, except for the pressurizer which is 680°F.

VOLUME

5.4.2 The total contained volume of the reactor coolant system is 12,612 ± 100 cubic feet at a nominal T_{avg} of 70°F.

5.5 EMERGENCY CORE COOLING SYSTEMS

5.5.1 The emergency core cooling systems are designed and shall be maintained in accordance with the original design provisions contained in Section 6.2 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

5.6 FUEL STORAGE

CRITICALITY - SPENT FUEL

5.6.1.1: The spent fuel storage racks are designed and shall be maintained with:

a. A k_{eff} equivalent to less than 0.95 when flooded with unborated water;

b. A nominal 10.5 inch center-to-center distance between fuel assemblies placed in the storage racks.

c. 1. A separate region within the spent fuel storage racks (defined as Region 1) shall be established for storage of Westinghouse fuel ~~with nominal enrichment above 3.95 weight percent U-235 and with burnup less than 5,550 MWD/MTU. In Region 1, fuel shall be stored in a three out of four cell configuration with one symmetric cell location of each 2 x 2 cell array vacant~~

INSERT A

2. INSERT B and 2

3. The boundary between the Regions 1 mentioned above ~~and the west of the spent fuel storage racks (defined as Region 2)~~ shall be such that the ~~three out of four~~ storage requirement of Region 1 shall be carried into Region 2 by, at least, one row as shown in Figure 5.6-1.

checkerboard pattern

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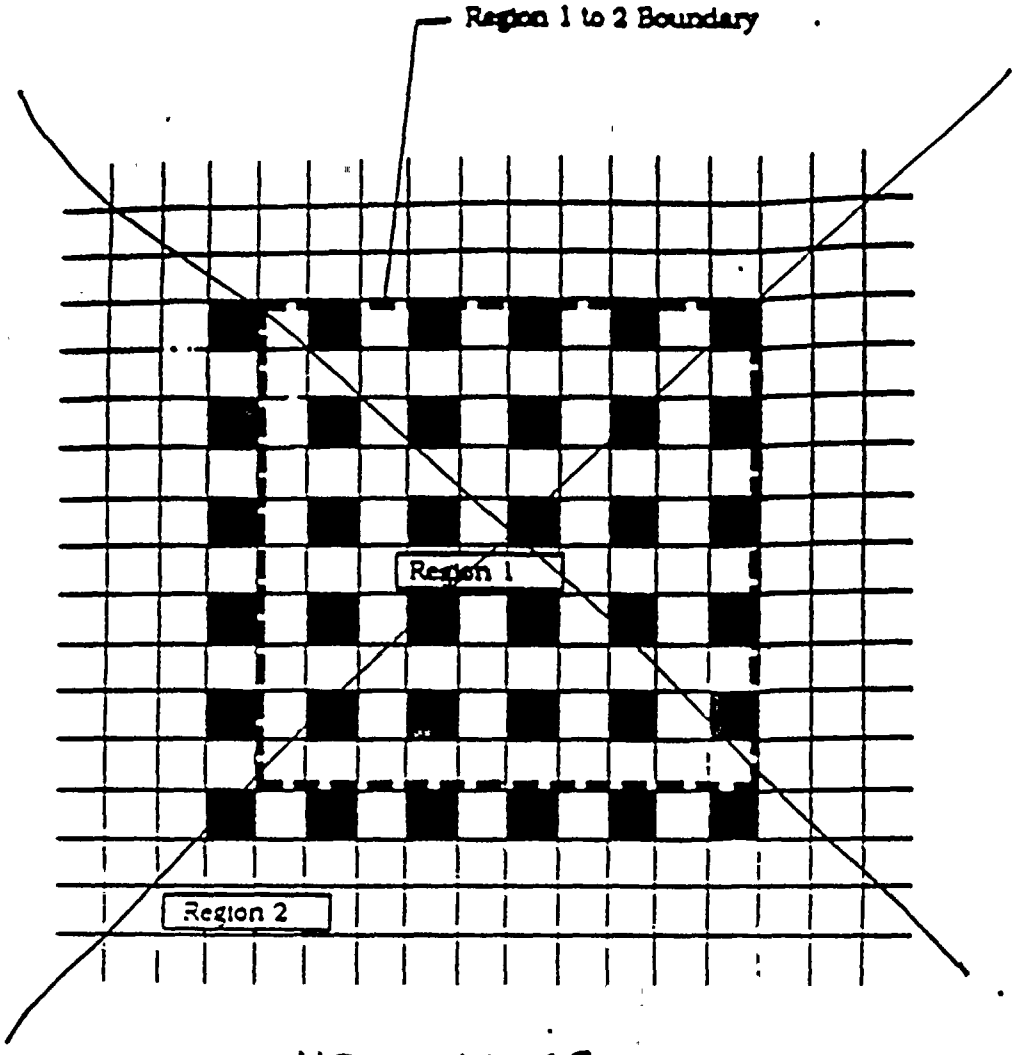
INSERT A: types of enrichments greater than 3.95 weight percent U-235 and burnup less than 5,550 MWD/MTU in a checkerboard pattern configuration alternating Category 1 and Category 2 fuel as shown in Figure 5.6-1. Westinghouse Category 1 and Category 2 fuel definitions are given in Figure 5.6-2.



NEW FIGURE

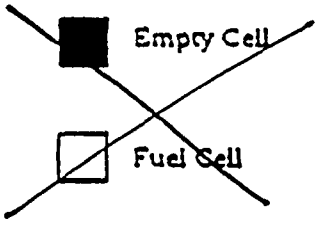


Figure 5.6-2: Donald C. Cook Nuclear Plant Schematic for Fuel Storage Racks Interface Boundary Between Regions 1 and 2

DESIGN FEATURES

5.6.1.2: Fuel stored in the spent fuel storage racks shall have a maximum nominal fuel assembly enrichment as follows:

Description		Maximum Nominal Fuel Assembly Enrichment Wt. % 235_U
1) Westinghouse	15 x 15 STD 15 x 15 OFA	4.95
2) Exxon/ANF	15 x 15	3.50
3) Westinghouse	17 x 17 STD 17 x 17 OFA 17 x 17 V5	4.95
4) Exxon/ANF	17 x 17	4.23

CRITICALITY-NEW FUEL

5.6.2.1 The new fuel pit storage racks are designed and shall be maintained with a nominal 21 inch center-to-center distance between new fuel assemblies such that k_{eff} will not exceed 0.98 when fuel assemblies are placed in the pit and aqueous foam moderation is assumed.

5.6.2.2 Fuel stored in the new fuel storage racks shall have a maximum nominal fuel assembly enrichment as follows;

Description		Maximum Nominal Fuel Assembly Enrichment Wt. % 235_U
1) Westinghouse	15 x 15 STD 15 x 15 OFA	4.55
2) Exxon/ANF	15 x 15	3.50
3) Westinghouse	17 x 17 STD 17 x 17 OFA 17 x 17 V5	4.55
4) Exxon/ANF	17 x 17	4.23

DRAINAGE

5.6.3 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 629'4".

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DESIGN FEATURES

CAPACITY

5.6.4 The fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 2050 fuel assemblies.

5.7 SEISMIC CLASSIFICATION

5.7.1 Those structures, systems and components identified as Category I Items in the FSAR shall be designed and maintained to the original design provisions contained in the FSAR with allowance for normal degradation pursuant to the applicant Surveillance Requirements.

5.8 METEOROLOGICAL TOWER LOCATION

5.8.1 The meteorological tower shall be located as shown in Figure 5.1-1.

5.9 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.9.1 The components identified in Table 5.9-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.9-1.

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D.C. COOK-UNIT 1

TABLE 5.9-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

COMPONENT	CYCLIC OR TRANSIENT LIMIT	DESIGN CYCLE OR TRANSIENT
Reactor Coolant System	200 heatup cycles at ≤ 100°F/hr and 200 cooldown cycles at ≤ 100°F/hr (pressurizer cooldown at ≤ 200°F/hr).	Heatup cycle - T_{avg} from ≤ 200°F to ≥ 547°F. Cooldown cycle - T_{avg} from ≥ 547°F to ≤ 200°F.
	80 loss of load cycles.	Without immediate turbine or reactor trip.
	40 cycles of loss of offsite A.C. electrical power.	Loss of offsite A.C. electrical power source supplying the onsite Class 1E distribution system.
	80 cycles of loss of flow in one reactor coolant loop.	Loss of only one reactor coolant pump.
	400 reactor trip cycles.	100% to 0% of RATED THERMAL POWER.
	200 large step decreases in load.	100% to 5% of RATED THERMAL POWER with steam dump.

D. C. COOK-UNIT 1

5.9

TABLE 5.9-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

COMPONENT	CYCLIC OR TRANSIENT LIMIT	DESIGN CYCLE OR TRANSIENT
Reactor Coolant System	1 main reactor coolant pipe break.	Break in a reactor coolant pipe > 6 inches equivalent diameter.
	Operating Basis Earthquakes	400 cycles - 20 earthquakes of 20 cycles each.
	50 leak tests.	Pressurized to 2500 psia
	5 hydrostatic pressure tests	Pressurized to 3107 psig.
Secondary System	1 steam line break	Break in a steam line > 5.5 inches equivalent diameter.
	5 hydrostatic pressure tests	Pressurized to 1356 psig.

INSERT B: A separate region within the spent fuel storage racks, defined as Region 2, shall be established for storage of Westinghouse fuel of an enrichment less than or equal to 3.95 weight percent U-235 or an enrichment greater than 3.95 weight percent U-235 but with a burnup greater than or equal to 5,550 MWD/MTU, and Exxon/ANF fuel of an enrichment less than or equal to 4.23 weight percent U-235 for a 17x17 assembly or less than or equal to 3.50 weight percent U-235 for a 15x15 assembly;

VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is 12,612 ± 100 cubic feet at a nominal T_{avg} of 70°F.

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-1.

5.6 FUEL STORAGE

CRITICALITY - SPENT FUEL

5.6.1.1 The spent fuel storage racks are designed and shall be maintained with:

a. A K_{eff} equivalent to less than 0.95 when flooded with unborated water,

b. A nominal 10.5-inch center-to-center distance between fuel assemblies, placed in the storage racks.

c. 1. A separate region within the spent fuel storage racks (defined as Region 1) shall be established for storage of Westinghouse fuel ~~with nominal enrichmens above 3.95 weight percent U-235 and with burnup less than 5,550 MWD/MTU. In Region 1, fuel shall be stored in a three-out-of-four cell configuration with one symmetric cell location of each 2 x 2 cell array vacant.~~

INSERT A

2. INSERT B

3. The boundary between the Regions mentioned above and 2 ~~and the root of the spent fuel storage racks (defined as Region 2)~~ shall be such that the ~~three-out-of-four~~ storage requirement of Region 1 shall be carried into Region 2 by at least, one row as shown in Figure 5.6-1.

checkerboard pattern

5.6.1.2 Fuel stored in the spent fuel storage racks shall have a maximum nominal fuel assembly enrichment as follows:

Description		Maximum Nominal Fuel Assembly Enrichment Wt. % 235_U
1) Westinghouse	15 x 15 STD 15 x 15 OFA	4.95
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3) Westinghouse	17 x 17 STD 17 x 17 OFA 17 x 17 V5	4.95
4) Exxon/ANF	17 x 17	4.23

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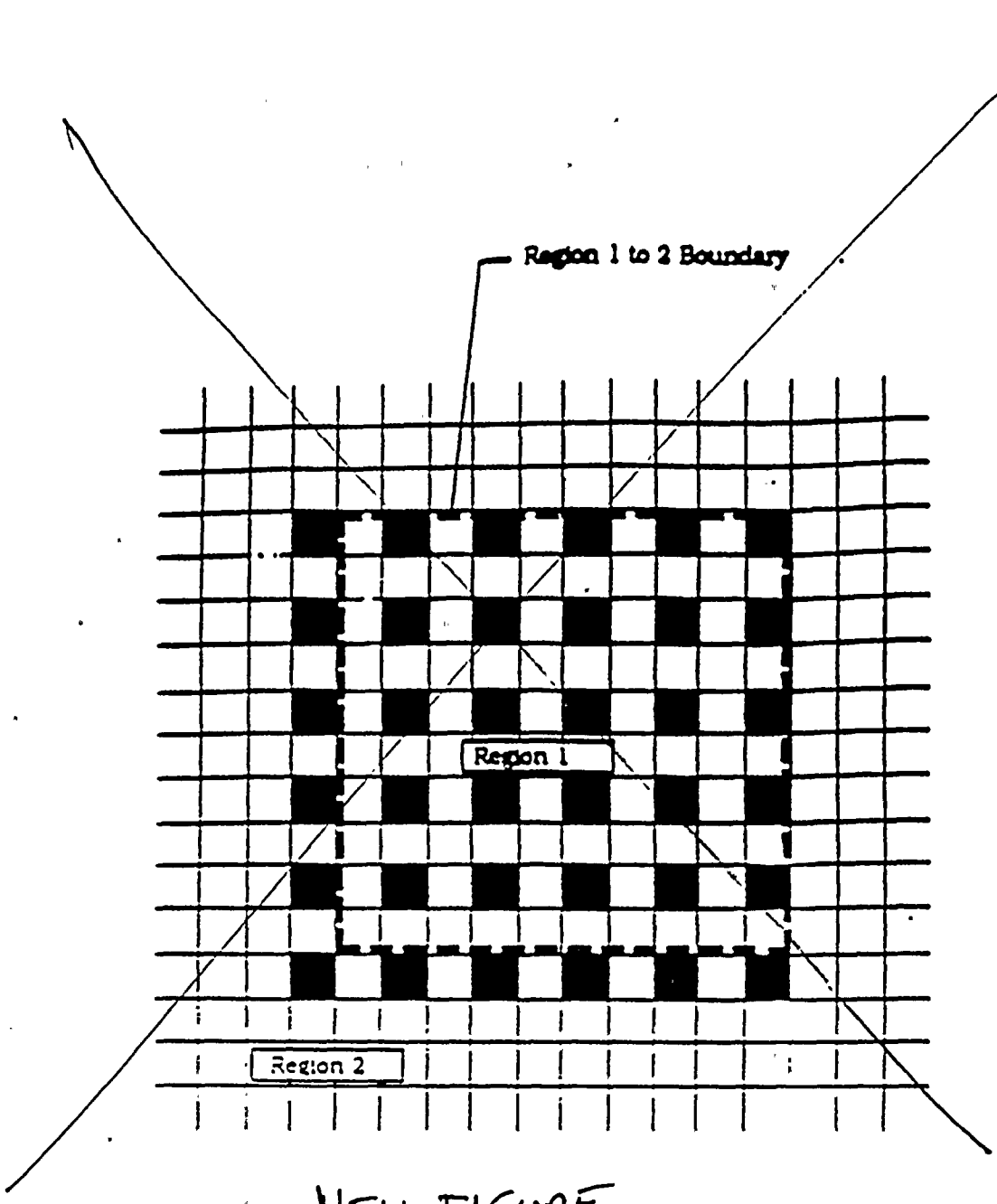
INSERT A: types of enrichments greater than 3.95 weight percent U-235 and burnup less than 5,550 MWD/MTU in a checkerboard pattern configuration alternating Category 1 and Category 2 fuel as shown in Figure 5.6-1.
Westinghouse Category 1 and Category 2 fuel definitions are given in Figure 5.6-2



NEW FIGURE

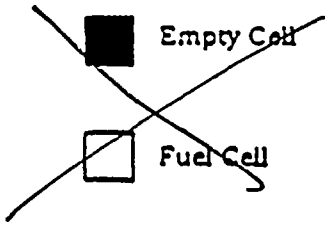


Figure 5.6-1: Donald C. Cook Nuclear Plant Schematic for Fuel Storage Racks Interface Boundary Between Regions 1 and 2

CRITICALITY-NEW FUEL

5.6.2.1 The new fuel pit storage racks are designed and shall be maintained with a nominal 21 inch center-to-center distance between new fuel assemblies such that K_{eff} will not exceed 0.98 when fuel assemblies are placed in the pit and aqueous foam moderation is assumed.

5.6.2.2 Fuel stored in the new fuel storage racks shall have a maximum nominal fuel assembly enrichment as follows;

Description		Maximum Nominal Fuel Assembly Enrichment Wt. % 235_U
1) Westinghouse	15 x 15 STD 15 x 15 OFA	4.55
2) Exxon/ANF	15 x 15	3.50
3) Westinghouse	17 x 17 STD 17 x 17 OFA 17 x 17 V5	4.55
4) Exxon/ANF	17 x 17	4.23

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DRAINAGE

5.6.3 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 629'4".

CAPACITY

5.6.4 The spent fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 2050 fuel assemblies.

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5.7 COMPONENT CYCLIC OR TRANSIENT LIMIT

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.

D. C. COOK - UNIT 2

5.7

TABLE 5.7-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

COMPONENT	CYCLIC OR TRANSIENT LIMIT	DESIGN CYCLE OR TRANSIENT
Reactor Coolant System	200 heatup cycles at ≤ 100°F/hr and 200 cooldown cycles at ≤ 100°F/hr (pressurizer cooldown at ≤ 200°F/hr).	Heatup cycle - T_{avg} from ≤ 200°F to > 547°F. Cooldown cycle - T_{avg} from ≥ 547°F to ≤ 200°F.
	80 loss of load cycles.	Without immediate turbine or reactor trip.
	40 cycles of loss of offsite A.C. electrical power.	Loss of offsite A.C. electrical power source supplying the onsite Class 1E distribution system.
	80 cycles of loss of flow in one reactor coolant loop.	Loss of only one reactor coolant pump.
	400 reactor trip cycles.	100% to 0% of RATED THERMAL POWER.
	200 large step decreases in load.	100% to 5% of RATED THERMAL POWER with steam dump.

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TABLE 5.~~X~~-1 (Continued)

COMPONENT CYCLIC OR TRANSIENT LIMITS

COMPONENT	CYCLIC OR TRANSIENT LIMIT	DESIGN CYCLE OR TRANSIENT
Reactor Coolant System	1 main reactor coolant pipe break.	Break in a reactor coolant pipe > 6 inches equivalent diameter.
	Operating Basis Earthquakes	400 cycles - 20 earthquakes of 20 cycles each.
	50 leak tests.	Pressurized to 2500 psia
	5 hydrostatic pressure tests	Pressurized to 3107 psig.
Secondary System	1 steam line break	Break in a steam line > 5.5 inches equivalent diameter.
	5 hydrostatic pressure tests	Pressurized to 1356 psig.

D.C. COOK - UNIT 2

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