

Docket Nos.: 50-369
and 50-370

June 5, 1987

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. 72 to Facility Operating License NPF-9 and
Amendment No. 53 to Facility Operating License NPF-17 - McGuire
Nuclear Station, Units 1 and 2 (TACS 61179/61180)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 72 to Facility Operating License NPF-9 and Amendment No. 53 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 March 19, 1986, as supplemented December 3, 1986, and June 4, 1987.

The amendments change Technical Specification Figure 5.1-4 to add another discharge point from the Conventional Wastewater Basin into the Catawba River. The amendments are effective as of their date of issuance.

A copy of the related safety evaluation supporting Amendment No. 72 to Facility Operating License NPF-9 and Amendment No. 53 to Facility Operating License NPF-17 is enclosed.

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

Sincerely,

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

Enclosures:

1. Amendment No. 72 to NPF-9
2. Amendment No. 53 to NPF-17
3. Safety Evaluation

cc w/enclosures: See next page

PD#II-3/DRP-I/II
MDuncan/mac
06/5/87

DSH
PD#II-3/DRP-I/II
DHood
06/5/87

PD#II-3/DRP-I/II
BJYoungblood
06/5/87

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McGuire Nuclear Station

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DATED: June 5, 1987

AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NPF-9 - McGuire Nuclear Station, Unit 1
AMENDMENT NO. 53 TO FACILITY OPERATING LICENSE NPF-17 - McGuire Nuclear Station, Unit 2

DISTRIBUTION:

Docket File 50-369/370

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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. 72
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 March 19, 1986, as supplemented December 3, 1986 and June 4, 1987, 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. 72 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

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B. J. Youngblood, Director
Project Directorate II-3
Division of Reactor Projects-I/II

Attachment:
Technical Specification
Changes

Date of Issuance: June 5, 1987

PD#II-3/DRP-II/I
MDuncan:mac
06/5/87

DSH
PD#II-3/DRP-I/II
DHood
06/5/87

Can for
NRR/PRPB
LCunningham
06/5/87

OGC/BETH
Woodhead
06/5/87

BJYoungblood
06/5/87



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. 53
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 March 19, 1986, as supplemented December 3, 1986 and June 4, 1987, 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.53, 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

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B. J. Youngblood, Director
 Project Directorate II-3
 Division of Reactor Projects-I/II

Attachment:
 Technical Specification
 Changes

Date of Issuance: June 5, 1987

mac
 PD#II-3/DRP-II/I
 MDuncan:mac
 06/5/87

DSH
 PD#II-3/DRP-I/II
 DHood
 06/5/87

carf
 NRR/PRPB
 LCunningham
 06/5/87

[Signature]
 OGC/BETH
 06/5/87

[Signature]
 PD#II-3/DRP-I/II
 BYoungblood
 06/5/87

ATTACHMENT TO LICENSE AMENDMENT NO. 72

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 53

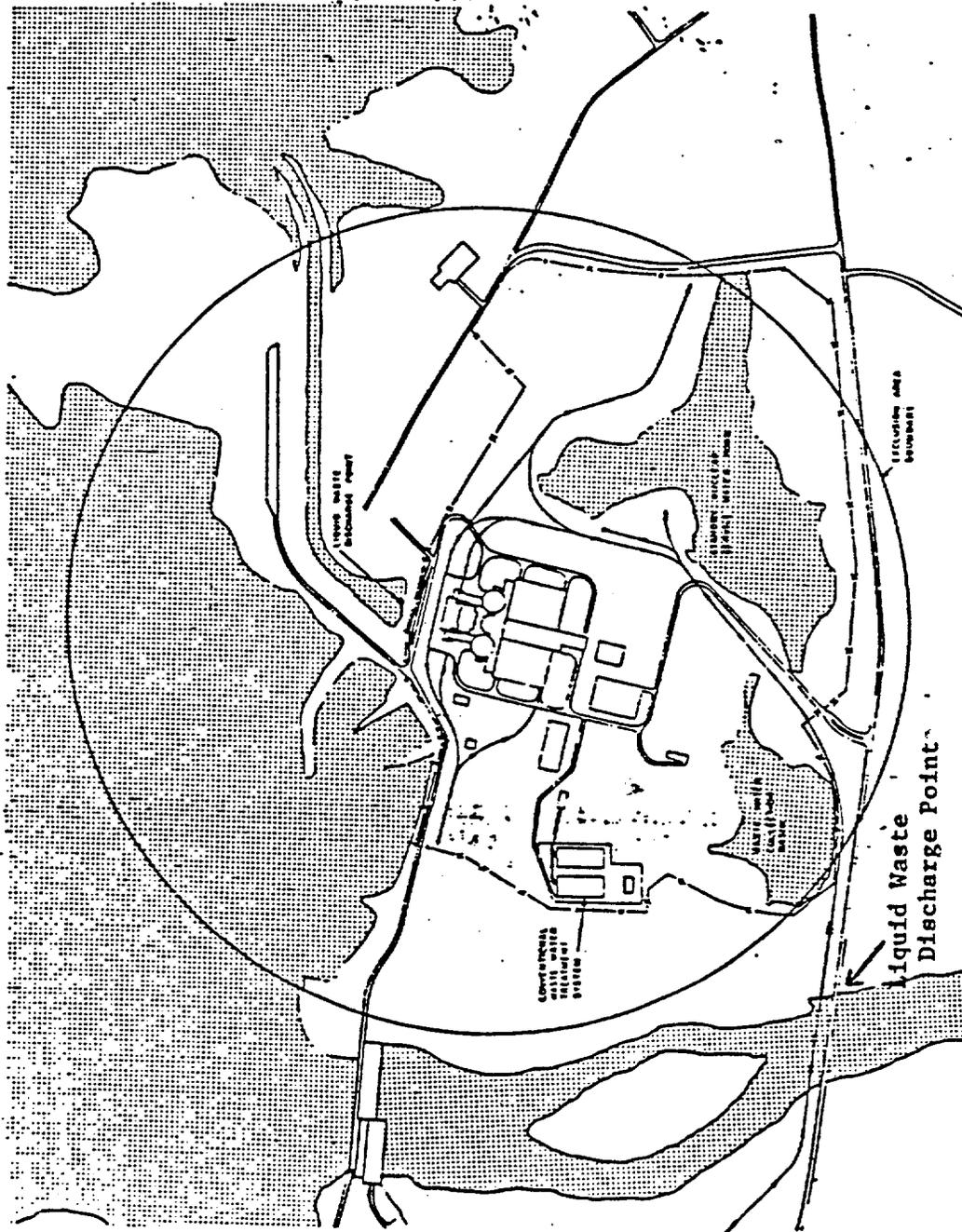
FACILITY OPERATING LICENSE NO. NPF-17

DOCKET NO. 50-370

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

Amended
Page

5-5



SITE BOUNDARY FOR
LIQUID EFFLUENTS
McGUIRE NUCLEAR STATION

FIGURE 5.1-4



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NPF-9
AND AMENDMENT NO. 53 TO FACILITY OPERATING LICENSE NPF-17

DUKE POWER COMPANY

DOCKET NOS. 50-369 AND 50-370

McGUIRE NUCLEAR STATION, UNITS 1 AND 2

INTRODUCTION

Existing Technical Specification (TS) 3.11.1.1 and its referenced Figure 5.1-4, "Site Boundary for Liquid Effluents" define the authorized discharge point for radioactive material released in liquid effluents to unrestricted areas as being only to Lake Norman, an upstream impoundment of the Catawba River. By letter dated March 19, 1986, Duke Power Company (the licensee) requested a change to the TSs for McGuire Nuclear Station, Units 1 and 2. This proposed change would modify Figure 5.1-4 to add a new release point for radioactive liquids and thereby permit the release of liquids containing trace quantities of radioactivity into the Catawba River, via the conventional waste water treatment system. The change would affect only the discharge location, and would not increase existing TS limits regarding (1) the quantity of radioactive material contained in the treatment pond, (2) allowable doses to the public from releases to unrestricted areas, and would not decrease existing TS requirements regarding liquid discharge monitoring. The licensee provided additional information to support the request by letters dated December 3, 1986 and June 4, 1987.

The change would be accomplished by deleting from TS Figure 5.1-4 an existing, obsolete footnote which authorized a one-time discharge to the Catawba River on June 20, 1986, but retaining the existing arrow at the river and its label, "Liquid Waste Discharge Point." (The existing arrow, label, and footnote were added in response to a separate application by the licensee submitted subsequent to the March 19, 1986 request.)

EVALUATION

The McGuire plant is designed to release radioactive liquid effluents to Lake Norman and effluent controls are based on the concentrations of activity at the point of release to Lake Norman. The outflow from Lake Norman is into the Catawba River. Conventional ("non-radioactive") waste water is released through another discharge point directly to the Catawba River.

Water from the turbine building sump is normally released through the conventional wastewater treatment system. The quantity of radioactive material contained in each treatment pond, and in each batch of slurry (used power resins) to be transferred to the treatment ponds, is limited consistent with 10 CFR 20, Appendix B, Table II by existing TS 3/4.11.1.5 and is not changed

by these amendments. There are provisions for releasing turbine building sump water through the liquid radwaste system if the sump water is contaminated with radioactivity. The liquid radwaste system is capable of processing 27,500 gpd, whereas the turbine building sumps can add up to 120,000 gpd during operation with primary to secondary leakage. Thus, the liquid radwaste system is not capable of handling the turbine sump discharge on a continuing basis as would be required by the present technical specifications if there were small steam generator tube leaks. Furthermore, when low levels of radioactivity are detected in a large pond (e.g., in one of the two 2.5 million gallon settling ponds of the conventional wastewater treatment system) release through the liquid radwaste system is impracticable. The licensee investigated several alternatives to the proposed additional release point and concluded that other possible solutions were unduly costly and were unwarranted in view of the low levels of radioactivity and doses involved. Therefore the licensee requested approval to release low level liquid radwaste through the conventional wastewater treatment system.

The TS change does not decrease the existing monitoring requirements (TS 3.3.3.8 and referenced TS Table 3.3-12) which assure that instantaneous radioactive release rates remain within 10 CFR 20, Appendix B limits, and that radioactive liquid effluent monitoring instrumentation remains operable or appropriate compensatory action taken. There are provisions for sampling and monitoring the water going into, and being released from, the conventional waste water system. The licensee has committed to make these measurements with the sensitivity necessary to assure that the concentrations are below the levels needed for compliance with the dose design objectives of 10 CFR 50 Appendix I. Specifically, the licensee committed to maintaining a lower limit of detection of 0.1 pCi/L or less for Cs-137. These provisions satisfy General Design Criterion 64 which require that a means be provided for monitoring effluent discharge paths.

The dose or dose commitment to a member of the public from radioactive materials in liquid effluents released from each McGuire unit is limited consistent with 10 CFR 50, Appendix I by existing TS 3/4.11.1.2 and is not changed by these amendments. The licensee has committed to ensuring that the use of this new release point does not increase the total permitted release from the station. To accomplish this, doses at both the new and old release points will be added and the total will be maintained below the limits of Technical Specification 3.11.1.2.

The concentration of radioactive material released in liquid effluents to unrestricted areas is limited consistent with 10 CFR 10, Appendix B, Table II by existing TS 3/4.11.1.1 and is not changed by these amendments. The change also, will not increase the concentration of radioactivity in the Catawba River. The radioactive material that is released to Lake Norman reaches the Catawba River after some delay. Use of the new release point is a more direct release path for some of the material into the River. This will lower concentrations in Lake Norman without materially changing the concentrations in the River. This is true because almost all of the activity released by the new pathway will be relatively long lived (i.e. tritium and Cs-137) which are not affected by the delay. Also in the low concentrations permitted by the technical specifications the short lived materials are inconsequential.

The staff concludes that this proposed technical specification change is in accordance with release requirements of 10 CFR Part 50.36a, Part 50 Appendix I and 10 CFR 20 Appendix B; and in accordance with 10 CFR Part 50 Appendix A, General Design Criterion 64 requirements for monitoring radioactivity releases. The change does not increase the liquid effluent release rates or the annual dose resulting from station liquid effluent releases. Thus, although the effluent release path is changed, neither the dose, quantity nor concentration of radioactive effluent in the River is changed. Therefore the proposed change is acceptable.

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. 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.

CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register (51 FR 36088) on October 8, 1986. The licensee's subsequent submittals dated December 3, 1986, and June 4, 1987, do not alter the scope of the licensee's requested amendments as described in the October 8, 1986 Federal Register; nor do they affect the Commission's proposed no significant hazards consideration determination. 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 Contributors: D. Hood, PD#II-3
C. Willis, PRPB

Dated: June 5, 1987