



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

July 19, 1988

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. 89 TO FACILITY OPERATING LICENSE NPF-9 AND
AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE NPF-17 - MCGUIRE
NUCLEAR STATION, UNITS 1 AND 2 (TACS 68166/68187)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 89 to Facility Operating License NPF-9 and Amendment No. 70 to Facility Operating License NPF-17 for the McGuire Nuclear Station, Units 1 and 2. These amendments consist of changes to the Technical Specifications (TS) in response to your application dated May 6, 1988.

The amendments change the Technical Specifications (TS) by extending application of "F-star" steam generator tube plugging criterion for the life of the units. The amendments are effective as of their date of issuance.

One of your proposed changes would have changed the schedule for submittal of a report on the results of inspection of F-star tubes. Specifically, the requirement in TS 4.4.5.5c for submittal prior to the restart of the unit following the inspection would have been changed to require submittal within 15 days following the completion of the inspection. The Commission wishes to be informed in a timely manner in the unlikely event that an unfavorable result or trend associated with F-star tubes should be observed. Therefore, we have opted to retain the existing reporting schedule of TS 4.4.5.5c. Also enclosed is a copy of a notice regarding denial of this part of your request which has been forwarded to the Office of the Federal Register for publication.

A copy of the related safety evaluation supporting Amendment No. 89 to Facility Operating License NPF-9 and Amendment No. 70 to Facility Operating License NPF-17 is enclosed.

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Mr. H. B. Tucker

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July 19, 1988

Notice of issuance of amendments will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

Original signed by:

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects I/II

Enclosures:

1. Amendment No. 89 to NPF-9
2. Amendment No. 70 to NPF-17
3. Safety Evaluation
4. FR Notice

cc w/enclosures:
See next page

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MRood
6/26/88

PD#II-3/DRP-I/II
DHood:sw
6/28/88

ECB
CCheng
6/28/88

PD#II-3/DRP-I/II
DMatthews
7/8/88

DATED: July 19, 1988

AMENDMENT NO. 89 TO FACILITY OPERATING LICENSE NPF-9 - McGuire Nuclear Station, Unit 1
AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE NPF-17 - McGuire Nuclear Station, Unit 2

DISTRIBUTION:

Docket File

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M. Rood	14-H-25
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ACRS (10)	H-1016
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July 19, 1988

DOCKET NO.s. 50-369/370

MEMORANDUM FOR: Rules and Procedures Branch
 Division of Rules and Records
 Office of Administration

FROM: Office of Nuclear Reactor Regulation

SUBJECT: McGuire Nuclear Station, Units 1 and 2 (Duke Power Company)

One signed original of the *Federal Register* Notice identified below is enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (5) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Consideration of Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
- Order.
- Exemption.
- Notice of Granting Exemption.
- Environmental Assessment.
- Notice of Preparation of Environmental Assessment.
- Other: ~~Denial of Amendments to Facility Operating Licenses and Opportunity for Hearing~~

~~NOTE: PLEASE INSERT A DATE (30 DAYS FROM PUBLICATION) IN LAST PARAGRAPH OF FIRST PAGE.~~

Office of Nuclear Reactor Regulation

Enclosure:
 As stated

Contact: Marilee Rood
 Phone: 21487

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OFFICE ▶	... NRR:PDII-3						
SURNAME ▶	... MRood						
DATE ▶	... 7/19/88						



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. 89
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 (the licensee) dated May 6, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and 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 rules and 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 amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - 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.

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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. 89, are hereby incorporated into the 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

Original signed by:

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II

Attachment:
Technical Specification
Changes

Date of Issuance: July 19, 1988

OFFICIAL RECORD COPY

LA:PDII-3
MRood
6/27/88

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PM:PDII-3
DHood:sw
6/27/88

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CCheng
6/28/88

OGC-WF
6/29/88


D:PDII-3
DMatthews
7/18/88



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. 70
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 (the licensee) dated May 6, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and 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 rules and 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 amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - 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. 70, are hereby incorporated into the 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

Original signed by:

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II

Attachment:
Technical Specification
Changes

Date of Issuance: July 19, 1988

OFFICIAL RECORD COPY

LA:PDII-3
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ATTACHMENT TO LICENSE AMENDMENT NO. 89

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 70

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 vertical lines indicating the areas of change.

Amended Page

3/4 4-14

3/4 4-15

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.5.4 Acceptance Criteria

a. As used in this specification:

- 1) Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness, if detectable, may be considered as imperfections;
- 2) Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube;
- 3) Degraded Tube means a tube containing imperfections greater than or equal to 20% of the nominal wall thickness caused by degradation;
- 4) % degradation means the percentage of the tube wall thickness affected or removed by degradation;
- 5) Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective;
- 6) Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service and is equal to 40% of the nominal tube wall thickness. This definition does not apply to the area of the tubesheet region below the F* distance provided the tube is not degraded (i.e., no indications of cracking) within the F* distance.
- 7) Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 4.4.5.3c, above;
- 8) Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg; and

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- 9) Preservice Inspection means an inspection of the full length of each tube in each steam generator performed by eddy current techniques prior to service to establish a baseline condition of the tubing. This inspection shall be performed after the field hydrostatic test and prior to initial POWER OPERATION using the equipment and techniques expected to be used during subsequent inservice inspections.
 - 10) F* Distance is the distance into the tubesheet from the top face of the tubesheet or the top of the last hardroll, whichever is lower (further into the tubesheet) that has been conservatively chosen to be 2 inches.
 - 11) F* TUBE is a tube with degradation equal to or greater than 40%, below the F* distance and not degraded (i.e., no indications of cracking) in the F* distance.
- b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 4.4-2.

4.4.5.5 Reports

- a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2;
- b. The complete results of the steam generator tube inservice inspection shall be submitted to the Commission in a Special Report pursuant to Specification 6.9.2 within 12 months following the completion of the inspection. This Special Report shall include:
 - 1) Number and extent of tubes inspected,
 - 2) Location and percent of wall-thickness penetration for each indication of an imperfection, and
 - 3) Identification of tubes plugged.
- c. The results of inspections of F* tubes shall be reported to the Commission in a report, prior to the restart of the unit following the inspection. This report shall include:
 - 1) Identification of F* tubes, and
 - 2) Location and size of the degradation.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 89 TO FACILITY OPERATING LICENSE NPF-9
AND AMENDMENT NO. 70 TO FACILITY OPERATING LICENSE NPF-17

DUKE POWER COMPANY

DOCKET NOS. 50-369 AND 50-370

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

1.0 INTRODUCTION

By letter dated May 6, 1988, Duke Power Company (the licensee) proposed amendments to delete a footnote "NOTE 1" from Technical Specification (TS) 4.4.5.4 associated with steam generator tube plugging acceptance criteria. Note 1 states that "The application of F* expires at the end of the fifth fuel cycle for each respective unit." Removal of this footnote, in effect, would authorize the application of F* for the life of the units. The licensee also proposed that the NRC addressee for receipt of a report on the results of inspections of F* tubes be deleted from TS 4.4.5.5c.

2.0 EVALUATION

On August 19, 1986, by previous Amendments 59 (Unit 1) and 40 (Unit 2), the Commission revised the McGuire TSs to incorporate a distance, designated F* and identified as the F-star criterion, below the top of the steam generator tubesheet below which tube degradation of any extent does not necessitate plugging. In the SER for Amendments 59 and 40, the Commission concluded that tubes can safely be left in-service with degradation located below the F* distance. This represented the initial approval by the Commission for a plant to operate using F* criterion. Accordingly, the Commission concluded at that time that until behavior of F* tubes had been confirmed by actual operation, approval of these amendments should be limited to about two cycles of operation for each McGuire unit. The Commission has subsequently approved use of F* criteria on other nuclear plants which, like McGuire, use Westinghouse Model D steam generators (e.g., Catawba 1 and 2, V. C. Summer).

By application dated May 6, 1988, the licensee provided results of operating experience (328 tubes left in service) at McGuire 1 and 2 using F* criterion. The McGuire results demonstrate that the use of the F* criterion has had no adverse impact on any aspect of steam generator operability; no significant change in primary-to-secondary coolant leak rates and no degradation of tubesheet material have occurred. The experiences at other nuclear plants using F* criterion have also been favorable. The F* criterion is also noted to have had a positive impact on the reduction of personnel radiation exposure.

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Because the subsequent operating experience at McGuire and elsewhere has met all criteria for continued operation and demonstrates no adverse effects or trends, we conclude that the limitation of F* to the end of the fifth fuel cycle is no longer needed and that the F* criterion may be extended for the life of the McGuire units. Accordingly, removal of the footnote is acceptable.

TS 4.4.5.5c presently specifies that the results of inspections of F* tubes are to be reported "to the Director, ONRR." This is inconsistent with instructions for mailings to the NRC as specified by recent changes in regulation (10 CFR 50.4). The proposed change to remove the specified NRC addressee for receipt of the report provides for submittal consistent with the regulation. We find this part of the proposed amendments to be purely administrative and acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. 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 exposure. The NRC staff has made a determination that the amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 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 these amendments.

4.0 CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (53 FR 22400) on June 15, 1988. The Commission 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 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.

Principal Contributor: D. Hood, PD#II-3/DRP-I/II

Dated: July 19, 1988

UNITED STATES NUCLEAR REGULATORY COMMISSIONDUKE POWER COMPANYDOCKET NOS. 50-369 AND 50-370DENIAL OF AMENDMENTS TO FACILITY OPERATINGLICENSES AND OPPORTUNITY FOR HEARING

The U. S. Nuclear Regulatory Commission (the Commission) has denied a portion of a request by the licensee for amendments to Facility Operating License Nos. NPF-9 and NPF-17 issued to Duke Power Company (the licensee) for operation of the McGuire Nuclear Station, Units 1 and 2, (the facility), located in Mecklenburg County, North Carolina.

The denied portion of the proposed amendments would have revised the schedule for submittal of a report on the results of inspection of F-star steam generator tubes. The requirement for submittal prior to the restart of the unit following inspection would have been changed to require submittal within 15 days following the completion of the inspection. Notice of consideration of issuance of the amendments was published in the FEDERAL REGISTER on June 15, 1988 (53 FR 22400). The licensee's application for the amendments was dated May 6, 1988.

The request was found unacceptable since the NRC staff wishes to be informed in a timely manner in the event that an unfavorable result or trend associated with F-star tubes should be observed.

The licensee was notified of the Commission's denial of this request by letter dated July 19, 1988 .

By August 25, 1988, the licensee may demand a hearing with respect to the denial described above and any person whose interest may be affected by this proceeding may file a written petition for leave to intervene.

A request for a hearing or petition for leave to intervene must be filed with the Secretary of the Commission, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., by the above date.

A copy of any petitions should also be sent to the Office of the General Counsel, U. S. Nuclear Regulatory Commission, Washington, D. C., 20555, and to Mr. Albert Carr, Duke Power Company, 422 South Church Street, Charlotte, North Carolina 28242, attorney for the licensee.

For further details with respect to this action, see (1) the application for amendments dated May 6, 1988, and (2) the Commission's letter to Duke Power Company dated July 18, 1988, which are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C., and at the Atkins Library, University of North Carolina, Charlotte (UNCC Station), North Carolina 28223. A copy of item (2) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Reactor Projects I/II.

Dated at Rockville, Maryland, this 18th day of July 1988 .

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

Darl Hood, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II

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06/29/88

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DMatthews
07/8/88

Mr. H. B. Tucker
Duke Power Company

McGuire Nuclear Station

cc:

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