

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

October 5, 1984

Docket Nos: 50-369 and 50-370

Mr. H. B. Tucker, Vice President Nuclear Production Department Duke Power Company 422 South Church Street Charlotte, North Carolina 28242

Dear Mr. Tucker:

Subject: Issuance of Amendment No. 36 to Facility Operating License NPF-9, Amendment No.17 to Facility Operating License NPF-17 and Exemption to 10 CFR Part 50, Appendix J - McGuire Nuclear Station, Units 1 and 2

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 36 to Facility Operating License NPF-9 and Amendment No. 17 to Facility Operating License NPF-17 for the McGuire Nuclear Station, Units 1 and 2. These amendments consist of changes to the Technical Specifications in response to your application dated August 2, 1983. Other changes requested in that application were approved in Amendments 29, 30, 10 and 11.

The amendments change the Technical Specifications related to ice condenser inlet door surveillance, containment air lock testing, containment integrity, bypass leakage, and the distributed ignition system.

In connection with this action, the Commission has granted an exemption which allows the licensee to perform the overall air lock leakage test when maintenance has been performed on the air lock that could affect the air lock sealing capability. This is an exemption from Paragraph III.D.2(b)(ii) of Appendix J to 10 CFR 50 which states "Air locks opened during periods when containment integrity is not required by the plant's Technical Specifications shall be tested at the end of such periods at no less than P_a ."

We find that granting the proposed exemption from the requirements of Appendix J is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest.



A copy of the related safety evaluation report supporting Amendment No. 36 to Facility Operating License NPF-9, Amendment No. 17 to Facility Operating License NPF-17, and the Exemption from 10 CFR Part 50, Appendix J is enclosed.

Sincerely,

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

Enclosures:

1. Amendment No. 36 to NPF-9 2. Amendment No. 17 to NPF-17 1-

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- 3. Exemption
- 4. Safety Evaluation

cc w/encl: See next page

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UNITED STATES

DUKE POWER COMPANY

DOCKET NO. 50-369

MCGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 36 License No. NPF-9

1. The Nuclear Regulatory Commission (the Commission) has found that:

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- 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 August 2, 1983, 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. 36, 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

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

Attachment: Technical Specification Changes

Date of Issuance: October 5, 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. 17 License No. NPF-17

1. The Nuclear Regulatory Commission (the Commission) has found that:

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- 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 August 2, 1983, 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.17, 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

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Date of Issuance: October 5, 1984

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ATTACHMENT TO LICENSE AMENDMENT NO. 36

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 17

FACILITY OPERATING LICENSE NO. NPF-17

DOCKET NO. 50-370

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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>Overleaf</u> Page	Amended Page
3/1 6-7	3/4 6-1
5/4 0-7	3/4 6-8 3/4 6-9 3/4 6-9a 3/4 6-11
3/4 6-12	3/4 6-33
3/4 6-34	3/4 6-37 3/4 6-38

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except as provided in Table 3.6-2 of Specification 3.6.3;
- b. By verifying that each containment air lock is in compliance with Specification 3.6.1.3; and
- c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at P, 14.8 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than 0.60 L.

McGUIRE - UNITS 1 and 2

Amendment No.17 (Unit 2) Amendment No.36 (Unit 1)

Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and the annulus and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

TABLE 3.6+1 (Continued)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

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PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST TYPE
M390	Containment Ventilation Cooling Water Out	Turbine Building	Туре С
M279	Containment Ventilation Cooling Water Out	Turbine Building	Туре С
M220	Instrument Air	Auxiliary Building	Туре С
M219	Station Air	Auxiliary Building	Type C
M215	Breathing Air	Auxiliary Building	Type C
M378	Containment Sample Out	Auxiliary Building	Type C
M325	Containment Sample In	Auxiliary Building	Type C
M358	Refueling Cavity to RW Pump	Auxiliary Building	Type C
M377	Refueling Cavity From RW Tank	Auxiliary Building	Type C
M331	Hydrogen Purge In	Atmosphere	Type C
M326	RCP Motor Drain Tank Pump to Waste Oil Storage	Auxiliary Building	Type C
M221	Containment Ventilation Units Condenser Drains to Condenser Drain Tank	Auxiliary Building	Туре С
M359	Instrument Air	Auxiliary Building	Type C
M386	Instrument Air	Auxiliary Building	Type C

McGUIRE - UNITS 1 and 2

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TABLE 3.6-1 (Continued)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

	PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TYPE
NITS	M317	Instrument Air	Auxiliary Building	Type C
ц	M243	Containment Air Release	Auxiliary Building	Type C
ind 2	M384	Containment Air Addition	Auxiliary Building 💡	Type C
	M361	Reactor Coolant Pump Motor Oil Supply	Auxiliary Building	Type C
	M353	Fire Protection Header	Auxiliary Building	Type C
3/4 6-8	M376	Component Cooling Water to Reactor Coolant Drain Tank Heat Exchanger	Auxiliary Building	Туре С
	M355 ,	Component Cooling Water from Reactor Coolant Drain Tank Heat Exchanger	Auxiliary Building	Туре С
Ar Ar	M327	Component Cooling Water to Reactor Vessel Support Coolers and RCP Coolers	Auxiliary Building	Туре С
nendment nendment	M320	Component Cooling Water from Reactor Vessel Support Coolers and RCP Coolers	Auxiliary Building	Туре С
No. 17(U No. 36(U	-	Flued Head to Guard Pipe Welds on all Hot Penetrations	Atmosphere, or Auxiliary Building, or Turbine Building	*
nit 2) nit 1)	M412	Equipment Hatch	Atmosphere	Type C

*Pursuant to Specification 4.6.1.2f.

TABLE 3.6-1(Continued)

SECONDARY CONTAINMENT BYPASS LEAKAGE PATHS

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PENETRATION NUMBER	SERVICE	RELEASE LOCATION	TEST <u>TYPE</u>
M280	Sample from Accumulator	Auxiliary Building	Туре С
M342	Auxiliary Seal Injection Line from Annulus to Reactor Coolant Pumps	Auxiliary Building	Туре С
M394	Ice from Rotary Valve Assembly to Ice Condenser Cyclone Receiver	Auxiliary Building	Туре С
M255	ILRT Pressure Impulse Line	Auxiliary Building	Type C
M323	Cont. Rad. Monitors EMF-38, 39, 40	Auxiliary Building	Type C
M118	Cont. Press Monitors	Auxiliary Building	Туре С
M118	ILRT Press Impulse Line (Unit 2)	Auxiliary Building	Type C
M239	Cont. Press Monitors	Auxiliary Building	Туре С
M239	Cont. Hydrogen Monitor "A" Train	Auxiliary Building	Туре С
M313	Cont. Press Monitors	Auxiliary Building	Туре С
M402	Cont. Press Monitors	Auxiliary Building	Type C
	Cont. Hydrogen Monitor "B" Train	Auxiliary Building	Туре С
M392	Air to Upper PAL Aux Bldg Side Door Seals	Auxiliary Building	Type C
M152	Air to Lower PAL Aux Bldg Side Door Seals	Auxiliary Building	Туре С

McGUIRE - UNITS 1 and

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Amendment No. 17 (Unit 2) Amendment No. 36 (Unit 1)



SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. Within 72 hours following each closing, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying that the seal leakage is less than 0.01 L as determined by precision flow measurements when measured for at least 30 seconds with the volume between the seals at a constant pressure of 14.8 psig,
- b. By conducting overall air lock leakage tests at not less than P_a , 14.8 psig, and verifying the overall air lock leakage rate is within its limit:
 - 1) At least once per\6 months, # and
 - Prior to establishing CONTAINMENT INTEGRITY when maintenance has been performed on the air lock that could affect the air lock sealing capability.*
- c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time, and
- At least once per 6 months by conducting a pressure test to verify door seal integrity, with a measured leak rate of less than 15 standard cubic centimeters per minute.

[#]The provisions of Specification 4.0.2 are not applicable.

*This constitutes an exemption to Appendix J of 10 CFR 50.

McGUIRE - UNITS 1 and 2

Amendment No.17(Unit 2) Amendment No.36(Unit 1)

INTERNAL PRESSURE

LIMITING CONDITION FOR OPERATION

3.6.1.4 Primary containment internal pressure shall be maintained between -0.3 and +0.3 psig.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

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With the containment internal pressure outside of the limits above, restore the internal pressure to within the limits within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.4 The primary containment internal pressure shall be determined to be within the limits at least once per 12 hours.

HYDROGEN CONTROL DISTRIBUTED IGNITION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.4.3 Both trains of the Hydrogen Mitigation System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one train of the Hydrogen Mitigation System inoperable, restore the inoperable system to OPERABLE status within 7 days or increase the surveillance interval of Specification 4.6.4.3.a from 92 days to 7 days on the OPERABLE train until the inoperable train is returned to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.6.4.3 Each train of the Hydrogen Mitigation System shall be demonstrated OPERABLE:

- a. At least once per 92 days by energizing the supply breakers and verifying that at least 32 of 33 igniters are energized,* and
- b. At least once per 18 months by verifying the temperature of each igniter is a minimum of 1700°F.

Inoperable igniters must not be on corresponding redundant circuits which provide coverage for the same region.

McGUIRE - UNITS 1 and 2

Amendment No.17 (Unit 2) Amendment No.36 (Unit 1)

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3/4.6.5 ICE CONDENSER

ICE BED

LIMITING CONDITION FOR OPERATION

3.6.5.1 The ice bed shall be OPERABLE with:

- a. The stored ice having a boron concentration of at least 1800 ppm boron as sodium tetraborate and a pH of 9.0 to 9.5,
- b. Flow channels through the ice condenser,
- c. A maximum ice bed temperature of less than or equal to 27°F,
- d. A total ice weight of at least 2,466,420 pounds at a 95% level of confidence, and
- e. 1944 ice baskets.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the ice bed inoperable, restore the ice bed to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUT-DOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.1 The ice condenser shall be determined OPERABLE:

- a. At least once per 12 hours by using the Ice Bed Temperature Monitoring System to verify that the maximum ice bed temperature is less than or equal to 27°F,
- b. At least once per 9 months by:
 - Chemical analyses which verify that at least nine representative samples of stored ice have a boron concentration of at least 1800 ppm as sodium tetraborate and a pH of 9.0 to 9.5 at 20°C;
 - 2) Weighing a representative sample of at least 144 ice baskets and verifying that each basket contains at least 1269 lbs of ice. The representative sample shall include 6 baskets from each of the 24 ice condenser bays and shall be constituted of

ICE CONDENSER DOORS

LIMITING CONDITION FOR OPERATION

3.6.5.3 The ice condenser inlet doors, intermediate deck doors, and top deck doors shall be closed and OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one or more ice condenser doors open or otherwise inoperable, POWER OPERATION may continue for up to 14 days provided the ice bed temperature is monitored at least once per 4 hours and the maximum ice bed temperature is maintained less than or equal to 27° F; otherwise, restore the doors to their closed positions or OPERABLE status (as applicable) within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

- 4.6.5.3.1 Inlet Doors Ice condenser inlet doors shall be:
 - a. Continuously monitored and determined closed by the inlet door position monitoring system, and
 - b. Demonstrated OPERABLE during shutdown at least once per 9 months by:
 - 1) Verifying that the torque required to initially open each door is less than or equal to 675 inch pounds;
 - Verifying that opening of each door is not impaired by ice, frost or debris;
 - 3) Testing a sample of at least 50% of the doors and verifying that the torque required to open each door is less than 195 inch-pounds when the door is 40 degrees open. This torque is defined as the "door opening torque" and is equal to the nominal door torque plus a frictional torque component. The doors selected for determination of the "door opening torque" shall be selected to ensure that all doors are tested at least once during two test intervals;

McGUIRE - UNITS 1 and 2

Amendment No. 17(Unit 2) Amendment No. 36(Unit 1)

SURVEILLANCE REQUIREMENTS (Continued)

4) Testing a sample of at least 50% of the doors and verifying that the torque required to keep each door from closing is greater than 78 inch-pounds when the door is 40 degrees open. This torque is defined as the "door closing torque" and is equal to the nominal door torque minus a frictional torque component. The doors selected for determination of the "door closing torque" shall be selected to ensure that all doors are tested at least once during two test intervals; and

5) Calculation of the frictional torque of each door tested in accordance with 3) and 4), above. The calculated frictional torque shall be less than or equal to 40 inch-pounds.

4.6.5.3.2 Intermediate Deck Doors - Each ice condenser intermediate deck door shall be:

- a. Verified closed and free of frost accumulation by a visual inspection at least once per 7 days, and
- b. Demonstrated OPERABLE at least once per 3 months during the first year after the ice bed is fully loaded and at least once per 18 months thereafter by visually verifying no structural deterioration, by verifying free movement of the vent assemblies, and by ascertaining free movement when lifted with the applicable force shown below:

	Door	Lifting Force
1)	Adjacent to crane wall	Equal to or less than 37.4 lbs,
2)	Paired with door adjacent to crane wall	Equal to or less than 33.8 lbs,
3)	Adjacent to containment wall	Equal to or less than 31.8 lbs, and
4)	Paired with door adjacent to containment wall	Equal to or less than 31.0 lbs.

4.6.5.3.3 Top Deck Doors - Each ice condenser top deck door shall be determined closed and OPERABLE at least once per 92 days by visually verifying:

- a. That the doors are in place, and
- b. That no condensation, frost, or ice has formed on the doors or blankets which would restrict their lifting and opening if required.

McGUIRE - UNITS 1 and 2

Amendment No. 17(Unit 2) Amendment No. 36(Unit 1)

. UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of DUKE POWER COMPANY

Docket Nos. 50-369 and 50-370

(McGuire Nuclear Station, Units 1 and 2)

EXEMPTION

I.

Duke Power Company (the licensee) is the holder of Facility Operating Licenses NPF-9 and NPF-17 which authorize the operation of the McGuire Nuclear Station, Units 1 and 2 (the facilities). The licenses provide, among other things, that they are subject to all rules, regulations, and Orders of the Nuclear Regulatory Commission (the Commission). The facilities comprise two pressurized water reactors at the licensee's site in Mecklenburg County, North Carolina.

II.

10 CFR 50, Appendix J, paragraph III.D.2(b)(ii) of the Commission's regulations requires overall containment airlock tests to be performed if an airlock is opened during Modes 5 or 6. An overall airlock leakage test at not less than P_a must be conducted prior to plant heatup and startup (i.e., entering Mode 4).

III.

By letter dated August 2, 1983, the licensee requested a change in the McGuire Nuclear Station Technical Specification 4.6.1.3.b which currently requires overall containment airlock leakage tests to be performed "...if opened when CONTAINMENT INTEGRITY was not required...." The proposed change would be to require the overall airlock leakage test to be performed "... when maintenance has been performed on the airlock that could affect the airlock sealing capability." This change requires an exemption from the requirements of Appendix J, to 10 CFR 50.

The existing airlock doors are so designed that a full pressure, i.e., (14.8 psig), test of an entire airlock can only be performed after strong backs (structural bracing) have been installed on the inner door. Strong backs are needed since the pressure exerted on the inner door during the test is in a direction opposite to that of the accident pressure direction. Installing strong backs, performing the test, and removing strong backs requires at least 6 hours per airlock (there are 2 airlocks) during which access through the airlock is prohibited.

If the periodic 6-month test of paragraph III.D.2(b)(i) of Appendix J and the test required by paragraph III.D.2(b)(iii) of Appendix J are current, no maintenance has been performed on the airlock, and the airlock is properly sealed, there should be no reason to expect the airlock to leak excessively just because it has been opened in Mode 5 or Mode 6. Accordingly, the staff finds that the licensee's proposed approach of relying on the seal leakage test of paragraph III.D.2(b)(iii) of Appendix J is acceptable when no maintenance has been performed on an airlock, and will not adversely affect maintaining containment integrity. Whenever maintenance has been performed on an airlock, the test requirement of paragraph III.D.2(b)(ii) of Appendix J must still be met.

IV.

Accordingly, the Commission has determined that an exemption in accordance with 10 CFR 50.12 is authorized by law, will not endanger life or property or

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the common defense and security and is otherwise in the public interest. Therefore, the requested exemption from the containment airlock test requirements of 10 CFR Part 50, Appendix J, Section III.D.2(b)(ii) is hereby granted.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of this exemption will have no significant impact on the environment (49 FR ³⁸⁴²⁵). This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Division of icensing Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland this ^{5th} day of October 1984.



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

SAFETY EVALUATION REPORT

RELATED TO AMENDMENT NO. 36 TO FACILITY OPERATING LICENSE NPF-9,

AMENDMENT NO. 17 TO FACILITY OPERATING LICENSE NPF-17

AND EXEMPTION FROM 10 CFR PART 50, APPENDIX J

DUKE POWER COMPANY

INTRODUCTION

By letter dated August 2, 1983, the licensee proposed certain changes to the facility Technical Specifications. This SER evaluates five of the proposed changes, concerning: 1) ice condenser inlet door surveillance; 2) containment air lock surveillance, 3) containment integrity, 4) bypass leakage; and 5) the distributed ignition system. The staff's evaluation of these proposed changes is presented herein.

EVALUATION

1) Ice condenser inlet door surveillance

The proposed changes would increase the surveillance interval for verifying that the ice condenser inlet doors can be opened and closed properly with the specified torque. The proposed changes would also increase the size of the sample required to be tested during each surveillance.

The surveillance interval would be changed from 6 months (3 months during the first year) to 9 months. Since this testing cannot be performed during unit operation, the existing specification requires a unit outage every 6 months to perform this surveillance. Changing the interval to 9 months would allow this testing to coincide with the outage to weigh ice baskets per Technical Specification 4.6.5.1.b.

It is also proposed that the sample size for verifying the "door opening torque" and "door closing torque" be increased from 25% to 50%. By testing a larger sample of doors, the change would result in each door being tested more frequently -- at least once per 18 months instead of 24 months under the existing specification -- despite the increased surveillance interval.

Justification for the increased surveillance interval is provided by the surveillance history at McGuire. The inlet door surveillance has been performed 10 times over a 2-year period on Unit 1 with no failures. It has also been performed one time on Unit 2 with no failures. This provides substantial confidence that the inlet doors would not develop problems during the proposed 9-month surveillance interval.

8410240363 841005 PDR ADDCK 05000369 P PDR One reason for the excellent surveillance history is a design change made to the door seals to prevent the doors from freezing closed. The old seal design, used at other plants, allowed condensation to collect at the seals and freeze the doors closed. The solution which was implemented at McGuire before initial startup was to redesign the door seals to prevent condensation from collecting.

The staff concludes, therefore, that the proposed changes to the Technical Specifications concerning ice condenser inlet door surveillance are acceptable.

2) Containment air lock surveillance

Technical Specification 4.6.1.3.b for the facility currently requires overall containment air lock leakage tests to be performed "... if opened when CONTAINMENT INTEGRITY was not required..." The proposed change would be to require the overall air lock leakage test to be performed "...when maintenance has been performed on the air lock that could affect the air lock sealing capability." This proposed change would require an exemption from the requirements of Appendix J to 10 CFR 50.

Paragraph III.D.2(b)(ii) of Appendix J states:

"Air locks opened during periods when containment integrity is not required by the plant's Technical Specifications shall be tested at the end of such periods at not less than P_a."

Whenever the plant is in cold shutdown (Mode 5) or refueling (Mode 6), containment integrity is not required. However, if an air lock is opened during Modes 5 or 6, paragraph III.D.2(b)(ii) of Appendix J requires that an overall air lock leakage test at not less than P be conducted prior to plant heatup and startup (i.e., entering Mode 4). The existing air lock doors are so designed that a full pressure, i.e., (14.8 psig), test of an entire air lock can only be performed after strong backs (structural bracing) have been installed on the inner door. Strong backs are needed since the pressure exerted on the inner door during the test is in a direction opposite to that of the accident pressure direction. Installing strongbacks, performing the test, and removing strongbacks requires at least 6 hours per air lock (there are 2 air locks) during which access through the air lock is prohibited.

If the periodic 6-month test of paragraph III.D.2(b)(i) of Appendix J and the test required by paragraph III.D.2(b)(iii) of Appendix J are current, no maintenance has been performed on the air lock, and the air lock is properly sealed, there should be no reason to expect the air lock to leak excessively just because it has been opened in Mode 5 or Mode 6.

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Accordingly, the staff concludes that the licensee's proposed approach of relying on the seal leakage test of paragraph III.D.2(b)(iii) of appendix J is acceptable when no maintenance has been performed on an air lock. Whenever maintenance has been performed on an air lock, the test requirement of paragraph III.D.2(b)(ii) of Appendix J must still be met by the licensee.

Therefore, an exemption from this requirement [10 CFR 50, Appendix J, paragraph III.D.2(b)(ii)] is justified and acceptable for McGuire, Units 1 and 2, and the licensee's proposed changes to the plant Technical Specifications concerning this subject are acceptable.

3) Containment Integrity

Specification 4.6.1.1.a of the T.S. requires that primary containment integrity be demonstrated at least once per 31 days by verifying that all penetrations not capable of being closed by operable containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions. However, valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed or otherwise secured in the closed position are excluded. These penetrations are verified closed during each cold shutdown except that such verification need not be performed more often than once per 92 days. The proposed change would revise the footnote to Specification 4.6.1.1.a to also exclude locked valves, blind flanges, and deactivated automatic valves located inside the annulus from the monthly surveillance requirements of 4.6.1.1.a. Surveillance would be performed during cold shutdown as required for components inside containment.

The purpose of the proposed change is to avoid the need for access to the annulus during operation to reduce radiation exposure to personnel. Portions of the annulus are considered high radiation areas during operation. This exception was previously approved by the staff for the Unit 1 Technical Specifications; however, it was inadvertently omitted when developing the combined Technical Specifications for both Units 1 and 2.

The proposed amendments would involve less frequent surveillance of the status of penetrations in the annulus. Because these penetrations are locked, sealed, or otherwise secured in the closed position, they can only be repositioned by personnel error. This is unlikely because access to the annulus during operation is restricted except for essential tasks. Therefore, the proposed change is not likely to have a significant effect on safety, and will reduce personnel exposure to radiation.

Therefore, for the reasons given above, the staff finds the proposed change to the Technical Specifications to be acceptable.

4) Bypass leakage

The proposed changes would include several additional penetrations in Table 3.6-1, Secondary Containment Bypass Leakage Paths. These penetrations were inadvertently omitted from the existing table due to administrative errors. All of these penetrations are currently included in the licensee's periodic surveillance program.

Because the proposed changes represent appropriate safety requirements and would involve requirements which are clearly more restrictive than the existing requirements, the staff finds the proposed changes to the Technical Specifications to be acceptable.

5) Distributed Ignition System

The proposed changes would revise the Limiting Condition for Operation and the Surveillance Requirements for the Primary Containment Distributed Ignition System to clarify that the system consists of two redundant trains. This is necessary to be consistent with the Action section of the Technical Specification.

Surveillance Requirement 4.6.4.3.a currently refers to 66 igniters total and requires the distributed ignition system to be demonstrated operable at least once per 92 days by energizing the power supply breakers and verifying that at least 64 of 66 igniters are energized. There are actually two trains of 33 igniters each. Because the Action Section implies that one train can be considered operable while the other train is inoperable, operability should be defined on a "per train" basis. The licensee proposes to change the wording to require that each train of the system be demonstrated operable with at least 32 of the 33 igniters energized when the power supply breakers are energized. The proposed changes would result in a more restrictive definition of operability when two igniters on the same train are inoperable; this condition would be acceptable under the existing specification but not under the proposed specification.

The proposed changes would clarify and correct the Technical Specifications, making them consistent with one another; the staff finds the proposed changes to the Technical Specifications to be acceptable.

ENVIRONMENTAL CONSIDERATION

The amendments involve a change in use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration, and there have been no public comments on such findings. Accordingly, the amendments

meet the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

Pursuant to 10 CFR 51.32 the Commission has determined that the issuance of the exemption will have no significant impact on the environment (49 FR 38425).

CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (48 FR 49717) on October 27, 1983, and consulted with the state of North Carolina. No public comments were received, and the state of North Carolina did not have any comments.

We have found that granting the proposed exemption from the requirements of Appendix J as discussed above is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest.

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: October 5, 1984

AMENDMENT NO. ³⁶ TO FACILITY OPERATING LICENSE NPF-9 - McGUIRE NUCLEAR STATION, UNIT 1 AMENDMENT NO. ¹⁷ TO FACILITY OPERATING LICENSE NPF-17 - McGUIRE NUCLEAR STATION, UNIT 2

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