

ATTACHMENT NO. 2 TO AEP:NRC:0745B
DONALD C. COOK NUCLEAR PLANT UNIT NOS. 1 AND 2
TECHNICAL SPECIFICATION CHANGES

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DESIGN FEATURES

DESIGN PRESSURE AND TEMPERATURE

5.2.2 The reactor containment building is designed and shall be maintained in accordance with the original design provisions contained in Section 5.2.2 of the FSAR.

PENETRATIONS

5.2.3 Penetrations through the reactor containment building are designed and shall be maintained in accordance with the original design provisions contained in Section 5.4 of the FSAR with allowance for normal degradation pursuant to the applicable Surveillance Requirements.

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 193 fuel assemblies with each fuel assembly containing 204 fuel rods clad with Zircaloy-4. Each fuel rod shall have a nominal active fuel length of 144 inches and contain a maximum total weight of 2236 grams uranium. The initial core loading shall have a maximum enrichment of 3.35 weight percent U-235. Reload fuel shall be similar in physical design to the initial core loading and shall have a maximum enrichment of 4.0 weight percent U-235.

CONTROL ROD ASSEMBLIES

5.3.2 The reactor core shall contain 53 full length and no part length control rod assemblies. The full length control rod assemblies shall contain a nominal 142 inches of absorber material. The nominal values of absorber material shall be 80 percent silver, 15 percent indium and 5 percent cadmium. All control rods shall be clad with stainless steel tubing.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

5.4.1 The reactor coolant system is designed and shall be maintained:

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.

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

<u>Fuel Type</u>	<u>Description</u>	<u>Maximum Nominal Fuel Assembly Enrichment</u>	
		<u>Wt. % ²³⁵U</u>	
I	Westinghouse	15x15	3.50
II	Exxon	15x15	3.50
III	Westinghouse	17x17	3.50
IV	Exxon	17x17	3.84
V	Westinghouse (OFA)	15x15	4.00

CRITICALITY - NEW FUEL

5.6.2 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 Types I, II, III, IV and V (as defined in Section 5.6.1.2) are placed in the pit and aqueous foam moderation is assumed.

DESIGN FEATURES

VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is $12,612 \pm 100$ 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.

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

<u>Fuel Type</u>	<u>Description</u>	<u>Maximum Nominal Fuel Assembly Enrichment</u>	
		<u>Wt. % ^{235}U</u>	
I	Westinghouse	15x15	3.50
II	Exxon	15x15	3.50
III	Westinghouse	17x17	3.50
IV	Exxon	17x17	3.84
V	Westinghouse (OFA)	15x15	4.00

CRITICALITY - NEW FUEL

5.6.2 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 Types I, II, III, IV and V (as defined in Section 5.6.1.2) are placed in the pit and aqueous foam moderation is assumed.

