September 23, 1981

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. 5 to Facility Operating License NPF-9 - McGuire Nuclear Station, Unit 1

The Nuclear Regulatory Commission has issued Amendment No. 5 to Facility Operating License NPF-9 for the McGuire Nuclear Station, Unit 1, located in Mecklenburg County, North Carolina.

This amendment is in response to your letter dated September 21, 1981. This amendment corrects the setpoint associated with the reactor trip initiated by a turbine trip.

A copy of the related safety evaluation report supporting Amendment No. 5 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,

/s/

Elinor G. Adensam, Acting Chief
Licensing Branch No. 4
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 5
2. Safety Evaluation
3. Federal Register Notice

cc w/encl:
See next page

ELD 9/22

CONSTRUCTION PERMIT

OFFICE	LA:DL:LB #4	DL:LB #4	DL:LB #4				
SURNAME	MDuncan/tmc	RBirkel	EAdensam				
DATE	9/24/81	9/22/81	9/23/81				

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

cc: Mr. W. L. Porter
Mr. A. Carr
Duke Power Company
P.O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

Mr. R. S. Howard
Power Systems Division
Westinghouse Electric Corp.
P.O. Box 355
Pittsburgh, Pennsylvania 1530

Mr. E. J. Keith
EDS Nuclear Incorporated
220 Montgomery Street
San Francisco, California 94104

Mr. J. E. Houghtaling
NUS Corporation
2536 Countryside Boulevard
Clearwater, Florida 33515

Mr. Jesse L. Riley, President
The Carolina Environmental Study Group
854 Henley Place
Charlotte, North Carolina 28207

J. Michael McGarry, III, Esq.
DeBevoise & Liberman
1200 Seventeenth Street, N.W.
Washington, D. C. 20036

Ms. M. J. Graham
Resident Inspector McGuire NPS
c/o U.S. Nuclear Regualtory Commission
P.O. Box 216
Cornelius, North Carolina 28031

Shelley Blum, Esq.
1716 Scales Street
Raleigh, North Carolina 27608

Mr. David E. Smith
City of Charlotte
Legal Department
City Hall
600 E. Trade Street
Charlotte, North Carolina 28211

Attorney General
Department of Justice
Justice Building
Raleigh, North Carolina 27602

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, North Carolina 27603

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

Mr. Bruce Blanchard
Environmental Projects Review
Department of the Interior
Room 4256
18th and C Street, N.W.
Washington, D. C. 20240

U.S. Environmental Protection Agency
ATTN: Ms. Elizabeth V. Jankus
Office of Environmental Review
Room 2119 M, A-104
401 M Street, S.W.
Washington, D. C. 20460

Director, Criteria and Standards Div.
Office of Radiation Programs
(ANR-460)
U.S. Environmental Protection Agency
Washington, D. C. 20460

EIS Coordinator
U.S. Environmental Protection Agency
Region IV Office
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Chairman, North Carolina
Utilities Commission
430 North Salisbury Street
Dobbs Building
Raleigh, North Carolina 27602

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

OFFICE ▶							
SURNAME ▶							
DATE ▶							

DUKE POWER COMPANY

DOCKET NO. 50-369

MCGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 5
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 September 21, 1981, 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:

   (2) Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 5, 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 is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

S/

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

Attachment:
Technical Specification
change

Date of Issuance: September 23, 1981

E.K - on Amendment & Notice of Action only.

OFFICE	LA:DL:LB#4	DL:LB #4	TQSB	OELD	DL:LB #4	AD:L/DL	
SURNAME	MDuncan/hmc	RBirkel	RStevens	Ketchen	EAdensam	RTedesco	
DATE	9/22/81	9/22/81	9/22/81	9/23/81	9/ /81	9/ /81	

ATTACHMENT TO LICENSE AMENDMENT NO. 5

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

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

Overleaf Page	Amended Page
2-6	2-5

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
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TABLE 2.2-1

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Manual Reactor Trip	Not Applicable	Not Applicable
2. Power Range, Neutron Flux	Low Setpoint - $\leq$ 25% of RATED THERMAL POWER	Low Setpoint - $\leq$ 26% of RATED THERMAL POWER
	High Setpoint - $\leq$ 109% of RATED THERMAL POWER	High Setpoint - $\leq$ 110% of RATED THERMAL POWER
3. Power Range, Neutron Flux, High Positive Rate	$\leq$ 5% of RATED THERMAL POWER with a time constant $\geq$ 2 seconds	$\leq$ 5.5% of RATED THERMAL POWER with a time constant $\geq$ 2 seconds
4. Power Range, Neutron Flux, High Negative Rate	$\leq$ 5% of RATED THERMAL POWER with a time constant $\geq$ 2 seconds	$\leq$ 5.5% of RATED THERMAL POWER with a time constant $\geq$ 2 seconds
5. Intermediate Range, Neutron Flux	$\leq$ 25% of RATED THERMAL POWER	$\leq$ 30% of RATED THERMAL POWER
6. Source Range, Neutron Flux	$\leq 10^5$ counts per second	$\leq 1.3 \times 10^5$ counts per second
7. Overtemperature ΔT	See Note 1	See Note 3
8. Overpower ΔT	See Note 2	See Note 3
9. Pressurizer Pressure--Low	$\geq$ 1945 psig	$\geq$ 1935 psig
10. Pressurizer Pressure--High	$\leq$ 2385 psig	$\leq$ 2395 psig
11. Pressurizer Water Level--High	$\leq$ 92% of instrument span	$\leq$ 93% of instrument span
12. Turbine Trip		
A. Low System Pressure Trip	$\geq$ 45 psig	$\geq$ 42 psig
B. Turbine Stop Valve Closure	$\geq$ 1% open	$\geq$ 1% open

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
13. Loss of Flow	$\geq$ 90% of design flow per loop*	$\geq$ 89% of design flow per loop*
14. Steam Generator Water Level--Low-Low	$\geq$ 12% of span from 0 to 30% of RATED THERMAL POWER, increasing linearly to $\geq$ 54.9% of span at 100% of RATED THERMAL POWER.	$\geq$ 11% of span from 0 to 30% of RATED THERMAL POWER, increasing linearly to $\geq$ 53.9% of span at 100% of RATED THERMAL POWER.
15. Undervoltage-Reactor Coolant Pumps	$\geq$ 5082 volts-each bus	$\geq$ 5016 volts-each bus
16. Underfrequency-Reactor Coolant Pumps	$\geq$ 56.4 Hz - each bus	$\geq$ 55.9 Hz - each bus
17. Safety Injection Input from ESF	Not Applicable	Not Applicable
18. Intermediate Range Neutron Flux - (P-6) Enable Block Source Range Reactor Trip	$\geq 1 \times 10^{-10}$ amps	$\geq 6 \times 10^{-11}$ amps
19. Power Range Neutron Flux (not P-10) Input to Low Power Reactor Trips Block P-7	$\leq$ 10% of RATED THERMAL POWER	$\leq$ 11% of RATED THERMAL POWER
20. Turbine Impulse Chamber Pressure - (P-13) Input to Low Power Reactor Trips Block P-7	$\leq$ 10% Turbine Impulse Pressure Equivalent	$\leq$ 11% Turbine Impulse Pressure Equivalent

*Design flow is 97,500 gpm per loop.

SAFETY EVALUATION BY THE

OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 5

TO LICENSE NPF-9

DUKE POWER COMPANY

INTRODUCTION

By letter dated September 21, 1981, the licensee (Duke Power Company) proposed a modification to the Technical Specification for the McGuire Nuclear Station, Unit 1, regarding the setpoint associated with the reactor trip initiated by a turbine trip.

The design of the Turbine Trip/Reactor Trip circuit is based on the control oil system which is used to control the Digital Electro-Hydraulic (DEH) system oil pressure through an interface valve. When a turbine trip signal is initiated, a section of the control oil system is bled off which in turn dumps the pressure on the DEH system to close the turbine control and stop valves. This control oil system generates a low pressure signal at 45 psig through 2 out of 3 logic to trip the reactor above the P-8 setpoint. The DEH low pressure trip at 900 psig serves to close the turbine control and stop valves which in turn would trip the reactor through the turbine stop valve closure switch at 1% open.

EVALUATION

The existing Technical Specification, Table 2.2-1, Reactor Trip System Instrumentation Trip Setpoints, item 12.A., specifies a DEH pressure trip setpoint for the turbine control and stop valves. Since the DEH system low pressure trip does not directly feed the reactor trip circuit, the setpoint specified should accurately reflect the operation of the control oil pressure switches which directly initiate the reactor trip as described above.

We agree with the licensee's conclusion that the revised turbine trip low system pressure trip correctly reflects the reactor trip function and does not result in any adverse safety implications.

ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types of 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.

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CONCLUSION

We have concluded, based on the considerations 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: September 23, 1981

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DATE ▶	.....	.....	.....	.....	.....	.....	.....

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-369

DUKE POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT

FACILITY OPERATING LICENSE NO. NPF-9

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 5 to Facility Operating License No. NPF-9, issued to Duke Power Company (licensee) for the McGuire Nuclear Station, Unit 1 (the facility) located in Mecklenburg County, North Carolina. This amendment corrects the setpoint associated with the reactor trip initiated by a turbine trip. The amendment is effective as of its date of issuance.

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.

For further details with respect to this action, see (1) Duke Power Company letter dated September 21, 1981, (2) Amendment No. 5 to Facility Operating License No. NPF-9 with Appendix A Technical Specification page change, and (3) the Commission's related Safety Evaluation.

OFFICE ▶							
SURNAME ▶							
DATE ▶							

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 items 2 and 3 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 23rd day of September 1981.

FOR THE NUCLEAR REGULATORY COMMISSION

S/

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

*See previous concurrence

OFFICE	*DL:LB#4	*DL:LB#4	*OELD	DL:LB#4			
SURNAME	9/22/81	9/22/81	9/22/81	9/ /81			
DATE	MDuncan:hmc	RBirkel	EKetchen	EAdensam			

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. 5 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, Acting Chief
Licensing Branch No. 4
Division of Licensing, NRR

E.K - Notice: submit statement offering the SE only to whoever requests at the appropriate one address.

OFFICE	LA:DL:LB #4	DL:LB #4	OELD	DL:LB #4			
SURNAME	MDuncan/hmc	RBirkel	KETCHEN	EAdensam			
DATE	9/22/81	9/22/81	9/22/81	9/ /81			

To: - Ralph Birkel
x 28516
From: Skip Copp
(2 pages)

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

September 21, 1981

Ralph,
This one needs to be expedited. We cannot exceed 4% to power until this is approved.
Skip

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: McGuire Nuclear Station
Proposed Amendment to License NFF-9
Docket No. 50-369

Dear Mr. Denton:

Attached is a proposed change to the McGuire Nuclear Station, Unit 1, Technical Specifications. This change corrects the setpoint associated with the reactor trip initiated by a turbine trip.

This change has been reviewed and it has been determined that there are no adverse safety or environmental impacts associated with the proposed change. The proposed change is considered to be a Class III amendment pursuant to 10 CFR 170.22. Therefore, enclosed is a check in the amount of $4000.

Very truly yours,

s/William O. Parker, Jr.
William O. Parker, Jr.

GAC/smh

cc: Ms. M. J. Graham
Resident Inspector
McGuire Nuclear Station

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Technical Specification 2.2 - Reactor Trip Instrumentation Setpoints

Proposed Change

Change Values on Item 12B in Table 2.2-1 to read:

12A) Low System Pressure Trip - Trip Setpoint ≥ 45 psig
Allowable Value ≥ 42 psig

Justification and Safety Analysis

The design of the Turbine Trip/Reactor Trip circuit is based on the control oil system which is used to control (DEH) system oil pressure through an interface valve. When a turbine trip signal is initiated, a section of the control oil system is bled off which in turn dumps the pressure on the DEH system to close the turbine control and stop valves. This control oil system generates a low pressure signal at 45 psig through 2 out of 3 logic to trip the reactor above the P-8 setpoint. The DEH low pressure trip at 900 psig serves to close the turbine control and stop valves which in turn would trip the reactor through the turbine stop valve closure switch at 1% open. However, the DEH system low pressure trip does not directly feed the reactor trip circuit. Therefore, the setpoint specified should be for the control oil pressure switches which directly initiate the reactor trip.

This proposed change corrects the current Technical Specifications to correctly specify the trip setpoint and as such does not result in any adverse safety implications.

→ M. Duncan

To: - Ralph Birkel
x 28516
From: Skip Capp
(2 pages)

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

September 21, 1981

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: McGuire Nuclear Station
Proposed Amendment to License NPF-9
Docket No. 50-369

Ralph,
This one needs to be expedited. We cannot exceed 4% to power until this is approved.
Skip

Dear Mr. Denton:

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This change has been reviewed and it has been determined that there are no adverse safety or environmental impacts associated with the proposed change. The proposed change is considered to be a Class III amendment pursuant to 10 CFR 170.22. Therefore, enclosed is a check in the amount of $4000.

Very truly yours,

s/William O. Parker, Jr.
William O. Parker, Jr.

GAC/smh

cc: Ms. M. J. Graham
Resident Inspector
McGuire Nuclear Station

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Technical Specification 2.2 - Reactor Trip Instrumentation Setpoints

Proposed Change

Change Values on Item 12B in Table 2.2-1 to read:

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Allowable Value $\geq$ 42 psig

Justification and Safety Analysis

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This proposed change corrects the current Technical Specifications to correctly specify the trip setpoint and as such does not result in any adverse safety implications.

DISTRIBUTION:
Docket No. 50-369
LB #4 r/f
E. Adensam
R. Birkel
M. Duncan
D. Eisenhut
E. Ketchen

September 22, 1981

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

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

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

SUBJECT: ISSUANCE OF AMENDMENT NO. 5 TO FACILITY OPERATING LICENSE NPF-9 - McGUIRE NUCLEAR STATION, UNIT 1

Regarding the issuance of the subject amendment, there is no known public correspondence or irreversible impact associated with this subject.

/s/
Ralph Birkel, Project Manager
Licensing Branch No. 4
Division of Licensing

OFFICE	DL:LB#4	DL:LB#4	DL:LB#4'				
SURNAME	MDuncan:hmc	RBirkel	EAdensam				
DATE	9/22/81	9/22/81	9/23/81				

AMENDMENT NO. 5 TO
FACILITY OPERATING LICENSE NPF-9 - McGUIRE NUCLEAR STATION, UNIT NO. 1

DISTRIBUTION w/enclosures:

Docket No. 50-369
LB #4 r/f
R. Birkel
M. Duncan
I&E (5)
E. Ketchen, OELD
G. Deegan (4)
E. Adensam
MPA
A. Toalston, DE
I. Dinitz, DE
R. Diggs, DE
D. Eisenhut
R. Purple
R. Tedesco
T. Novak
F. Miralgia
B. J. Youngblood
J. Miller
A. Schwencer
S. Hanauer
R. Vollmer
R. Mattson
R. Murley
NMSS

bcc w/enclosures:

NRC PDR
Local PDR
NSIC
TERA
A. Rosenthal, ASLAB
ASLBP
ACRS (16)
B. Scharf - 10