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

June 6, 1989

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.97 TO FACILITY OPERATING LICENSE NPF-9 AND AMENDMENT NO. 79 TO FACILITY OPERATING LICENSE NPF-17 - MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 (TACS 64744/64745)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 97 to Facility Operating License NPF-9 and Amendment No. 79 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 February 17, 1987, as supplemented November 19, 1987, and April 1 and October 3, 1988.

The amendments make editorial, administrative, or other minor changes to the TS to add clarification, consistency, and conciseness. Also, license condition 2.C.(8) is deleted from Facility Operating License NPF-17. The amendments are effective as of their date of issuance.

A copy of the related safety evaluation supporting Amendment No. 97 to Facility Operating License NPF-9 and Amendment No. 79 to Facility Operating License NPF-17 is enclosed.

Your letters of February 17 and November 19, 1987, proposed TS changes regarding radiation monitor EMF-39. These changes were superseded October 3, 1988. You have also submitted a separate request involving EMF-39 by letter of April 1, 1988. We are reviewing your October request in combination with the April request, and these will be addressed collectively by future amendment under TAC 68050 (Unit 1) and 68051 (Unit 2).

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OFC/GN

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

Sincerely,

Darl Hood

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

Enclosures:
1. Amendment No. 97 to NPF-9
2. Amendment No. 79 to NPF-17
3. Safety Evaluation

cc w/enclosures:
See next page

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

Sincerely,

/S/

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

Enclosures:
1. Amendment No. 97 to NPF-9
2. Amendment No. 79 to NPF-17
3. Safety Evaluation

cc w/enclosures:
See next page

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MRood	DHood:ls	DMatthews
05/17/89	05/17/89	05/24/89

DATED: June 6, 1989

AMENDMENT NO. 97 TO FACILITY OPERATING LICENSE NPF-9 - McGuire Nuclear Station, Unit 1
AMENDMENT NO. 79 TO FACILITY OPERATING LICENSE NPF-17 - McGuire Nuclear Station, Unit 2

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Mr. H. B. Tucker
Duke Power Company

McGuire Nuclear Station

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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. 97
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 February 17, 1987, as supplemented November 19, 1987, and April 1 and October 3, 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. 97 , 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

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

Attachment:
Technical Specification
Changes

Date of Issuance: June 6, 1989

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. 97 , 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

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

Attachment:
Technical Specification
Changes

Date of Issuance: June 6, 1989

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MRood	DHood:	JCalvo	~~CMcCracken~~	FRosa	LCunningham	
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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. 79
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 February 17, 1987, as supplemented November 19, 1987, and April 1 and October 3, 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. 79, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. Facility Operating License NPF-17 is further amended as follows:

   A. Delete license condition 2.C.(8).

4. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:
Technical Specification
Changes

Date of Issuance: June 6, 1989

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. 79, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. Facility Operating License NPF-17 is further amended as follows:

   A. Delete license condition 2.C.(8).

4. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By:
David B. Matthews

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

Attachment:
Technical Specification
Changes

Date of Issuance: June 6, 1989

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PDII-3	PDII-3	OTSB	SPLB	SELB	PRPB	OGC-WF
MRood	DHood:	JCALVO	~~GMcCracken~~	FRosa	LCunningham	
05/17/89	05/17/89	5/18/89	05/22/89	05/22/89	05/22/89	05/23/89

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05/24/89

ATTACHMENT TO LICENSE AMENDMENT NO. 97

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 79

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. The corresponding overleaf pages are also provided to maintain document completeness.

Amended Page	Overleaf Page
3/4 1-9	
3/4 1-10	
3/4 3-21	
3/4 3-22	
3/4 3-23	
3/4 3-24a	
3/4 3-28	
3/4 3-29	3/4 3-30
3/4 3-32	
3/4 3-33	3/4 3-34
3/4 3-53	3/4 3-54
3/4 3-56	
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3/4 3-75	
3/4 3-77	
3/4 5-6	3/4 5-5
3/4 5-7	
3/4 6-22	
3/4 11-15	

CHARGING PUMP - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.3 One charging pump in the boron injection flow path required by Specification 3.1.2.1 shall be OPERABLE and capable of being powered from an OPERABLE emergency power source.

APPLICABILITY: MODES 5 and 6.

ACTION:

With no charging pump OPERABLE or capable of being powered from an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.1.2.3.1 The above required charging pump shall be demonstrated OPERABLE by verifying a differential pressure across the pump of greater than or equal to 2380 psid is developed when tested pursuant to Specification 4.0.5.

4.1.2.3.2 All centrifugal charging pumps, excluding the above required OPERABLE pump, shall be demonstrated inoperable at least once per 31 days, except when the reactor vessel head is removed, by verifying that the motor circuit breakers are secured in the open position or by verifying the discharge of each charging pump has been isolated from the Reactor Coolant System by at least two isolation valves with power removed from the valve operators.

CHARGING PUMPS - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.4 At least two[#] charging pumps shall be OPERABLE.

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

ACTION:

With only one charging pump OPERABLE, restore at least two charging pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to at least 1% delta k/k at 200°F within the next 6 hours; restore at least two charging pumps to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.4.1 At least two charging pumps shall be demonstrated OPERABLE by verifying a differential pressure across each pump of greater than or equal to 2380 psid is developed when tested pursuant to Specification 4.0.5.

4.1.2.4.2 All centrifugal charging pumps, except the above required OPERABLE pump, shall be demonstrated inoperable at least once per 31 days whenever the temperature of one or more of the RCS cold legs is less than or equal to 300°F by verifying that the motor circuit breakers are secured in the open position or by verifying the discharge of each charging pump has been isolated from the Reactor Coolant System by at least two isolation valves with power removed from the valve operators.

[#]A maximum of one centrifugal charging pump shall be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 300°F.

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
7. Auxiliary Feedwater					
a. Manual Initiation	2	1	2	1, 2, 3	22
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3	21
c. Stm. Gen. Water Level-Low-Low					
1) Start Motor-Driven Pumps	4/stm. gen.	2/stm. gen. in any operating stm gen.	3/stm. gen. in each operating stm. gen.	1, 2, 3	19
2) Start Turbine-Driven Pump	4/stm. gen.	2/stm. gen. in any 2 operating stm. gen.	3/stm. gen in each operating stm. gen	1, 2, 3	19
d. Auxiliary Feedwater Suction Pressure - Low (Suction Supply Automatic Realignment)	2/motor driven pump 4/turbine driven pump	2/pump 2/pump	2 of the same train/pump 2 of the same train/pump	1,2,3 1,2,3	24 24
e. Safety Injection Start Motor-Driven Pumps					
See Item 1. above for all Safety Injection initiating functions and requirements					

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
7. Auxiliary Feedwater (continued)					
f. Station Blackout (Note 1) Start Motor-Driven Pumps and Turbine-Driven Pump	6-3/Bus	2/Bus Either Bus	2/Bus	1, 2, 3	19
g. Trip of All Main Feedwater Pumps Start Motor-Driven Pumps	2-1/MFWP	2-1/MFWP	2-1/MFWP	1, 2#	27
8. Automatic Switchover to Recirculation					
RWST Level	3	2	2	1, 2, 3	15
9. Loss of Power					
4 kV Emergency Bus Undervoltage-Grid Degraded Voltage	3/Bus	2/Bus	2/Bus	1, 2, 3, 4	15a
10. Engineered Safety Features Actuation System Interlocks					
a. Pressurizer Pressure, P-11	3	2	2	1, 2, 3	20
b. Low-Low T_{avg}, P-12	4	2	3	1, 2, 3	20
c. Reactor Trip, P-4	2	2	2	1, 2, 3	22
d. Steam Generator Level, P-14	3/stm gen.	2/stm gen. in any operating stm gen.	2/stm gen. in each operating stm gen.	1, 2, 3	20

Amendment No. 97(Unit 1)
Amendment No. 79(Unit 2)

TABLE 3.3-3 (Continued)

TABLE NOTATION

#Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

##Trip function automatically blocked above P-11 and may be blocked below P-11 when Safety Injection on low steam pressure is not blocked.

**These values left blank pending NRC approval of three loop operation.

Note 1: Turbine driven auxiliary feedwater pump will not start on a blackout signal coincident with a safety injection signal.

ACTION STATEMENTS

ACTION 14 With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

ACTION 15 With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 15a With the number of OPERABLE channels less than the total Number of Channels, operation may proceed until performance of the next required OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour. With more than one channel inoperable, enter Specification 3.8.1.1.

ACTION 16 With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.

ACTION 17 With less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment purge supply and exhaust valves are maintained closed.

ACTION 25 - With one of the two trains of doghouse water level instrumentation inoperable (less than the minimum required number of channels operable), restore the inoperable train to operable status in 72 hours. After 72 hours with one train inoperable, or within one hour with 2 trains inoperable, monitor doghouse water level in the affected doghouse continuously until both trains are restored to operable status.

ACTION 26 - With any of the eight channels inoperable, place the inoperable channel(s) in the start permissive mode within one hour and apply the applicable action statement (Containment Spray - T.S. 3.6.2, Containment Air Return/Hydrogen Skimmer - T.S. 3.6.5.6).

ACTION 27 - With the number of OPERABLE channels one less than the total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the inoperable channel is placed in the tripped condition within 1 hour.

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
7. Auxiliary Feedwater		
a. Manual Initiation	N.A.	N.A.
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.
c. Steam Generator Water Level--Low-Low		
1) Start Motor-Driven Pumps	$\geq$ 12% of span from 0 to 30% of RATED THERMAL POWER, increasing linearly to $\geq$ 40.0% of span at 100% of RATED THERMAL POWER.	$\geq$ 11% of span from 0 to 30% of RATED THERMAL POWER, increasing linearly to $\geq$ 39.0% of span at 100% of RATED THERMAL POWER.
2) Start Turbine-Driven Pumps	$\geq$12% of span from 0 to 30% of RATED THERMAL POWER, increasing linearly to $\geq$ 40.0% of span at 100% of RATED THERMAL POWER.	$\geq$ 11% of span from 0 to 30% of RATED THERMAL POWER, increasing linearly to $\geq$ 39.0% of span at 100% of RATED THERMAL POWER.
d. Auxiliary Feedwater Suction Pressure - Low (Suction Supply Automatic Realignment)	$\geq$ 2 psig	$\geq$ 1 psig
e. Safety Injection - Start Motor-Driven Pumps	See Item 1. above for all Safety Injection Trip Setpoints and Allowable Values	
f. Station Blackout - Start Motor-Driven Pumps and Turbine-Driven Pump (Note 1)	3464 ± 173 volts with a 8.5 ± 0.5 second time delay	$\geq$ 3200 volts
g. Trip of Main Feedwater Pumps - Start Motor-Driven Pumps	N.A.	N.A.

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
8. Automatic Switchover to Recirculation		
RWST Level	≥ 90 inches	≥ 80 inches
9. Loss of Power		
4 kV Emergency Bus Undervoltage-Grid Degraded Voltage	3464 ± 173 volts with a 8.5 ± 0.5 second time delay	≥ 3200 volts
10. Engineered Safety Features Actuation System Interlocks		
a. Pressurizer Pressure, P-11	≤ 1955 psig	≤ 1965 psig
b. T_{avg}, P-12	≥ 553°F	≥ 551°F
c. Reactor Trip, P-4	N.A.	N.A.
d. Steam Generator Level, P-14	See Item 5. above for all Trip Setpoints and Allowable Values.	

Note 1: The turbine driven pump will not start on a blackout signal coincident with a safety injection signal.

TABLE 3.3-5

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
1. Manual	
a. Safety Injection (ECCS)	N.A.
b. Containment Spray	N.A.
c. Containment Isolation	
Phase "A" Isolation	N.A.
Phase "B" Isolation	N.A.
Purge and Exhaust Isolation	N.A.
d. Steam Line Isolation	N.A.
e. Feedwater Isolation	N.A.
f. Auxiliary Feedwater	N.A.
g. Nuclear Service Water	N.A.
h. Component Cooling Water	N.A.
i. Reactor Trip (from SI)	N.A.
j. Start Diesel Generators	N.A.
2. Containment Pressure-High	
a. Safety Injection (ECCS)	$\leq 27^{(1)}$
b. Reactor Trip (from SI)	≤ 2
c. Feedwater Isolation	≤ 9
d. Containment Isolation-Phase "A"[2]	$\leq 18^{(3)}/28^{(4)}$
e. Containment Purge and Exhaust Isolation	N.A.
f. Auxiliary Feedwater[5]	N.A.
g. Nuclear Service Water	$\leq 65^{(3)}/76^{(4)}$
h. Component Cooling Water	$\leq 65^{(3)}/76^{(4)}$
i. Start Diesel Generators	≤ 11

TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

INITIATING SIGNAL AND FUNCTION	RESPONSE TIME IN SECONDS
7. Steam Generator Water Level LowLow	
a. Motor-driven Auxiliary Feedwater Pumps	$\leq$ 60
b. Turbine-driven Auxiliary Feedwater Pumps	$\leq$ 60
8. Negative Steam Line Pressure Rate - High	
Steam Line Isolation	$\leq$ 7
9. Start Permissive	
Containment Pressure Control System	N.A.
10. Termination	
Containment Pressure Control System	N.A.
11. Auxiliary Feedwater Suction Pressure - Low	
Auxiliary Feedwater Pumps (Suction Supply Automatic Realignment)	$\leq$ 13
12. RWST Level	
Automatic Switchover to Recirculation	$\leq$ 60
13. Station Blackout	
a. Start Motor-Driven Auxiliary Feedwater Pumps	$\leq$ 60
b. Start Turbine-Driven Auxiliary Feedwater Pump (6)	$\leq$ 60
14. Trip of Main Feedwater Pumps	
Start Motor-Driven Auxiliary Feedwater Pumps	$\leq$ 60
15. Loss of Power	
4 kV Emergency Bus Undervoltage-Grid Degraded Voltage	$\leq$ 11

TABLE 3.3-5 (Continued)

TABLE NOTATION

(1) Diesel generator starting and sequence loading delays included. Response time limit includes opening of valves to establish Safety Injection path and attainment of discharge pressure for centrifugal charging pumps, Safety Injection and RHR pumps.

(2) Valves 1KC305B and 1KC315B for Unit 1 and Valves 2KC305B and 2KC315B for Unit 2 are exceptions to the response times listed in the table. The following response times in seconds are the required values for these valves for the initiating signal and function indicated:

2.d	$\leq 30^{(3)}/40^{(4)}$
3.d	$\leq 30^{(3)}$
4.d	$\leq 30^{(3)}/40^{(4)}$

(3) Diesel generator starting and sequence loading delays not included. Offsite power available. Response time limit includes opening of valves to establish Safety Injection path and attainment of discharge pressure for centrifugal charging pumps and Safety Injection pumps.

(4) Diesel generator starting and sequence loading delays included. Response time limit includes opening of valves to establish Safety Injection path and attainment of discharge pressure for centrifugal charging pumps and Safety Injection pumps.

(5) Response time for motor-driven auxiliary feedwater pumps on all Safety Injection signal shall be less than or equal to 60 seconds. Response time limit includes opening of valves to establish Safety Injection path and attainment of discharge pressure for auxiliary feedwater pumps.

(6) The turbine driven pump does not start on a blackout signal coincident with a safety injection signal.

TABLE 4.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Safety Injection, Reactor Trip, Feedwater Isolation, Component Cooling Water, Start Diesel Generators, and Nuclear Service Water								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A	N.A	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
c. Containment Pressure-High	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
d. Pressurizer Pressure-Low-Low	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
e. Steam Line Pressure--Low	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
2. Containment Spray								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
c. Containment Pressure--High-High	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3

TABLE 3.3-9

REMOTE SHUTDOWN MONITORING INSTRUMENTATION

INSTRUMENT	READOUT LOCATION	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
1. Reactor Trip Breaker Indication	Reactor Trip Switchgear	1/trip breaker	1/trip breaker
2. Reactor Coolant Loop D Hot Leg Temperature	Auxiliary Shutdown Control Panel	1	1
3. Pressurizer Pressure	Auxiliary Shutdown Control Panel	1	1
4. Pressurizer Level	Auxiliary Shutdown Control Panel	1	1
5. Steam Generator Pressure	Auxiliary Feedwater Pump Motor Control Panel	1/steam generator	1/steam generator
6. Steam Generator Level	Auxiliary Feedwater Pump Motor Control Panel	1/steam generator	1/steam generator
7. Auxiliary Feedwater Flow Rate	Auxiliary Feedwater Pump Motor Control Panel	1/steam generator	1/steam generator

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1. Reactor Trip Breaker Indication	M	N.A.
2. Reactor Coolant Loop D Hot Leg Temperature	M	R
3. Pressurizer Pressure	M	R
4. Pressurizer Level	M	R
5. Steam Generator Pressure	M	R
6. Steam Generator Level	M	R
7. Auxiliary Feedwater Flow Rate	M	R

TABLE 3.3-10
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE
1. Containment Pressure	2	1
2. Reactor Coolant Temperature - T_{HOT} and T_{COLD} (Wide Range)	2/T_{HOT} 2/T_{COLD}	1/T_{HOT} 1/T_{COLD}
3. Reactor Coolant Pressure - Wide Range	2	1
4. Pressurizer Water Level	2	1
5. Steam Line Pressure	2/steam generator	1/steam generator
6. Steam Generator Water Level - Narrow Range	2/steam generator	1/steam generator
7. Refueling Water Storage Tank Water Level	2	1
8. Auxiliary Feedater Flow Rate	2/steam generator	1/steam generator
9. Reactor Coolant System Subcooling Margin Monitor	2	1
10. PORV Position Indicator*	2/valve	1/valve
11. PORV Block Valve Position Indicator**	1/valve	1/valve
12. Safety Valve Position Indicator	2/valve	1/valve
13. Containment Water Level (Wide Range)	2	1
14. In Core Thermocouples	4/core quadrant	2/core quadrant
15. Unit Vent - High Range Noble Gas Monitor (High-High Range - EMF-36)	1	1
16. Steam Relief - High Range Monitor (Unit 1 - EMF-24, 25, 26, 27) (Unit 2 - EMF-10, 11, 12, 13)	1/steam line	1/steam line
17. Containment Atmosphere - High Range Monitor (11 F-51a or 51b)	1	1
18. Reactor Vessel Level Instrumentation		
a. Dynamic Head (D/P) Range	2	1
b. Lower Range	2	1

*Not applicable if the associated block valve is in the closed position.
**Not applicable if the associated block valve is in the closed position and power is removed.

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST
1. Radioactivity Monitors Providing Alarm And Automatic Termination of Release				
a. Waste Liquid Effluent Line (EMF-49)	D	P	R(3)	Q(1)
b. Containment Ventilation Unit Condensate Line (EMF-44)	D	M	R(3)	Q(1)
2. Radioactivity Monitors Providing Alarm But Not Providing Automatic Termination of Release				
Conventional Wastewater Treatment Line (EMF-31)	D	M	R(3)	Q(2)
3. Continuous Composite Samplers And Sampler Flow Monitor				
a. Containment Ventilation Unit Condensate Line	D(4)	N.A.	R	Q
b. Conventional Wastewater Treatment Line	D(4)	N.A.	R	Q
4. Flow Rate Measurement Devices				
a. Waste Liquid Effluent Line	D(4)	N.A.	R	Q
b. Discharge Canal Minimum Flow Interlock	D(4)	N.A.	N.A.	Q
c. Containment Ventilation Unit Condensate Line	D(4)	N.A.	R	Q
d. Conventional Wastewater Treatment Line	D(4)	N.A.	R	Q

Amendment No.97 (Unit 1)
Amendment No.79 (Unit 2)

TABLE 4.3-8 (Continued)

TABLE NOTATION

(1) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur if any of the following conditions exists:

a. Instrument indicates measured levels above the Alarm/Trip Setpoint,

b. Circuit failure (alarm only), and

c. Instrument indicates a downscale failure (alarm only).

(2) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:

a. Instrument indicates measured levels above the Alarm Setpoint,

b. Circuit failure,

c. Instrument indicates a downscale failure, and

(3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.

(4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABILITY	ACTION
1.	WASTE GAS HOLDUP SYSTEM			
	a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (Low Range - EMF-50 or 1EMF-36, low-range)	1 per station	***	35
	b. Effluent System Flow Rate Measuring Device	1 per station	*	36
2.	WASTE GAS HOLDUP SYSTEM Explosive Gas Monitoring System			
	a. Hydrogen Monitor	1 per station	**	41
	b. Oxygen Monitors	2 per station	**	39
3.	Condenser Evacuation System			
	Noble Gas Activity Monitor (EMF-33)	1	#	37
4.	Vent System			
	a. Noble Gas Activity Monitor (Low Range - EMF-36)	1	*	37
	b. Iodine Sampler	1	*	40
	c. Particulate Sampler	1	*	40
	d. Flow Rate Monitor	1	*	36
	e. Sampler Minimum Flow Device	1	*	36

Amendment No.97 (Unit 1)
Amendment No.79 (Unit 2)

TABLE 3.3-13 (Continued)

TABLE NOTATION

* At all times.
** During WASTE GAS HOLDUP SYSTEM operation.
***During gaseous effluent releases.
#When air ejectors are operable.

ACTION STATEMENTS

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment for up to 14 days provided that prior to initiating the release:

a. At least two independent samples of the tank's contents are analyzed, and

b. At least two technically qualified members of the facility staff independently verify the discharge valve lineup:

1) The manual portion of the computer input for the release rate calculations performed on the computer, or

2) The entire release rate calculations if such calculations are performed manually.

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.

ACTION 37 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples are taken at least once per 12 hours and these samples are analyzed for gross radioactivity within 24 hours.

ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING or VENTING of radioactive effluents via this pathway.

ACTION 39 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, operation of this system may continue for up to 14 days. With two channels inoperable, be in at least HOT STANDBY within 6 hours.

ACTION 40 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the effected pathway may continue for up to 30 days provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2.

ACTION 41 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, suspend oxygen supply to the recombiner.

TABLE 4.3-9

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. WASTE GAS HOLDUP SYSTEM					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (Low Range - EMF-50 or 1EMF-36)	P	P	R(3)	Q(1)	*
b. Effluent System Flow Rate Measuring Device	D	N.A.	R	Q	*
2. WASTE GAS HOLDUP SYSTEM Explosive Gas Monitoring System					
a. Hydrogen Monitor	D	N.A.	Q(4)	M	**
b. Oxygen Monitor	D	N.A.	Q(5)	M	**
c. Oxygen Monitor (alternate)	D	N.A.	Q(5)	M	**
3. Condenser Evacuation System					
Noble Gas Activity Monitor (EMF-33)	D	M	R(3)	Q(2)	#
4. Vent System					
a. Noble Gas Activity Monitor (Low Range - EMF-36)	D	M	R(3)	Q(2)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Flow Rate Monitor	D	N.A.	R	Q	*
e. Sampler Minimum Flow Device	D	N.A.	R	Q	*

Amendment No.97 (Unit 1)
Amendment No.79 (Unit 2)

TABLE 4.3-9 (Continued)

TABLE NOTATION

*At all times except when the isolation valve is closed and locked.
**During WASTE GAS HOLDUP SYSTEM operation.
#When air ejectors are operable.

(1) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exists:

a. Instrument indicates measured levels above the Alarm/Trip Setpoint,

b. Circuit failure (alarm only), and

c. Instrument indicates a downscale failure (alarm only).

(2) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:

a. Instrument indicates measured levels above the Alarm Setpoint,

b. Circuit failure, and

c. Instrument indicates a downscale failure.

(3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.

(4) The CHANNEL CALIBRATION shall include the use of standard gas samples corresponding to alarm setpoints in accordance with the manufacturer's recommendations.

(5) The CHANNEL CALIBRATION shall include the use of standard gas samples in accordance with the manufacturer's recommendations. In addition, a standard gas sample of nominal 4 volume percent oxygen, balance nitrogen, shall be used in the calibration to check linearity of the oxygen analyzer.

3/4.5.2 ECCS SUBSYSTEMS - $T_{avg} \geq 350°F$

LIMITING CONDITION FOR OPERATION

3.5.2 Two independent Emergency Core Cooling System (ECCS) subsystems shall be OPERABLE with each subsystem comprised of:

a. One OPERABLE centrifugal charging pump,

b. One OPERABLE Safety Injection pump,

c. One OPERABLE RHR heat exchanger,

d. One OPERABLE RHR pump, and

e. An OPERABLE flow path capable of taking suction from the refueling water storage tank on a Safety Injection signal and automatically transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the following valves are in the indicated positions with power to the valve operators removed:

Valve Number	Valve Function	Valve Position
NI162A	Cold Leg Recirc.	Open*
NI121A	Hot Leg Recirc.	Closed
NI152B	Hot Leg Recirc.	Closed
NI183B	Hot Leg Recirc.	Closed
NI173A	RHR Pump Discharge	Open*
NI178B	RHR Pump Discharge	Open*
NI100B	SI Pump RWST Suction	Open
FW27A	RHR/RWST Suction	Open*
NI147A	SI Pump Mini flow	Open

b. At least once per 31 days by:

1) Verifying that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping high points, unless the pumps and associated piping are in service or have been in service within 31 days, and

2) Verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

c. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment sump and cause restriction of the pump suctions during LOCA conditions. This visual inspection shall be performed:

1) For all accessible areas of the containment prior to establishing CONTAINMENT INTEGRITY, and

2) Of the areas affected within containment at the completion of each containment entry when CONTAINMENT INTEGRITY is established.

d. At least once per 18 months by:

1) Verifying automatic isolation and interlock action of the RHR System from the Reactor Coolant System by ensuring that:

a) With a simulated or actual Reactor Coolant System pressure signal greater than or equal to 425 psig the interlocks prevent the valves from being opened, and

b) With a simulated or actual Reactor Coolant System pressure signal less than or equal to 560 psig the interlocks will cause the valves to automatically close.

*Valves may be realigned to place RHR System in service and for testing pursuant to Specification 4.4.6.2.2.

2) A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.

e. At least once per 18 months, during shutdown, by:

1) Verifying that each automatic valve in the flow path actuates to its correct position on Safety Injection actuation and automatic switchover to Containment Sump Recirculation test signals, and

2) Verifying that each of the following pumps start automatically upon receipt of a Safety Injection actuation test signal:

a) Centrifugal charging pump,

b) Safety Injection pump, and

c) RHR pump.

f. By verifying that each of the following pumps develops the indicated differential pressure when tested pursuant to Specification 4.0.5:

1)	Centrifugal charging pump	$\geq$ 2380 psid,
2)	Safety Injection pump	$\geq$ 1430 psid, and
3)	RHR pump	$\geq$ 160 psid.

g. By verifying the correct position of each electrical and/or mechanical position stop for the following ECCS throttle valves:

1) Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE, and

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE with isolation times less than or equal to the required isolation times.

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

ACTION:

With one or more containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or

d Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. The provisions of Specification 3.0.4 are not applicable provided that the affected penetration is isolated in accordance with ACTION b. or c. above, and provided that the associated system, if applicable, is declared inoperable and the appropriate ACTION statements for that system are performed.

SURVEILLANCE REQUIREMENTS

4.6.3.1 Each containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

RADIOACTIVE EFFLUENTS

GASEOUS RADWASTE TREATMENT SYSTEM

LIMITING CONDITION FOR OPERATION

3.11.2.4 The VENTILATION EXHAUST TREATMENT SYSTEM and the WASTE GAS HOLDUP SYSTEM shall be OPERABLE and appropriate portions of these systems shall be used to reduce releases of radioactivity when the projected doses in 31 days due to to gaseous effluent releases, from each unit, to areas at and beyond the SITE BOUNDARY (see Figure 5.1-3) would exceed:

a. 0.2 mrad to air from gamma radiation, or

b. 0.4 mrad to air from beta radiation, or

c. 0.3 mrem to any organ of a MEMBER OF THE PUBLIC.

APPLICABILITY: At all times.

ACTION:

a. With radioactive gaseous waste being discharged without treatment and in excess of the above limits, in lieu of a Licensee Event Report, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that includes the following information:

   1. Identification of any inoperable equipment or subsystems, and the reason for the inoperability,

   2. Actions(s) taken to restore the inoperable equipment to OPERABLE status, and

   3. Summary description of actions(s) taken to prevent a recurrence.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.11.2.4.1 Doses due to gaseous releases from each unit to areas at and beyond the SITE BOUNDARY shall be projected at least once per 31 days in accordance with the methodology and parameters in the ODCM when gaseous streams are being released without being processed by its Radwaste Treatment System.

4.11.2.4.2 The installed Gaseous Radwaste Treatment System shall be demonstrated OPERABLE by meeting Specifications 3.11.2.1 and 3.11.2.2 and 3.11.2.3.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 97 TO FACILITY OPERATING LICENSE NPF-9

AND AMENDMENT NO. 79 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 February 17, 1987, and supplemented November 19, 1987 and October 3, 1988, Duke Power Company (the licensee) proposed amendments to make several changes to the McGuire Technical Specifications (TS) and to revise a license condition. The TS changes involve editorial, administrative and other minor changes which would add clarification, consistency and conciseness to the existing TS. These change requests are addressed below and, to the extent practical, are grouped according to the nature of the change requested.

Some of the changes requested in the licensee submittals have been approved by previous amendments 88 and 69 to Facility Operating Licenses NPF-9 and NPF-17, respectively.

2.0 EVALUATION

(1) The phrase "on recirculation flow" is deleted from TS 4.1.2.3.1, TS 4.1.2.4.1 and TS 4.5.2(f). This deletion permits testing the charging pumps in their normal flow path as well as in the recirculation flow path. Testing of the pumps in normal systems alignment is an acceptable method and provides additional advantages since it provides for detection of degradation of other components in the system as well as degradation of the pumps. The proposed change permits a more comprehensive test and is, therefore, acceptable.

(2) The following table entries are changed for clarity:

(a) In Table 3.3-3 Engineered Safety Features Actuation System Instrumentation, Item 7.g, which pertains to Main Feedwater Pump (MFWP) Instrumentation used to start motor driven auxiliary feedwater pumps, the entries under "TOTAL NO. OF CHANNELS," "CHANNELS TO TRIP" and "MINIMUM CHANNELS OPERABLE" are changed from "2/pump," "1/pump," and "1/pump" to "2-1/MFWP," "2-1/MFWP," and "2-1/MFWP," respectively.

(b) In Table 3.3-9 Remote Shutdown Monitoring Instrumentation, Item 7, Auxiliary Feedwater Flow Rate Instrumentation, the entries under "TOTAL NO. OF CHANNELS" and "MINIMUM CHANNELS OPERABLE" are changed from "1" to "1/Steam Generator."

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(c) In Table 3.3-10 Accident Monitoring Instrumentation, Item 2, Instrumentation for Reactor Coolant Temperature - T_{hot} and T_{cold} (Wide Range), the entries under "REQUIRED NO. OF CHANNELS" and "MINIMUM CHANNELS OPERABLE" are changed from "2" and "1" to "$2/T_{Hot}$ $2/T_{Cold}$" and "$1T_{Hot}$ $1/T_{Cold}$," respectively.

(d) In Table 3.3-3, Item 7d, Auxiliary Feedwater Suction Pressure - Low, the entries under "TOTAL NO. OF CHANNELS" and "MINIMUM CHANNELS OPERABLE" are revised from "2/pump" to "2/Motor Driven Pump" and "2 of the same train/pump" respectively. Also, the entries "4/Turbine Driven Pump," "2/pump," "2 of the same train/pump," "1,2,3" and "24" are added as new entries under "TOTAL NO. OF CHANNELS," "CHANNELS TO TRIP," "MINIMUM CHANNELS OPERABLE," "APPLICABLE MODES" and "ACTION," respectively, to reflect the as-built condition of the plants.

The revised entry changes in the four items above are more specific and clarify the intent of these TS without altering their substance. They have no adverse impact on safety and are, therefore, acceptable.

(3) Several of the requested changes involve the addition of explanatory notes to TS items concerning the start of the turbine-driven auxiliary feedwater pump.

(a) A new note is added and referenced in Table 3.3-3, Item 7.f, Turbine-driven and Motor-driven Pump Start during Station Blackout Instrumentation. This new Note 1 states: "Turbine-driven auxiliary feedwater pump will not start on a blackout signal coincident with a safety injection signal."

(b) A new Note 1 is added at the end of Table 3.3-4, and referenced at Item 7.f, Turbine-driven Pump and Motor-driven Pumps Start during Station Blackout, Trip Setpoints. The new Note 1 states: "The turbine-driven pump will not start on a blackout signal coincident with a safety injection signal."

(c) In Table 3.3-5, Engineered Safety Features Response Times, a new Note 6 is added and referenced at Item 13b, Start Turbine-driven Auxiliary Feedwater Pump, Response Times. The new Note 6 states: "The turbine-driven pump does not start on a blackout signal coincident with a safety injection signal."

The added notes in the three items above provide explanatory information about the as-built design of the plants and do not adversely affect either plant operation or the substance of the existing TS. The requested changes are, therefore, acceptable.

(4.) In Table 3.3-3, Item 9, Loss of Power, 4kv Emergency Bus Undervoltage-Grid Degraded Voltage, the reference to existing ACTION 15 is changed to a new ACTION 15a.

Existing ACTION 15 states that:

"With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour."

The new ACTION 15a states that:

"With the number of OPERABLE channels less than the Total Number of Channels, operation may proceed until performance of the next required OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour. With more than one channel inoperable, enter Specification 3.8.1.1. "

ACTION 15 requires commencement of shutdown if more than one instrumentation channel on a 4 kv bus becomes inoperable. However, the ACTION statements of TS 3.8.1.1 provide alternative actions on loss of one source of 4 kv power. The proposed change which adds ACTION 15a, makes the statement consistent with TS 3.8.1.1 and is, therefore, acceptable.

(5) In Table 3.3-3, Item 7g, which pertains to starting of motor-driven auxiliary feedwater pumps (MDAFPs) upon trip of all Main Feedwater Pumps (MFWP), reference is changed from ACTION 14 to new ACTION 27.

ACTION 14 states that: "With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE."

ACTION 27 states that: "With the number of OPERABLE channels one less than the total number of channels, STARTUP and/or POWER OPERATION may proceed provided the inoperable channel is placed in the tripped condition within 1 hour."

Thus, this change allows continued operation rather than plant shutdown with one channel of MFWP instrumentation inoperable. We find this to be more appropriate than the current specification. The functional capability of the MDAFP actuation system is maintained as required in the bases of TS (B 3/4 3.1) with one channel inoperable provided that the inoperable channel is placed in the trip condition. System operation logic with both channels operable requires that 2 out of the 2 operable channels (n out of n logic) sense a trip of the main feedwater pumps (MFWPs) prior to the automatic start of the MDAFPs. The same level of conservatism in the system logic is maintained under the proposed action statement where it would be required that with one channel operable and the other channel inoperable but in the tripped

condition that the remaining operable channel (n out of n logic) sense a trip of a MFWP prior to the automatic start of the MDAFPs. The change is, therefore, acceptable.

(6) In Table 4.3-8, Radioactive Liquid Effluent Monitoring Instrumentation Surveillance Requirements, Items 3a and 3b, a reference is added to existing Note 4. The note provides detail on the type of surveillance (Channel check) required in Items 3a and 3b.

This clarifying detail does not alter the substance of the specification and is, therefore, acceptable.

(7) In Tables 3.3-13 and 4.3-9, Radioactive Gaseous Effluent Monitoring Instrumentation, Item 3, Condenser Evacuation System Noble Gas Activity Monitor (EMF-33), a note under Applicability is changed from "*At all times" to "#When air ejectors are operable." The change thus requires that surveillance be performed on the noble gas monitor only when the air ejectors are operable (i.e., when there is a source of gas to the monitor). The monitor serves no purpose when the source of air to the monitor is not available. Therefore, the proposed change is acceptable.

(8) Surveillance Requirement 4.5.2b.1) requires, in part, that each ECCS subsystem be demonstrated OPERABLE at least once per 31 days by verifying that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping high points. The proposed change revises this surveillance requirement by adding the phrase: "unless that pumps and associated piping are in service or have been in service within 31 days."

If the system is in service, then the pumps and piping are assured of being full of water. If the system has been in service within 31 days, this is equivalent to having undergone surveillance within 31 days, which is the currently allowed surveillance interval. Therefore, the proposed revision retains the required assurance regarding the absence of voids and is, therefore, acceptable.

(9) In the ACTION statement for TS 3.6.3, the word "containment" is inserted to make the first sentence read: "With one or more containment isolation valve(s) inoperable...." A similar change is made in the Surveillance Requirement 4.6.3.1 so as to read: "4.6.3.1 Each containment isolation valve...." These are clarifying editorial changes that do not change the substance of the specifications and are, therefore, acceptable.

The licensee also requested that Item e. be added under the ACTION statement for TS 3.6.3. This new Item e. would state:

> e. The provisions of Specification 3.0.4 are not applicable provided that the affected penetration is isolated in accordance with ACTION b. or c. above, and provided that the associated system, if applicable, is declared inoperable and the appropriate ACTION statements for that system are performed.

The new ACTION statement e. would allow mode changes with inoperable containment isolation valves provided that the affected penetration is isolated. The isolation is accomplished by means of ACTION b. or c. Mode changes under these conditions are acceptable because they are in accordance with the guidance in Generic Letter 87-09, "Section 3.0 and 4.0 of the Standard Technical Specifications (STS) on the Applicability of Limiting Conditions for Operation and Surveillance Requirements." The additional provisions in ACTION statement e. relating to the system associated with the penetration are conservative and, therefore, acceptable.

(10) Surveillance Requirement 4.11.2.4.2 to TS 3.11.2.4, which currently reads: "4.11.2.4.2 The installed Gaseous Radwaste Treatment System shall be demonstrated OPERABLE by meeting Specifications 3.11.2.1 and 3.11.2.2 or 3.11.2.3." is revised to read " ...Specifications 3.11.2.1 and 3.11.2.2 and 3.11.2.3."

The revised requirement corrects the specification as originally intended. Moreover, the revised specification is more conservative than the existing one and is, therefore, acceptable.

(11) The licensee also proposed a change to License NPF-17 for Unit 2 to delete License Condition 2.C.(8) regarding the control of heavy loads. In accordance with NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," the license condition related to the control of heavy loads was separated into Phase I and Phase II. Phase I of the condition has been completed. By Generic Letter 85-11, "Completion of Phase II of NUREG-0612," June 28, 1985, the NRC deleted the Phase II conditions. Since the conditions of both Phase I and Phase II have been satisfied, the entire License Condition 2.C.(8) may be deleted. The removal of obsolete (completed) requirements is an administrative change which has no adverse safety impact. It is, therefore, 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). The amendments also relate to changes in recordkeeping, reporting or administrative procedures or requirements. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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 (54 FR 19268) on May 4, 1989. 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.

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