February 15, 1996

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Mr. T. C. McMeekin
Vice President, McGuire Site
Duke Power Company
12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: ISSUANCE OF AMENDMENTS - McGUIRE NUCLEAR STATION, UNITS 1 AND 2 (TAC NOS. M91355, M91356, M93421, AND M93422)

Dear Mr. McMeekin:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 165 to Facility Operating License NPF-9 and Amendment No. 147 to Facility Operating License NPF-17 for the McGuire Nuclear Station, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated January 13, 1995, as supplemented by letter dated August 30, 1995.

The amendments revise the TS to increase the surveillance test intervals and allowed outage times for the Reactor Trip System and Engineered Safety Features Actuation System. The NRC staff has reviewed the proposed changes and finds that, with one exception as noted in the enclosed Safety Evaluation, the amendments conform to WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation Systems," with its revisions and supplements, provides appropriate limiting conditions for operation and action statements, and is, therefore acceptable.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
Original signed by:
Victor Nerses, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosures: 1. Amendment No. 165 to NPF-9
2. Amendment No. 147 to NPF-17
3. Safety Evaluation

cc w/encl: See next page

DOCUMENT NAME: G:\MCGUIRE\MCG91355.AMD

OFFICE	DRPE/PD22/LA	DRPE/PD22/PM	ICSB	OGC	DRPE/PD22/D(A)
NAME	L.BERRY	V.NERSES	J.WERMIEL	RBachmann	L.WIENS
DATE	1/25/96	1/25/96	1/25/96	1/31/96	2/15/96
COPY	YES NO	YES NO	YES NO	YES NO	YES NO

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 15, 1996

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Vice President, McGuire Site
Duke Power Company
12700 Hagers Ferry Road
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Sincerely,

Victor Nerses

Victor Nerses, Senior Project Manager
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3. Safety Evaluation

cc w/encl: See next page

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McGuire Nuclear Station

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DUKE POWER COMPANY

DOCKET NO. 50-369

McGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 165
License No. NPF-9

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the McGuire Nuclear Station, Unit 1 (the facility), Facility Operating License No. NPF-9 filed by the Duke Power Company (licensee) dated January 13, 1995, as supplemented by letter dated August 30, 1995, 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, 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 attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-9 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 165 , are hereby incorporated into this 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 and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: February 15, 1996

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DUKE POWER COMPANY

DOCKET NO. 50-370

McGUIRE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 147
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 (licensee) dated January 13, 1995, as supplemented by letter dated August 30, 1995, 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, 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 attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-17 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 147 , are hereby incorporated into this 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 and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: February 15, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 165

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 147

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.

Remove Pages	Insert Pages
3/4 3-3	3/4 3-3
3/4 3-4	3/4 3-4
3/4 3-5	3/4 3-5
3/4 3-6	3/4 3-6
3/4 3-7	3/4 3-7
3/4 3-11	3/4 3-11
3/4 3-12	3/4 3-12
3/4 3-13	3/4 3-13
3/4 3-14	3/4 3-14
3/4 3-22	3/4 3-22
3/4 3-23	3/4 3-23
3/4 3-24	3/4 3-24
3/4 3-29	3/4 3-29
3/4 3-34	3/4 3-34
3/4 3-35	3/4 3-35
3/4 3-36	3/4 3-36
3/4 3-37	3/4 3-37
3/4 3-38	3/4 3-38
B 3/4 3-1	B 3/4 3-1

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
7. Overpower ΔT					
Four Loop Operation	4	2	3	1, 2	6
Three Loop Operation	(**)	(**)	(**)	(**)	(**)
8. Pressurizer Pressure-Low	4	2	3	1	6
9. Pressurizer Pressure--High	4	2	3	1, 2	6
10. Pressurizer Water Level--High	3	2	2	1	6
11. Low Reactor Coolant Flow					
a. Single Loop (Above P-8)	3/loop	2/loop in any operating loop	2/loop in each operating loop	1	6
b. Two Loops (Above P-7 and below P-8)	3/loop	2/loop in two operating loops	2/loop each operating loop	1	6
12. Steam Generator Water Level--Low-Low	4/stm. gen.	2/stm. gen. in any operating stm. gen.	3/stm. gen. each operating stm. gen.	1, 2	6

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
13. Undervoltage-Reactor Coolant Pumps (above P-7)	4-1/bus	2	3	1	6
14. Underfrequency-Reactor Coolant Pumps (above P-7)	4-1/bus	2	3	1	6
15. Turbine Trip					
a. Low Fluid Oil Pressure	3	2	2	1	6
b. Turbine Stop Valve Closure	4	4	1	1	11
16. Safety Injection Input from ESF	2	1	2	1, 2	7
17. Reactor Trip System Interlocks					
a. Intermediate Range Neutron Flux, P-6	2	1	2	2##	8
b. Low Power Reactor Trips Block, P-7					
P-10 Input	4	2	3	1	8
or					
P-13 Input	2	1	2	1	8
c. Power Range Neutron Flux, P-8	4	2	3	1	8
d. Low Setpoint Power Range Neutron Flux, P-10	4	2	3	1, 2	8
e. Turbine Impulse Chamber Pressure, P-13	2	1	2	1	8

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
18. Reactor Trip Breakers	2	1	2	1, 2	9, 12
	2	1	2	3*, 4*, 5*	10
19. Automatic Trip and Interlock Logic	2	1	2	1, 2	7
	2	1	2	3*, 4*, 5*	10

TABLE 3.3-1 (Continued)
TABLE NOTATION

*With the Reactor Trip System breakers in the closed position, the Control Rod Drive System capable of rod withdrawal.

**Values left blank pending NRC approval of three loop operation.

##Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

###Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours,

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1, and

c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER within 4 hours; or, the QUADRANT POWER TILT RATIO is monitored at least once per 12 hours per Specification 4.2.4.2.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 3 - With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:

a. Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and

b. Above the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint but below 10% of RATED THERMAL POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 10% of RATED THERMAL POWER.

ACTION 4 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement suspend all operations involving positive reactivity changes.

ACTION 5 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, within 1 hour and at least once per 12 hours thereafter.

ACTION 6 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1 and Specification 4.3.2.1.

ACTION 7 - With the number of OPERABLE Channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

ACTION 8 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Manual Reactor Trip	N.A.	N.A.	N.A.	R (11)	N.A.	1, 2, 3*, 4*, 5*
2. Power Range, Neutron Flux High Setpoint	S	D(2, 4), M(3, 4), Q(4, 6), R(4, 5)	Q	N.A.	N.A.	1, 2
Low Setpoint	S	R(4)	S/U(1)	N.A.	N.A.	1###, 2
3. Power Range, Neutron Flux, High Positive Rate	N.A.	R(4)	Q	N.A.	N.A.	1, 2
4. Intermediate Range, Neutron Flux	S	R(4, 5)	S/U(1)	N.A.	N.A.	1###, 2
5. Source Range, Neutron Flux	S	R(4, 5)	S/U(1),Q(9)	N.A.	N.A.	2##, 3, 4, 5
6. Overtemperature ΔT	S	R(15)	Q	N.A.	N.A.	1, 2
7. Overpower ΔT	S	R(15)	Q	N.A.	N.A.	1, 2
8. Pressurizer Pressure--Low	S	R	Q	N.A.	N.A.	1
9. Pressurizer Pressure--High	S	R	Q	N.A.	N.A.	1, 2
10. Pressurizer Water Level--High	S	R	Q	N.A.	N.A.	1
11. Low Reactor Coolant Flow	S	R	Q	N.A.	N.A.	1

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
12. Steam Generator Water Level-- Low-Low	S	R	Q	N.A.	N.A.	1, 2
13. Undervoltage - Reactor Coolant Pumps	N.A.	R	N.A.	Q	N.A.	1
14. Underfrequency - Reactor Coolant Pumps	N.A.	R	N.A.	Q	N.A.	1
15. Turbine Trip						
a. Low Fluid Oil Pressure	N.A.	R	N.A.	S/U(1, 10)	N.A.	1
b. Turbine Stop Valve Closure	N.A.	R	N.A.	S/U(1, 10)	N.A.	1
16. Safety Injection Input from ESF	N.A.	N.A.	N.A.	R	N.A.	1, 2
17. Reactor Trip System Interlocks						
a. Intermediate Range Neutron Flux, P-6	N.A.	R(4)	N.A	N.A.	N.A.	2##
b. Power Range Neutron Flux, P-8	N.A.	R(4)	N.A	N.A.	N.A.	1

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
c. Low Setpoint Power Range Neutron Flux, P-10	N.A.	R(4)	N.A	N.A.	N.A.	1, 2
d. Turbine Impulse Chamber Pressure, P-13	N.A.	R	N.A.	N.A.	N.A.	1
18. Reactor Trip Breaker	N.A.	N.A.	N.A.	M (7, 12)	N.A.	1, 2, 3*, 4*, 5*
19. Automatic Trip and Interlock Logic	N.A.	N.A.	N.A.	N.A.	M (7)	1, 2, 3*, 4*, 5*
20. Reactor Trip Bypass Breakers	N.A.	N.A.	N.A.	M(13),R(14)	N.A.	1, 2, 3*, 4*, 5*

TABLE 4.3-1 (Continued)

TABLE NOTATION

* - With the Reactor Trip System breakers closed and the Control Rod Drive System capable of rod withdrawal.

- Below P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

- Below P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.

(1) - If not performed in previous 31 days.

(2) - Comparison of calorimetric to excore power indication above 15% of RATED THERMAL POWER. Adjust excore channel gains consistent with calorimetric power if absolute difference is greater than 2%. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(3) - Single point comparison of incore to excore axial flux difference above 15% of RATED THERMAL POWER. Recalibrate if the absolute difference is greater than or equal to 3%. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(4) - Neutron detectors may be excluded from CHANNEL CALIBRATION.

(5) - Detector plateau curves shall be obtained, evaluated, and compared to manufacturer's data. For the Intermediate Range and Power Range Neutron Flux channels the provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(6) - Incore - Excore Calibration, above 75% of RATED THERMAL POWER. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(7) - Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS.

(8) - Deleted.

(9) - Quarterly surveillance in MODES 3*, 4* and 5* shall also include verification that permissives P-6 and P-10 are in their required state for existing plant conditions by observation of the permissive annunciator window. Quarterly surveillance shall include verification of the High Flux at Shutdown Alarm Setpoint of less than or equal to five times background.

(10) - Setpoint verification is not required.

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					
1) 4 kV Loss of Voltage	3/Bus	2/Bus Either Bus	2/Bus	1, 2, 3	19
2) 4 kV Degraded Voltage	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	15b
9. Loss of Power					
a. 4 kV Loss of Voltage	3/Bus	2/Bus	2/Bus	1, 2, 3, 4	15a
b. 4 kV 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

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 12 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 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 6 hours.

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 6 hours. With more than one channel inoperable, enter Specification 3.8.1.1.

ACTION 15b 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 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 4 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.

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 18 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 19 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1 and Specification 4.3.2.1.

ACTION 20 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

ACTION 21 - With the number of OPERABLE Channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable Channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

ACTION 22 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the action required by Specification 3.7.1.4.

ACTION 24 - With the number of OPERABLE channels less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated auxiliary feedwater pump inoperable and take the action required by Specification 3.7.1.2. With the channels associated with more than one auxiliary feedwater pump inoperable, immediately declare the associated auxiliary feedwater pumps inoperable and take the action required by Specification 3.7.1.2.

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		
Unit 1		
a) 4 kV Loss of Voltage	3174 ± 45 volts with a 8.5 ± 0.5 second time delay	≥ 3122 volts
b) 4 kV Degraded Voltage	≥ 3678.5 volts with ≤ 11 second with SI and ≤ 600 second without SI time delays	≥ 3661 volts
Unit 2		
a) 4 kV Loss of Voltage	3157 ± 45 volts with a 8.5 ± 0.5 second time delay	≥ 3108 volts
b) 4 kV Degraded Voltage	≥ 3703 volts with ≤ 11 second with SI and ≤ 600 second without SI time delays	≥ 3685.5 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 5b. 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 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	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3
d. Pressurizer Pressure-Low-Low	S	R	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3
e. Steam Line Pressure--Low	S	R	Q	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	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3

TABLE 4.3-2 (Continued)

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
3. Containment Isolation								
a. Phase "A" Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							
b. Phase "B" Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
3) Containment Pressure-High-High	S	R	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3
c. Purge and Exhaust Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A	M(1)	M(1)	Q	1, 2, 3, 4
3) Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements.							

TABLE 4.3-2 (Continued)

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
4. Steam Line Isolation								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3
c. Containment Pressure--High-High	S	R	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3
d. Negative Steam Line Pressure Rate-High	S	R	Q	N.A.	N.A.	N.A.	N.A.	3
e. Steam Line Pressure--Low	S	R	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3
5. Turbine Trip and Feedwater Isolation								
a. Automatic Actuation Logic and Actuation Relay	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2
b. Steam Generator Water Level-High-High (P-14)	S	R	Q	N.A.	M(1)	M(1)	Q	1, 2, 3
c. Doghouse Water Level-High (Feedwater Isolation Only)	S	N.A	N.A	R	N.A.	N.A.	N.A.	1, 2
6. Containment Pressure Control System Start Permissive/Termination	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4

TABLE 4.3-2 (Continued)

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
7. Auxiliary Feedwater								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3
c. Steam Generator Water Level--Low-Low	S	R	Q	N.A.	N.A.	N.A	N.A.	1, 2, 3
d. Auxiliary Feedwater Suction Pressure-Low	N.A.	R	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3
e. Safety Injection	See Item 1. above for all Safety Injection Surveillance Requirements							
f. Station Blackout	N.A.	N.A.	N.A	R	N.A.	N.A.	N.A.	1, 2, 3
g. Trip of Main Feedwater Pumps	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A	1, 2
8. Automatic Switchover to Recirculation RSWT Level	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3
9. Loss of Power								
a. 4 kV Loss of Voltage	N.A.	R	N.A.	M	N.A.	N.A.	N.A	1, 2, 3, 4
b. 4 kV Degraded Voltage	N.A.	R	N.A.	M	N.A.	N.A.	N.A	1, 2, 3, 4

TABLE 4.3-2 (Continued)

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
10. Engineered Safety Features Actuation System Interlocks								
a. Pressurizer Pressure, P-11	N.A.	R	Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3
b. Low, Low T_{avg}, P-12	N.A.	R	Q	N.A	N.A.	N.A.	N.A.	1, 2, 3
c. Reactor Trip, P-4	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3
d. Steam Generator Level, P-14	See Item 5b for all surveillance requirements.							

3/4.3.1 and 3/4.3.2 REACTOR TRIP AND ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

The OPERABILITY of the Reactor Trip and Engineered Safety Features Actuation System instrumentation and interlocks ensure that: (1) the associated ACTION and/or Reactor trip will be initiated when the parameter monitored by each channel or combination thereof reaches its Setpoint, (2) the specified coincidence logic and sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance consistent with maintaining an appropriate level of reliability of the Reactor Protection and Engineered Safety Features Instrumentation and (3) sufficient system functions capability is available from diverse parameters.

The OPERABILITY of these systems is required to provide the overall reliability, redundancy, and diversity assumed available in the facility design for the protection and mitigation of accident and transient conditions. The integrated operation of each of these systems is consistent with the assumptions used in the accident analyses. The Surveillance Requirements specified for these systems ensure that the overall system functional capability is maintained comparable to the original design standards. The periodic surveillance tests performed at the minimum frequencies are sufficient to demonstrate this capability.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," and supplements to that report. Surveillance intervals and out of service times were determined based on maintaining an appropriate level of reliability of the Reactor Protection System and Engineered Safety Features instrumentation. The NRC Safety Evaluation Reports for the WCAP-10271 series were provided in letters dated February 21, 1985 from C. O. Thomas (NRC) to J. J. Sheppard (WOG), February 22, 1989 from C. E. Rossi (NRC) to R. A. Newton (WOG), and April 30, 1990 from C. E. Rossi (NRC) to G. T. Goering (WOG).

The measurement of response time at the specified frequencies provides assurance that the Reactor trip and the Engineered Safety Feature actuation associated with each channel is completed within the time limit assumed in the accident analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable. Response time may be demonstrated by any series of sequential, overlapping, or total channel test measurements provided that such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either: (1) in-place, onsite, or offsite test measurements, or (2) utilizing replacement sensors with certified response times.

The Engineered Safety Features Actuation System senses selected plant parameters and determines whether or not predetermined limits are being exceeded. If they are, the signals are combined into logic matrices sensitive to combinations indicative of various accidents, events, and transients. Once the required logic combination is completed, the system sends actuation signals to those Engineered Safety Features components whose aggregate function best serves the requirements of the condition. As an example, the

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 165 TO FACILITY OPERATING LICENSE NPF-9

AND AMENDMENT NO. 147 TO FACILITY OPERATING LICENSE NPF-17

DUKE POWER COMPANY

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-369 AND 50-370

1.0 INTRODUCTION

By letter dated January 13, 1995, as supplemented by letter dated August 30, 1995, Duke Power Company (the licensee) submitted a request for changes to the McGuire Nuclear Station, Units 1 and 2, Technical Specifications (TS). The requested changes would increase the surveillance test intervals (STIs) and allowed outage times (AOTs) for the reactor trip system (RTS) and engineered safety features actuation system (ESFAS). The licensee's submittal includes the justification for the proposed changes. The August 30, 1995, letter provided clarifying information that did not change the scope of the January 13, 1995, application and the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

The Westinghouse Owners Group (WOG) previously proposed generic TS changes to increase STIs and AOTs to minimize the number of inadvertent trips and challenges to the safety systems while maintaining the benefits of routine tests and maintenance activities to ensure the reliability of the RTS and ESFAS instruments. The WOG published its proposals in WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation Systems," dated January 1983. This document was later revised several times in response to the staff's comments. The staff issued three safety evaluation reports (SERs); RTS SER on February 21, 1985 (WCAP-10271 RTS SER), ESFAS SER on February 22, 1989 (WCAP-10271 ESFAS SER), and a supplemental SER (SSER) on April 30, 1990 (WCAP-10271 SSER). The staff also issued an additional clarification letter dated July 24, 1985 (WCAP-10271 RTS CLARIFICATION LETTER).

3.0 EVALUATION OF PROPOSED REVISIONS

The staff evaluated the licensee's proposed TS changes to verify that they were consistent with the changes pre-approved in the above SERs and that the licensee has met the conditions identified in the SERs associated with those changes. The staff's evaluation is included in the subsequent subsections 3.1 and 3.2:

3.1 VERIFICATION THAT PROPOSED CHANGES ARE CONSISTENT WITH THE PRE-APPROVED CHANGES

3.1.1 Table 4.3-1, REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

(1) Proposed change: Functional Units 2 (High Setpoint), 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14. Change OPERATIONAL TEST intervals from monthly to quarterly.

Evaluation: The above change is consistent with the pre-approved changes accepted by the staff in the WCAP-10271 RTS SER and is, therefore, acceptable.

(2) Proposed Change: Functional Units 2 (Low Setpoint), 4 and 5. Change the STI for the ANALOG CHANNEL OPERATIONAL TEST (ACOT) from monthly to startup. Also, change Notation 1 to require the ACOT to be performed during STARTUP if not performed during the previous 31 days rather than the previous 7 days. Additionally, for Functional Unit 5, change Notation 9 to require the ACOT to be performed quarterly rather than monthly during extended shutdown.

Evaluation: The above changes are acceptable because they are consistent with the pre-approved changes accepted by the staff in the WCAP-10271 RTS SER and the WCAP-10271 RTS CLARIFICATION LETTER.

(3) Proposed Change: Delete the existing Functional Unit 17.b (Low Power Reactor Trips Block, P-7) from the RTS Instrument Surveillance Requirements.

Evaluation: Functional Unit 17.b is fully tested under the surveillances performed on Functional Units 17.d (Low Setpoint Power Range Neutron Flux, P-10) and Functional Unit 17.e (Turbine Impulse Chamber Pressure, P-13). The deletion of Functional Unit 17.b from TS Table 4.3-1 is editorial in nature and does not change the existing requirement and is, therefore, acceptable to the staff.

(4) Proposed Change: Functional Unit 17. Change the STI for the ACOT for Functional Unit 17 from monthly to N.A. (not applicable). Delete Table 4.3-1 Notation 8 as it does not apply in the refueling mode.

Evaluation: Changing the STI for the ACOT for Functional Unit 17 from "monthly" to "N.A." effectively changes this STI from "monthly" to "refueling outage" because the CHANNEL CALIBRATION, which continues to be required by TS during each refueling outage, encompasses the testing required by the ACOT. Therefore, this change is acceptable because it is consistent with the pre-approved changes accepted by the staff in the WCAP-10271 RTS CLARIFICATION LETTER. Also, the staff finds it acceptable to delete Notation 8 since it does not apply in the refueling mode.

3.1.2 Table 3.3-1, REACTOR TRIP SYSTEM INSTRUMENTATION ALLOWABLE OUTAGE TIME REQUIREMENTS

(1) Proposed change: Delete from the RTS Table 3.3.1 the notation, "***Comply with the provisions of Specification 3.3.2 for any portion of the channel required to be OPERABLE by Specification 3.3.2."

Evaluation: The "***" notation required that RTS instrument channels for Functional Units 8 (Pressurizer Pressure-Low) and 9 (Pressurizer Pressure High), and 12 (Steam Generator Water Level--Low-Low) channels be tested per surveillance frequency and/or mode as described in Specification 3.3.2 (for ESF instrumentation channels) because the ESFAS requirements were more restrictive. This notation became a part of the McGuire TS through the issuance by the staff on April 7, 1986 of TS changes that increased the AOT for the RTS analog channels, and satisfied a condition in the WCAP-10271 RTS SER for all channels that provided input to both the RTS and the ESFAS. Now that the previously approved relaxations for the McGuire RTS channels are being applied to the McGuire ESFAS channels, this condition is no longer applicable. Therefore, the *** and the associated cautionary note can be removed. This change is acceptable to the staff.

(2) Proposed Change: Add new ACTION 7 to allow 6 hours to restore an inoperable channel to operable status before requiring shutdown to HOT STANDBY within the next 6 hours, and to allow bypass of a channel for up to 4 hours for surveillance testing, provided the other channel is OPERABLE. Make the new ACTION 7 (instead of ACTION 9) applicable to Functional Units 16 (Safety Injection Input from ESF) and 19 (Automatic Trip and Interlock Logic).

Evaluation: The previously applicable ACTION 9 requires the plant "to be in at least HOT STANDBY within 6 hours, however, one channel may be bypassed for up to 2 hours for surveillance test provided the other channel is operable."

The new ACTION 7 allows 6 hours to restore the inoperable channel before requiring shutdown to HOT STANDBY within the next 6 hours, and allows bypassing one channel up to 4 hours, instead of 2 hours, for surveillance testing.

The above change is acceptable because it is consistent with the pre-approved changes accepted by the staff in the WCAP-10271 ESFAS SER and the WCAP-10271 SSER.

(3) Proposed Change: For Functional Unit 18 (Reactor Trip Breakers), the licensee proposes to change ACTION 9 to allow bypassing one channel for surveillance testing for 4 hours instead of 2 hours.

EVALUATION: The staff stated in the WCAP-10271 SSER that the above proposed extension from 2 hours to 4 hours in the case of the Reactor Trip Breakers was not acceptable because it unnecessarily increases plant risk by reducing the availability of these breakers. This proposed

change for ACTION 9 is, therefore, not acceptable because it is not consistent with the staff's approval of WCAP-10271.

3.1.3 Table 4.3-2, ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

(1) Proposed Change: Functional Units 1.c, 1.d, 1.e, 2.c, 3.b.3, 4.c, 4.d, 4.e, 5.b, 7.c, 10.a and 10.b. Revise the ACOT entries to increase the STI from monthly to quarterly for each of the above functional units.

Evaluation: This change is acceptable because it is consistent with the pre-approved changes accepted by the staff in the WCAP-10271 ESFAS SER and is, therefore, acceptable.

(2) Proposed Change: Replace the current surveillance requirements for Functional Unit 5b with the current surveillance requirements for Functional Unit 10d. Delete the current surveillance requirements for Functional Unit 10d from Table 4.3-2.

Evaluation: This change is editorial in nature and does not change the existing requirement and is, therefore, acceptable to the staff.

3.1.4 Table 3.3-3, ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION ALLOWABLE OUTAGE TIME REQUIREMENTS

(1) Proposed change: For Functional Units 1c, 1d, 1e, 4d, 4e, 5b, 7c1, 7c2, 7f1, 7f2, 9a and 9b, increase the time that an inoperable ESFAS channel may be maintained in an untripped condition from 1 hour to 6 hours (ACTIONs 15, 15a and 19).

Evaluation: The revised ACTION statements require an inoperable channel to be placed in the tripped condition within 6 hours. Thus, the time for putting the inoperable channel in the tripped condition is extended from 1 hour to 6 hours. This proposed change is consistent with the pre-approved changes accepted by the staff in the WCAP-10271 ESFAS SER and is, therefore, acceptable.

(2) Proposed Change: For Functional Units 1b, 1d, 2b, 2c, 3a2, 3b2, 3b3, 4b, 4c, 5a, 7b, 7c1, 7c2, 7f1 and 7f2, increase the time that an inoperable ESFAS channel may be bypassed to allow testing of another channel in the same function from 2 hours to 4 hours (ACTIONs 14, 16, 19 and 21).

Evaluation: The revision to the ACTION statements allows the inoperable channel to be placed in a bypassed status up to 4 hours instead of the current 2 hours for surveillance testing of other channels in the same function per Specification 4.3.2.1. The proposed changes are consistent with the pre-approved changes accepted by the staff in the WCAP-10271 ESFAS SER and are, therefore, acceptable.

(3) Proposed change: For Functional Units 1b, 2b, 3a2 and 3b2, change ACTION 14 to increase the time allotted to reach HOT SHUTDOWN from 6 hours to

12 hours when the number of operable channels is one less than the Minimum Channels OPERABLE requirement.

Evaluation: The above change is consistent with the pre-approved change accepted by the staff in the WCAP-10271 ESFAS SER and is, therefore, acceptable.

(4) Proposed Change: For Functional Units 4b, 5a and 7b, revise ACTION 21 to allow 6 hours to restore an inoperable channel to OPERABLE status before requiring shutdown to HOT STANDBY within the next 6 hours.

Evaluation: If the number of operable channels is one less than the minimum number of Channels OPERABLE required, existing ACTION 21 requires the plant to be in HOT STANDBY within 6 hours. The revised action-statement allows 6 hours to restore the inoperable channel to OPERABLE status before requiring shutdown to HOT STANDBY within the next 6 hours. The above change is consistent with the pre-approved change accepted by the staff in the WCAP-10271 ESFAS SER and is, therefore, acceptable.

3.2 VERIFICATION OF CONDITIONS

In the proposed TS change submittal, the licensee confirmed that the conditions to be satisfied, as identified by the staff in the generic SERs for WCAP-10271, have been met as described below.

(1) Testing on a staggered basis was originally stipulated in the WCAP-10271 RTS SER for RTS channel surveillances changed to the quarterly test frequency. However, this condition was later removed in the WCAP-10271 ESFAS SER. Therefore, staggered testing is not specified for McGuire as part of the proposed RTS and ESFAS surveillance frequency extension. This is acceptable to the staff.

(2) The WCAP-10271 RTS SER specified implementation or confirmation of plant procedures that identify/evaluate common cause RTS channel failures and specify additional testing for plausible common cause failures. The licensee stated that its existing plant procedures require RTS/ESFAS failures to be evaluated for common cause. Testing of additional channels is conducted when there is reason to believe a common cause failure mechanism exists. Also, problems that may be introduced into the equipment as a result of calibration and other maintenance or testing activities also are evaluated for common cause potential. This is consistent with the WCAP-10271 RTS SER condition and is, therefore, acceptable to the staff.

(3) The WCAP-10271 RTS SER stipulated that approval of routine channel testing in a bypassed condition is contingent on the capability of the RTS design to allow such testing without lifting leads or installing temporary jumpers. The licensee stated that the McGuire design currently provides installed bypass capability within the 7300 Protection and Control System and thus, lifting of leads or installing temporary jumpers to conduct routine channel testing is not necessary. This is consistent

with the WCAP-10271 RTS SER condition and is, therefore, acceptable to the staff.

(4) The WCAP-10271 RTS SER permits the revisions to the RTS TS to apply to the operational test interval for the reactor coolant pump undervoltage and underfrequency functional units (Functional Units 13 & 14). The licensee proposes in Table 4.3-1 to change the Operational Test interval for these units. This change is consistent with the WCAP-10271 RTS SER condition and is, therefore, acceptable to the staff.

(5) The WCAP-10271 RTS SER states that approval to extend the STI and AOT for channels that provide dual inputs to other safety related systems such as ESFAS, applies to the RTS function only. However, because the WCAP-10271 ESFAS SER has been issued by the staff and all of the relaxations for the RTS analog channels are now applicable to the ESFAS analog channels, this condition no longer applies. Thus, the licensee's proposed TS change deletes from Table 3.3-1 the cautionary note, "***Comply with the provisions of Specification 3.3.2 and portion of the channel required to be OPERABLE by Specification 3.3.2." This change is consistent with the WCAP-10271 RTS and ESFAS SERs and is, therefore, acceptable to the staff.

(6) The WCAP-10271 RTS and ESFAS SERs indicated that approval of increased STIs is contingent on confirmation by the licensee that their setpoint methodology includes sufficient margin to offset the additional drift anticipated as a result of less frequent surveillance. The licensee reviewed "as found" and "as left" data for the RTS and ESFAS setpoints for a 16-month period for McGuire Unit 1, and for a 14-month period for Mcguire Unit 2. The licensee stated that sufficient margins are present to offset the drift anticipated as a result of quarterly surveillance. This is consistent with the conditions of the WCAP-10271 RTS SER and the WCAP-10271 ESFAS SER and is, therefore, acceptable to the staff.

(7) The WCAP-10271 ESFAS SER states that the licensee must confirm the applicability of the generic analyses to the subject plant. In response, the licensee confirmed that the WCAP-10271 methodology is applicable to the McGuire propqsed TS change. This response is consistent with the condition set forth in the WCAP-10271 ESFAS SER and is, therefore, acceptable to the staff.

4.0 STAFF CONCLUSION

Based on the above the staff concludes, with the one exception noted below, that the proposed TS changes to McGuire Units 1 and 2 RTS and ESFAS surveillance test intervals and allowable outage times are consistent with the staff's previous generic approval and required plant-specific conditions as indicated in the SERs for WCAP-10271 and its revisions and supplements and are, therefore, acceptable.

The one proposed TS change that the staff found to be not acceptable is the change to ACTION 9 for Functional Unit 18 (Reactor Trip Breakers). See Section 3.1.2(3), above, for the staff's comments on this proposed change.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the North Carolina State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC 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 radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (60 FR 14019 dated March 15, 1995). 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 the amendments.

5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Keith Mortensen

Date: February 15, 1996