

January 29, 1982

Docket No. 50-369

Mr. William O. Parker, Jr.  
Vice President Steam Production  
Duke Power Company  
P.O. Box 2178  
422 South Church Street  
Charlotte, North Carolina 28242

Dear Mr. Parker:

Subject: Issuance of Amendment No. 12 to Facility Operating License  
NPF-9 McGuire Nuclear Station, Unit 1

The Nuclear Regulatory Commission has issued Amendment No. 12 to Facility Operating License NPF-9 for the McGuire Nuclear Station, Unit 1, located in Mecklenburg County, North Carolina. The amendment consists of a change to the Technical Specifications in response to your application telecopied to us on January 11, 1982. This amendment was authorized by telephone on January 11, 1982, and was confirmed by letter dated January 12, 1982.

This amendment changes the Technical Specifications to reduce the Boron Injection Tank concentration for a period of seven days. This amendment was issued on an expedited basis to permit McGuire to return to power during a record peak demand period.

A copy of the related safety evaluation report supporting Amendment No. 12 to Facility Operating License NPF-9 is enclosed. Also enclosed is a copy of a related notice which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

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

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PDR ADOCK 05000369  
P PDR

Enclosures:

- 1. Amendment No. 12
- 2. Safety Evaluation
- 3. Federal Register Notice

cc w/encl:  
See next page

*RAB*

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DATE	1/29/82	1/19/82	1/28/82				

McGuire

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San Francisco, California 94104

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The Carolina Environmental Study Group  
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Department of Justice  
Justice Building  
Raleigh, North Carolina 27602

Office of Intergovernmental Relations  
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County Manager of Mecklenburg County  
720 East Fourth Street  
Charlotte, North Carolina 28202

Mr. Bruce Blanchard  
Environmental Projects Review  
Department of the Interior  
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U.S. Environmental Protection Agency  
Region IV Office  
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Chairman, North Carolina  
Utilities Commission  
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Raleigh, North Carolina 27602

Dr. John M. Barry  
Department of Environmental Health  
Mecklenburg County  
1200 Blythe Boulevard  
Charlotte, North Carolina 28203

Mr. Paul Bemis  
Resident Inspector McGuire NPS  
c/o U.S. Nuclear Regulatory Commission  
P.O. Box 216  
Cornelius, North Carolina 28031

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DUKE POWER COMPANY

DOCKET NO. 50-369

MCGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 12  
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 January 11, 1982, 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, 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:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 12, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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3. This license amendment was effective January 11, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

31  
Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing

Attachment:  
Technical Specification  
changes

Date of Issuance: January 29, 1982

\*NOTE: SEE PREVIOUS WHITE FOR CONCURRENCE

OFFICE ▶	...LA:DL:LB #4	...DL:LB #4	...ORAB	...OELD	...DL:LB #4	...DL:LB #4	...
SURNAME ▶	*MDuncan/hmc	*RBirkel	*GHolahan	*EKetchen	EAdensam	RStedisco	...
DATE ▶	...1/19/82	...1/19/82	...1/19/82	...1/22/82	...1/11/82	...1/08/82	...

3. This license amendment ~~is~~ <sup>was</sup> effective as of ~~its date of issuance~~ <sup>January 11, 1982</sup>

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:  
Technical Specification  
changes

Date of Issuance:

*E.K. Amend. subject to comment.  
& F.R. Notice only.*

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SURNAME	MDuncan/hmc	RBirke1	GHolahan	Ketchen	EAdensam	RTedesco	
DATE	1/9/82	1/19/82	1/9/82	1/22/82	1/ /82	1/ /82	

ATTACHMENT TO LICENSE AMENDMENT NO. 12

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

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>		<u>Amended</u>
<u>Page</u>		<u>Page</u>
3/4	5-12	3/4 5-11

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## EMERGENCY CORE COOLING SYSTEMS

### 3/4.5.4 BORON INJECTION SYSTEM

#### BORON INJECTION TANK

#### LIMITING CONDITION FOR OPERATION

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3.5.4.1 The boron injection tank shall be OPERABLE with:

- a. A minimum contained borated water volume of 900 gallons,
- b. Between 20,000 and 22,500 ppm of boron,\* and
- c. A minimum solution temperature of 145°F.

APPLICABILITY: MODES 1, 2 and 3.

#### ACTION:

With the boron injection tank inoperable, restore the tank to OPERABLE status within 1 hour or be in HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to 1%  $\Delta k/k$  at 200°F within the next 6 hours; restore the tank to OPERABLE status within the next 7 days or be in HOT SHUTDOWN within the next 12 hours.

#### SURVEILLANCE REQUIREMENTS

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4.5.4.1 The boron injection tank shall be demonstrated OPERABLE by:

- a. Verifying the contained borated water volume at least once per 7 days,
- b. Verifying the boron concentration of the water in the tank at least once per 7 days, and
- c. Verifying the water temperature at least once per 24 hours.

\*For a period of seven days commencing on January 11, 1982, and running through January 18, 1982, the boron injection tank shall be OPERABLE with between 2,000 and 22,500 ppm of boron.

## EMERGENCY CORE COOLING SYSTEMS

### HEAT TRACING

#### LIMITING CONDITION FOR OPERATION

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3.5.4.2 At least two independent channels of heat tracing shall be OPERABLE for the boron injection tank and for the heat traced portions of the associated flow paths.

APPLICABILITY: MODES 1, 2 and 3.

#### ACTION:

With only one channel of heat tracing on either the boron injection tank or on the heat traced portion of an associated flow path OPERABLE, operation may continue for up to 30 days provided the tank and flow path temperatures are verified to be greater than or equal to 145°F at least once per 8 hours; otherwise, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.

#### SURVEILLANCE REQUIREMENTS

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4.5.4.2 Each heat tracing channel for the boron injection tank and associated flow path shall be demonstrated OPERABLE:

- a. At least once per 31 days by energizing each heat tracing channel, and
- b. At least once per 24 hours by verifying the tank and flow path temperatures to be greater than or equal to 145°F. The tank temperature shall be determined by measurement. The flow path temperature shall be determined by either measurement or recirculation flow until establishment of equilibrium temperatures within the tank.



SAFETY EVALUATION BY THE  
OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 12  
TO LICENSE NPF-9  
DUKE POWER COMPANY

INTRODUCTION

As a result of a reactor trip and safety injection (due to frozen instrument line) on January 11, 1982, the Boron Injection Tank (BIT) discharged its concentrated boric acid into the reactor coolant system. According to Technical Specification 3/4.5.4 the plant could not restart until the boron concentration in the BIT was returned to 20,000 PPM. To prevent a delay in restarting the plant, the licensee requested a temporary Technical Specification change.

DISCUSSION

The Boron Injection Tank provides for rapid injection of boron following a Safety Injection signal. This injection of boron helps mitigate the reactivity transient resulting from a steamline break (particularly for the design basis case, including a stuck rod). Long term shutdown of the plant following a steamline break is assured by the injection of borated water from the Refueling Water Storage Tank.

The licensee's letter of January 11, 1982, indicates that the existing safety analysis of the steamline break accident is based on an assumed end-of-life moderator temperature coefficient of -41 PCM/ F, a shutdown margin of 1.6%, and a BIT boric acid concentration of 20,000 PPM. The letter also indicates that the current plant conditions corresponding to the beginning of the first cycle are: a moderator temperature coefficient of -10 PCM/ F and a shutdown margin of 3.27%. The licensee concluded that a steamline break under the present conditions would be much less severe than the conditions analyzed in the FSAR.

EVALUATION

The staff has evaluated the effect of reducing the required boric acid concentration in the BIT from 20,000 PPM to 2,000 PPM, for a seven day period. We agree with the licensee's conclusions, relative to the consequences of a steamline break, that the reduction in the BIT boric acid concentration would be more than offset by the reduced reactivity insertion associated with the less negative moderator temperature coefficient and the increased shutdown margin associated with the present conditions and the mode of operation. The seven day limitation for the proposed Technical Specification assures that no significant change in the moderator temperature coefficient or shutdown margin will occur.

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Based on the information provided by the licensee and our independent assessment of the acceptability of the consequences of a postulated steamline break accident, we conclude that the proposed modification to Technical Specification 3/4.5.4 will not result in an undue risk to the health and safety of the public. The proposed change is therefore acceptable.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

CONCLUSION

We have concluded, based on the consideration discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: January 29, 1982

Principal Contributor: G. Holahan, ORAB

*NR 2517*

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UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-369

DUKE POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT

TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 12 to Facility Operating Licensing No. NPF-9, issued to Duke Power Company (licensee) for the McGuire Nuclear Station, Unit 1 (the facility) located in Mecklenburg County, North Carolina.

The amendment was authorized by telephone on January 11, 1982, and was confirmed by letter on January 12, 1982. The amendment changes the Technical Specifications to reduce the Boron Injection Tank concentrations for a period of seven days. This amendment was issued on an expedited basis to permit McGuire to return to power during a peak demand period.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this

amendment. 8202080103 820129  
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For further details with respect to this action, see (1) Duke Power Company letter dated January 11, 1982, (2) Amendment No. 12 to Facility Operating License No. NPF-9 with Appendix A Technical Specification page change, and (3) the Commission's related Safety Evaluation.

All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C., and the Atkins Library, University of North Carolina, Charlotte (UNCC Station), North Carolina 28223. A copy of Amendment No. 12 and the Commission's related Safety Evaluation may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 29<sup>th</sup> day of January 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

51

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

\*NOTE: SEE PREVIOUS WHITE FOR CONCURRENCE

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For further details with respect to this action, see (1) Duke Power Company letter dated January 11, 1982, (2) Amendment No. 12 to Facility Operating License No. NPF-9 with Appendix A Technical Specification page change, and (3) the Commission's related Safety Evaluation.

All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C., and the Atkins Library, University of North Carolina, Charlotte (UNCC Station), North Carolina 28223. A copy of Amendment No. 12 <sup>and the Commission's related Safety Evaluation</sup> may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this            day of

FOR THE NUCLEAR REGULATORY COMMISSION

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

*PAB*  
*E.K. Amend.*  
*F.R. notice*  
*only subj. to*  
*comment on F.R.*

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JANUARY 28 1982

Docket No. 50-369

MEMORANDUM FOR: Robert L. Tedesco, Assistant Director  
 for Licensing  
 Division of Licensing

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

FROM: Ralph A. Birkel, Project Manager  
 Licensing Branch No. 4  
 Division of Licensing

SUBJECT: ISSUANCE OF AMENDMENT NO. 12 TO FACILITY OPERATING  
 LICENSE NPF-9 McGUIRE NUCLEAR STATION, UNIT 1

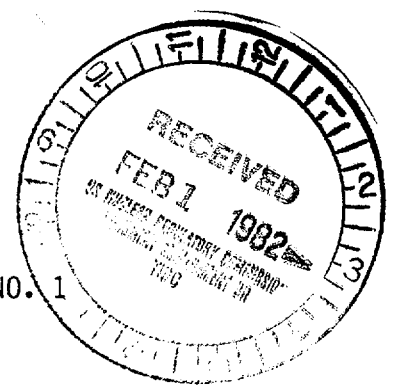
There is no known public correspondence or irreversible impact associated with the issuance of the subject amendment.

*181*  
 Ralph A. Birkel, Project Manager  
 Licensing Branch No. 4  
 Division of Licensing

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 P PDR

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DATE	1/19/82	1/19/82	1/19/82				

AMENDMENT NO. 12 TO  
FACILITY OPERATING LICENSE NPF-9 - McGUIRE NUCLEAR STATION, UNIT NO. 1



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