



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

DUKE POWER COMPANY

DOCKET NO. 50-369

McGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 35  
License No. NPF-9

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the McGuire Nuclear Station, Unit 1 (the facility) Facility Operating License No. NPF-9 filed by the Duke Power Company (licensee) dated February 17, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachments to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-9 is hereby amended to read as follows:

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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 35, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing

Attachment:  
Technical Specification  
Changes

Date of Issuance: September 24, 1984



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

DUKE POWER COMPANY

DOCKET NO. 50-370

McGUIRE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 16  
License No. NPF-17

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the McGuire Nuclear Station, Unit 2 (the facility) Facility Operating License No. NPF-17 filed by the Duke Power Company (licensee) dated February 17, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachments to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-17 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 16, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing

Attachment:  
Technical Specification  
Changes

Date of Issuance: September 24, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 35

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 16

FACILITY OPERATING LICENSE NO. NPF-17

DOCKET NO. 50-370

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain a vertical line indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

<u>Amended</u> <u>Page</u>	<u>Overleaf</u> <u>Page</u>
5-7	5-8
5-7a	
3/4 9-16	
3/4 9-17	

## DESIGN FEATURES

### 5.4 REACTOR COOLANT SYSTEM

#### DESIGN PRESSURE AND TEMPERATURE

5.4.1 The Reactor Coolant System is designed and shall be maintained:

- a. In accordance with the Code requirements specified in Section 5.2 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 water and steam volume of the Reactor Coolant System is 12,040  $\pm$  100 cubic feet at a nominal  $T_{avg}$  of 525°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

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

- a. A  $k_{eff}$  equivalent to less than or equal to 0.95 when flooded with unborated water, which includes a conservative allowance for uncertainties as described in Section 9.1.2.3.1 of the FSAR, and
- b. A nominal 21-inch center-to-center distance between fuel assemblies placed in the new fuel storage vault racks, and
- c. A nominal 10.4-inch and 9.125-inch center-to-center distance between fuel assemblies placed in Region 1 and Region 2 storage racks, respectively, in the spent fuel storage pool.

#### DRAINAGE

5.6.2 The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 745 ft. 7 in.

#### CAPACITY

5.6.3 The spent fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 1463 fuel assemblies (286 spaces in Region 1 and 1177 spaces in Region 2) having an initial enrichment less than or equal to 4.0 weight percent U-235.

DESIGN FEATURES

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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.

TABLE 5.7-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>CYCLIC OR TRANSIENT LIMIT</u>	<u>DESIGN CYCLE OR TRANSIENT</u>
Reactor Coolant System	200 heatup cycles at $\leq 100^\circ\text{F/hr}$ and 200 cooldown cycles at $\leq 100^\circ\text{F/hr}$ (pressurizer cooldown at $\leq 200^\circ\text{F/hr}$ for $200^\circ\text{F} \leq T_{\text{pressurizer}} \leq 650^\circ\text{F}$ ).	Heatup cycle - $T_{\text{avg}}$ from $< 200^\circ\text{F}$ to $> 551^\circ\text{F}$ . Cooldown cycle - $T_{\text{avg}}$ from $\geq 551^\circ\text{F}$ to $\leq 200^\circ\text{F}$ .
	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 0% of RATED THERMAL POWER with steam dump.



## REFUELING OPERATIONS

### 3/4.9.12 FUEL STORAGE - SPENT FUEL STORAGE POOL

#### LIMITING CONDITION FOR OPERATION

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3.9.12 Fuel is to be stored in the spent fuel storage pool with:

- a. Storage in Region 2 restricted to the following:
  - 1) Fuel which has been qualified in accordance with Figure 3.9-2 or unqualified fuel stored in a checkerboard configuration. In the event checkerboard storage is used, one row between normal storage locations and checkerboard storage locations will be vacant; and
  - 2) Irradiated fuel which has decayed at least 16 days; and
- b. The boron concentration in the spent fuel pool maintained at greater than or equal to 2000 ppm.

#### APPLICABILITY:

During storage of fuel in the spent fuel pool.

#### ACTION:

- a. Suspend all actions involving the movement of fuel in the spent fuel pool if it is determined a fuel assembly has been placed in the incorrect Region until such time as the correct storage location is determined. Move the assembly to its correct location before resumption of any other fuel movement.
- b. Suspend all actions involving the movement of fuel in the spent fuel pool if it is determined the pool boron concentration is less than 2000 ppm, until such time as the boron concentration is increased to 2000 ppm or greater.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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- 4.9.12a. Verify all fuel assemblies to be placed in Region 2 of the spent fuel pool are within the enrichment and burnup limits of Figure 3.9-2 by checking the assemblies' design and burnup documentation.
- b. Verify at least once per 31 days that the spent fuel pool boron concentration is greater than 2000 ppm.

REFUELING OPERATIONS

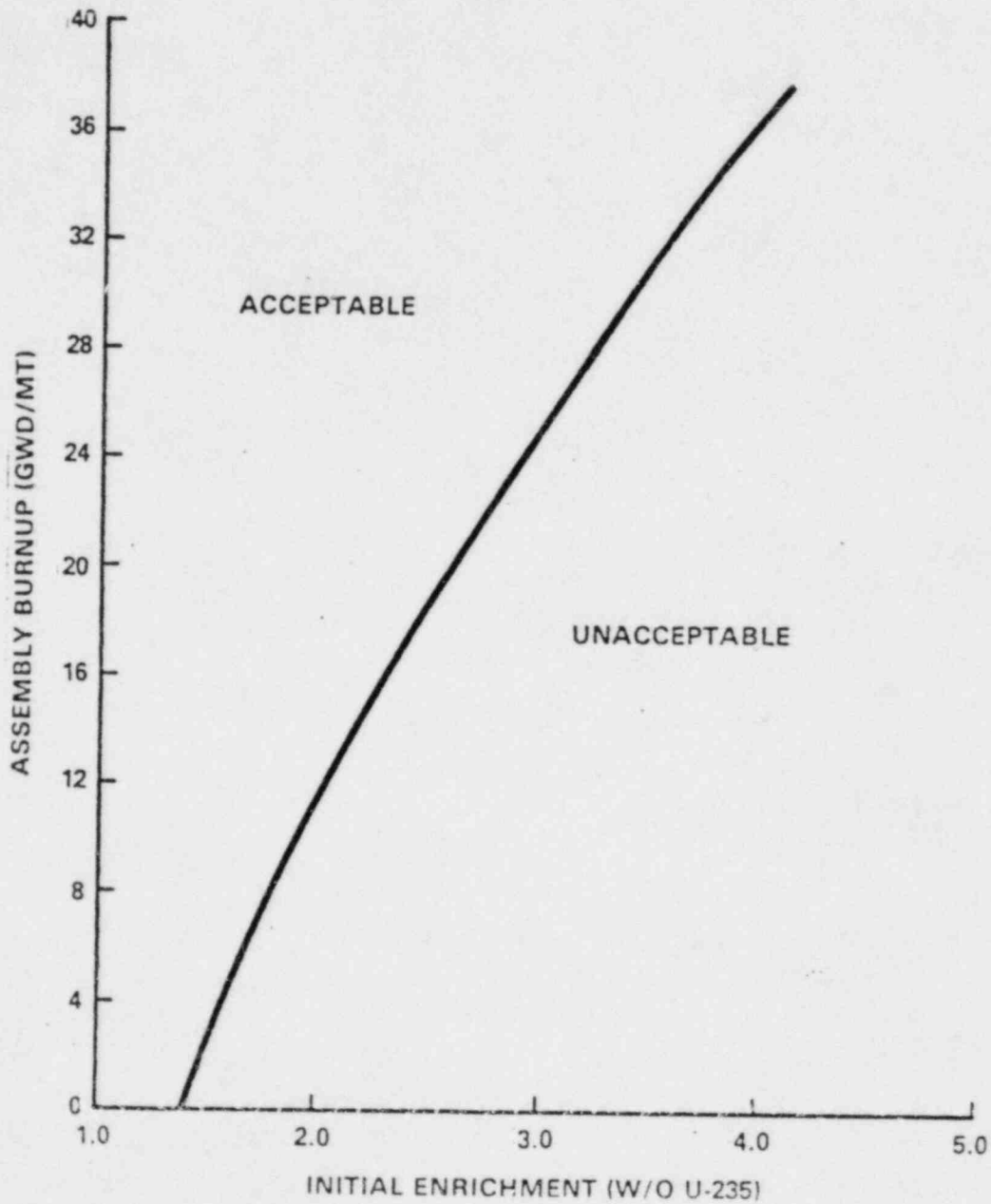


Figure 3.9-2  
Minimum Burnup vs. Initial Enrichment  
for Region 2 Storage