Docket No. 50-423

Dear Mr. Mroczka:

Mr. Edward J. Mroczka Senior Vice President Nuclear Engineering and Operations Northeast Nuclear Energy Company Post Office Box 270 Hartford, Connecticut 06141-0270 DISTRIBUTION Docket File NRC & Local PDRs Gray File S. Varga B. Boger S. Norris D. Jaffe OGC D. Hagan E. Jordan

B. Grimes T. Meek(4) W. Jones E. Butcher ACRS(10) GPA/PA ARM/LFMB

SUBJECT: ISSUANCE OF AMENDMENT (TAC NOS. 69037 and 69348)

The Commission has issued the enclosed Amendment No. 28 to Facility Operating License No. NPF-49 for Millstone Nuclear Power Station, Unit No. 3, in response to your applications dated July 21 and September 2, 1988.

The amendment deletes the following tables, identifying electrical equipment and containment isolation valves, from the Millstone Unit 3 Technical Specifications (TS):

- oTable 8.3-1 "Containment Penetration Conductor Overcurrent Protective Devices"
- °Table 3.8-2a "Motor-Operated Valves Thermal Overload Protection Bypassed Only Under Accident Conditions"
- °Table 3.8-2b "Motor-Operated Valves Thermal Overload Protection Not Bypassed Under Accident Conditions"
- oTable 3.6-2 "Containment Isolation Valves"

The references to the above TS Tables, in their respective TS, are also deleted.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

original signed by

David H. Jaffe, Project Manager Project Directorate I-4 Division of Reactor Projects I/II Office of Nuclear Reactor Regulation

8901100331 881219 PDR ADOCK 05000423 P PDC PDC

Enclosures:

1. Amendment No. to NPF-49

2. Safety Evaluation

cc w/enclosures: See next page

LA:PDI-4 SNOFFIS 12/6/88



JSto1z 7/88

Docket No. 50-423

Dear Mr. Mroczka:

Mr. Edward J. Mroczka Senior Vice President Nuclear Engineering and Operations Northeast Nuclear Energy Company Post Office Box 270 Hartford, Connecticut 06141-0270 DISTRIBUTION Docket File NRC & Local PDRs Gray File S. Varga B. Boger S. Norris D. Jaffe OGC D. Hagan E. Jordan

B. Grimes T. Meek(4) W. Jones E. Butcher ACRS(10) GPA/PA ARM/LFMB

SUBJECT: ISSUANCE OF AMENDMENT (TAC NOS. 69037 and 69348)

The Commission has issued the enclosed Amendment No. 28 to Facility Operating License No. NPF-49 for Millstone Nuclear Power Station, Unit No. 3, in response to your applications dated July 21 and September 2, 1988.

The amendment deletes the following tables, identifying electrical equipment and containment isolation valves, from the Millstone Unit 3 Technical Specifications (TS):

- °Table 8.3-1 "Containment Penetration Conductor Overcurrent Protective Devices"
- *Table 3.8-2a "Motor-Operated Valves Thermal Overload Protection Bypassed Only Under Accident Conditions"
- oTable 3.8-2b "Motor-Operated Valves Thermal Overload Protection Not Bypassed Under Accident Conditions"
- "Table 3.6-2 "Containment Isolation Valves"

The references to the above TS Tables, in their respective TS, are also deleted.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

original signed by

David H. Jaffe, Project Manager Project Directorate I-4 Division of Reactor Projects I/II Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. to NPF-49

2. Safety Evaluation

cc w/enclosures: See next page

LA:PDI-4 SNOFFIS 12/6/88



JSto1z 12/7/88

12/1/188

Mr. E. J. Mroczka Northeast Nuclear Energy Company

cc:

• 4

Gerald Garfield, Esquire Day, Berry and Howard Counselors at Law City Place Hartford, Connecticut 06103-3499

W. D. Romberg, Vice President Nuclear Operations Northeast Utilities Service Company Post Office Box 270 Hartford, Connecticut 06141-0270

Kevin McCarthy, Director Radiation Control Unit Department of Environmental Protection State Office Building Hartford, Connecticut 06106

Bradford S. Chase, Under Secretary Energy Division Office of Policy and Management 80 Washington Street Hartford, Connecticut 06106

S. E. Scace, Station Superintendent Millstone Nuclear Power Station Northeast Nuclear Energy Company Post Office Box 128 Waterford, Connecticut 06385

C. H. Clement, Unit Superintendent Millstone Unit No. 3 Northeast Nuclear Energy Company Post Office Box 128 Waterford, Connecticut 06385

Ms. Jane Spector Federal Energy Regulatory Commission 825 N. Capitol Street, N.E. Room 8608C Washington, D.C. 20426

Burlington Electric Department c/o Robert E. Fletcher, Esq. 271 South Union Street Burlington, Vermont 05402 Millstone Nuclear Power Station Unit No. 3

R. M. Kacich, Manager Generation Facilities Licensing Northeast Utilities Service Company Post Office Box 270 Hartford, Connecticut 06141-0270

D. O. Nordquist Manager of Quality Assurance Northeast Nuclear Energy Company Post Office Box 270 Hartford, Connecticut 06141-0270

Regional Administrator Region I U. S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, Pennsylvania 19406

First Selectmen Town of Waterford Hall of Records 200 Boston Post Road Waterford, Connecticut 06385

W. J. Raymond, Resident Inspector Millstone Nuclear Power Station c/o U. S. Nuclear Regulatory Commission Post Office Box 811 Niantic, Connecticut 06357

M. R. Scully, Executive Director Connecticut Municipal Electric Energy Cooperative 268 Thomas Road Groton, Connecticut 06340

Michael L. Jones, Manager Project Management Department Massachusetts Municipal Wholesale Electric Company Post Office Box 426 Ludlow, Massachusetts 01056





NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.*

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 28 License No. NPF-49

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by Northeast Nuclear Energy Company, et al. (the licensee) dated July 21 and September 2, 1988 comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations 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:
 - 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.

8901100335 881219 PDR ADOCK 05000423 P PDC

^{*}Northeast Nuclear Energy Company is authorized to act as agent and representative for the following Owners: Central Maine Power Company, Central Vermont Public Service Corporation, Chicopee Municipal Lighting Plant, City of Burlington, Vermont, Connecticut Municipal Electric Light Company, Massachusetts Municipal Wholesale Electric Company, Montaup Electric Company, New England Power Company, The Village of Lyndonville Electric Department, Western Massachusetts Electric Company, and Vermont Electric Generation and Transmission Cooperative, Inc., and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

- 2. Accordingly, the license is amended by 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-49 is hereby amended to read as follows:
 - (2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 28, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in 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 the date of its issuance, to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION UX

John F. Stolz, Director Project Directorate I-4 Division of Reactor Projects I/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: December 19, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 28

14

FACILTIY OPERATING LICENSE NO. NPF-49

DOCKET NO. 50-423

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 provided to maintain document completeness.

Remove Insert ix ix xi xi 1-2 1-2 3/4 6-1 3/4 6-1 3/4 6-15 Thru 3/4 6-34 3/4 6-15 Thru 3/4 6-34 3/4 8-18 3/4 8-18 3/4 8-20 Thru 3/4 8-36 3/4 8-20 Thru 3/4 8-36 B3/4 6-3 B3/4 6-3 B3/4 8-3 B3/4 8-3

• •	۲					
	:					
• •	LIMITING COND	LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS				
	SECTION		<u>PAGE</u>			
	FIGURE 3.6-1	MAXIMUM ALLOWABLE PRIMARY CONTAINMENT AIR PARTIAL PRESSURE VERSUS SERVICE WATER TEMPERATURE	3/4 6-8			
		Air Temperature	3/4 6-9			
		Containment Structural Integrity	3/4 6-10			
		Containment Ventilation System	3/4 6-11			
	3/4.6.2	DEPRESSURIZATION AND COOLING SYSTEMS				
		Containment Quench Spray System	3/4 6-12			
		Recirculation Spray System	3/4 6-13			
		Spray Additive System	3/4 6-14			
	3/4.6.3	CONTAINMENT ISOLATION VALVES	3/4 6-15			
	3/4.6.4	COMBUSTIBLE GAS CONTROL				
		Hydrogen Monitors	3/4 6-35			
		Electric Hydrogen Recombiners	3/4 6-36			
	3/4.6.5	SUBATMOSPHERIC PRESSURE CONTROL SYSTEM				
		Steam Jet Air Ejector	3/4 6-37			
	3/4.6.6	SECONDARY CONTAINMENT				
		Supplementary Leak Collection and Release System	3/4 6-38			
		Enclosure Building Integrity	3/4 6-40			
		Enclosure Building Structural Integrity	3/4 6-41			
	3/4.7 PLANT S	YSTEMS				
	3/4.7.1 TUR	BINE CYCLE	* *			
	Saf	ety Valves	3/4 7-1			
	TABLE 3.7-1	MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES DURING FOUR LOOP OPERATION	3/4 7-2			
	TABLE 3.7-2	MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES THREE LOOP OPERATION	3/4 7-2			
	MILLSTONE - U	NIT 3 ix Amendment No. 28				

1

....

INDEX

}

}

)

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION		PAGE
TABLE 3.7	-3 STEAM LINE SAFETY VALVES PER LOOP	3/4 7-3
	Auxiliary Feedwater System	3/4 7-4
	Demineralized Water Storage Tank	3/4 7-6
	Specific Activity	3/4 7-7
TABLE 4.7	-1 SECONDARY COOLANT SYSTEM SPECIFIC ACTIVITY SAMPLE AND ANALYSIS PROGRAM	3/4 7-8
	Main Steam Line Isolation Valves	3/4 7-9
3/4.7.2	STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	3/4 7-10
3/4.7.3	REACTOR PLANT COMPONENT COOLING WATER SYSTEM	3/4 7-11
3/4.7.4	SERVICE WATER SYSTEM	3/4 7-12
3/4.7.5	ULTIMATE HEAT SINK	3/4 7-13
3/4.7.6	FLOOD PROTECTION	3/4 7-14
3/4.7.7	CONTROL ROOM EMERGENCY VENTILATION SYSTEM	3/4 7-15
3/4.7.8	CONTROL ROOM ENVELOPE PRESSURIZATION SYSTEM	3/4 7-18
3/4.7.9	AUXILIARY BUILDING FILTER SYSTEM	3/4 7-20
3/4.7.10	SNUBBERS	3/4 7-22
FIGURE 4.	7-1 SAMPLE PLAN 2) FOR SNUBBER FUNCTIONAL TEST	3/4 7-27
3/4.7.11	SEALED SOURCE CONTAMINATION	3/4 7-28
3/4.7.12	FIRE SUPPRESSION SYSTEMS	
	Fire Suppression Water System	3/4 7-30
	Spray and/or Sprinkler Systems	3/4 7-33
	CO ₂ Systems	3/4 7-35
	Halon Systems	3/4 7-37
	Fire Hose Stations	3/4 7-38
TABLE 3.7	-4 FIRE HOSE STATIONS	3/4 7-39
	Yard Fire Hydrants and Hydrant Hose Houses	3/4 7-40
TABLE 3.7	7-5 YARD FIRE HYDRANTS AND ASSOCIATED HYDRANT HOSE HOUSES.	3/4 7-41
3/4.7.13	FIRE RATED ASSEMBLIES	3/4 7-42
3/4.7.14	AREA TEMPERATURE MONITORING	3/4 7-44
TABLE 3 7	-6 ARFA TEMPERATURE MONITORING	3/4 7-45

3

- :

Х

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1	A.C. SOURCES		
	Operating	3/4	8-1
TABLE 4.8-	-1 DIESEL GENERATOR TEST SCHEDULE	3/4	8-8
	Shutdown	3/4	8-9
3/4.8.2	D.C. SOURCES		
	Operating	3/4	8-10
TABLE 4.8	-2a BATTERY SURVEILLANCE REQUIREMENTS	3/4	8-12
TABLE 4.8	-2b BATTERY CHARGER CAPACITY	3/4	8-13
	Shutdown	3/4	8-14
3/4.8.3	ONSITE POWER DISTRIBUTION		
	Operating	3/4	8-15
	Shutdown	3/4	8-17
3/4.8.4	ELECTRICAL EQUIPMENT PROTECTIVE DEVICES		
	Containment Penetration Conductor Overcurrent		
	Protective Devices	3/4	8-18
	Motor-Operated Valves Thermal Overload Protection	3/4	8-28
	Motor-Operated Valves Thermal Overload Protection		
	Not Bypassed	3/4	8-32
	A. C. Circuits Inside Containment	3/4	8-37
3/4.9 REI	FUELING OPERATIONS		

3/4.9.1	BORON CONCENTRATION	3/4 9-1
3/4.9.2	INSTRUMENTATION	3/4 9-2
3/4.9.3	DECAY TIME	3/4 9-3
3/4.9.4	CONTAINMENT BUILDING PENETRATIONS	3/4 9-4
3/4.9.5	COMMUNICATIONS	3/4 9-5

INDEX

)

)

)

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION		PAGE
3/4.9.6	REFUELING MACHINE	3/4 9-6
3/4.9.7	CRANE TRAVEL - SPENT FUEL STORAGE AREAS	3/4 9-7
3/4.9.8	RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION	
	High Water Level	3/4 9-8
	Low Water Level	3/4 9-9
3/4.9.9	CONTAINMENT PURGE AND EXHAUST ISOLATION SYSTEM	3/4 9-10
3/4.9.10	WATER LEVEL - REACTOR VESSEL	3/4 9-11
3/4.9.11	WATER LEVEL - STORAGE POOL	3/4 9-12
3/4.9.12	FUEL BUILDING EXHAUST FILTER SYSTEM	3/4 9-13
<u>3/4.10 S</u>	PECIAL TEST EXCEPTIONS	
3/4.10.1	SHUTDOWN MARGIN	3/4 10-1
3/4.10.2	GROUP HEIGHT, INSERTION, AND POWER DISTRIBUTION LIMITS	
	Four Loops Operating	3/4 10-2
	Three Loops Operating	3/4 10-3
3/4.10.3	PHYSICS TESTS	3/4 10-4
3/4.10.4	REACTOR COOLANT LOOPS	3/4 10-5
3/4.10.5	POSITION INDICATION SYSTEM - SHUTDOWN	3/4 10-6
<u>3/4.11</u> R	ADIOACTIVE EFFLUENTS	
3/4.11.1	LIQUID EFFLUENTS	
	Concentration	3/4 11-1
	Dose - Liquids	3/4 11-2
3/4.11.2	GASEOUS EFFLUENTS	
	Dose Rate	3/4 11-3
	Dose - Noble Gases	3/4 11-4
	Dose - Radioiodines, Radioactive Material in Particulate Form and Radionuclides Other Than Noble Gases	3/4 11-5
3/4.11.3	TOTAL DOSE	3/4 11-6

1

1.0 DEFINITIONS

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications.

ACTION

1.1 ACTION shall be that part of a Technical Specification which prescribes remedial measures required under designated conditions.

ACTUATION LOGIC TEST

1.2 An ACTUATION LOGIC TEST shall be the application of various simulated input combinations in conjunction with each possible interlock logic state and verification of the required logic output. The ACTUATION LOGIC TEST shall include a continuity check, as a minimum, of output devices.

ANALOG CHANNEL OPERATIONAL TEST

1.3 An ANALOG CHANNEL OPERATIONAL TEST shall be the injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY of alarm, interlock and/or trip functions. The ANALOG CHANNEL OPERATIONAL TEST shall include adjustments, as necessary, of the alarm, interlock and/or Trip Setpoints such that the Setpoints are within the required range and accuracy.

AXIAL FLUX DIFFERENCE

1.4 AXIAL FLUX DIFFERENCE shall be the difference in normalized flux signals between the top and bottom halves of a two section excore neutron detector.

CHANNEL CALIBRATION

1.5 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel such that it responds within the required range and accuracy to known values of input. The CHANNEL CALIBRATION shall encompass the entire channel including the sensors and alarm, interlock and/or trip functions and may be performed by any series of sequential, overlapping, or total channel steps such that the entire channel is calibrated.

CHANNEL CHECK

1.6 A CHANNEL CHECK shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

ł

DEFINITIONS

CONTAINMENT INTEGRITY

- 1.7 CONTAINMENT INTEGRITY shall exist when:
 - a. All penetrations required to be closed during accident conditions are either:
 - 1) Capable of being closed by an OPERABLE containment automatic isolation valve system, or operator action during periods when containment isolation valves may be opened under administrative control per Specification 4.6.1.1a.
 - 2) Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions.
 - b. All equipment hatches are closed and sealed,
 - c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,
 - d. The containment leakage rates are within the limits of Specification 3.6.1.2, and
 - e. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.8 CONTROLLED LEAKAGE shall be that seal water flow supplied to the reactor coolant pump seals.

CORE ALTERATIONS

1.9 CORE ALTERATIONS shall be the movement or manipulation of any component within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe conservative position.

DOSE EQUIVALENT I-131

1.10 DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microCurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in NRC Regulatory Guide 1.109, Revision 1, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I."

<u>E</u> - AVERAGE DISINTEGRATION ENERGY

1.11 \overline{E} shall be the average (weighted in proportion to the concentration of each radionuclide in the sample) of the sum of the average beta and gamma energies per disintegration (MeV/d) for the radionuclides in the sample.

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

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

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

- 4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:
 - a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves or operator action during periods when containment isolation valves are opened under administrative control,** and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions.
 - b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3; and
 - c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at a pressure not less than P_a , 54.1 psia (39.4 psig), and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than 0.60 L_a.

MILLSTONE - UNIT 3

^{*} Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

^{**} The following manual valves may be opened on an intermittent basis under administrative control. 3FPW-V661, 3FPW-666, 3SSP-V13, 3SSP-V14, 3HCS-V2, 3HCS-V3, 3HCS-V9, 3HCS-V10, 3HCS-V6, 3HCS-V13, 3SAS-V875, 3SAS-V50, 3CHS-V371, 3CCP-V886, 3CCP-V887, 3CVS-V13.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of less than or equal to L_a , 0.9% by weight of the containment air per 24 hours at P_a , 54.1 psia (39.4 psig);
- b. A combined leakage rate of less than 0.60 L_a for all penetrations and valves subject to Type B and C tests, when pressurized to P_a ; and
- c. A combined leakage rate of less than or equal to 0.01 L_a for all penetrations identified in Table 3.6-1 as Enclosure Building bypass leakage paths when pressurized to P_a .

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

ACTION:

With the measured overall integrated containment leakage rate exceeding 0.75 L_a , or the measured combined leakage rate for all penetrations and valves subject to Type B and C tests exceeding 0.60 L_a , or the combined bypass leakage rate exceeding 0.01 L_a , restore the overall integrated leakage rate to less than 0.75 L_a , the combined leakage rate for all penetrations subject to Type B and C tests to less than 0.60 L_a , and the combined bypass leakage rate to less than 0.01 L_a prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using methods and provisions of ANSI N45.4-1972:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 \pm 10 month intervals during shutdown at a pressure not less than P_a, 54.1 psia (39.4 psig) during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection;
- b. If any periodic Type A test fails to meet 0.75 L_a , the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet 0.75 L_a , a

Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 L_a at which time the above test schedule may be resumed;

MILLSTONE - UNIT 3

CONTAINMENT SYSTEMS

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 of the 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.

SURVEILLANCE

4.6.3.1 Each 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.

4.6.3.2 Each isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

- a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position,
- b. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position, and
- c. Verifying that on a Containment High Radiation test signal, each purge supply and exhaust isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power-operated or automatic valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

* The provisions of Specification 3.04 are not applicable.

MILLSTONE - UNIT 3

20

Amendment No. 28

۰,

MILLSTONE - UNIT 3

.

MILLSTONE - UNIT 3

ELECTRICAL POWER SYSTEMS

ONSITE POWER DISTRIBUTION

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.3.2 As a minimum, the following electrical busses shall be energized in the specified manner:

- a. One train of A.C. emergency busses consisting of one 4160-volt and four 480-volt A.C. emergency busses.
- b. Two 120-volt A.C. vital busses energized from their associated inverters connected to their respective D.C. busses, and
- c. Two 125-volt D.C. busses energized from their associated battery banks.

APPLICABILITY: MODES 5 and 6.

ACTION:

With any of the above required electrical busses not energized in the required manner, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, or movement of irradiated fuel, initiate corrective action to energize the required electrical busses in the specified manner as soon as possible, and within 8 hours, depressurize and vent the RCS through at least a 5.4 square inch vent.

SURVEILLANCE REQUIREMENTS

4.8.3.2 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

MILLSTONE - UNIT 3

ELECTRICAL POWER SYSTEMS

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4.1 All containment penetration conductor overcurrent protective devices shall be OPERABLE.

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

ACTION:

1 .

With one or more of the containment penetration conductor overcurrent protective device(s) inoperable:

- a. Restore the protective device(s) to OPERABLE status or deenergize the circuit(s) by tripping the associated backup circuit breaker or racking out or removing the inoperable circuit breaker within 72 hours, declare the affected system or component inoperable, and verify the backup circuit breaker to be tripped or the inoperable circuit breaker racked out or removed at least once per 7 days thereafter; the provisions of Specification 3.0.4 are not applicable to overcurrent devices in circuits which have their backup circuit breakers tripped, their inoperable circuit breakers racked out, or removed, or
- b. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.4.1 All containment penetration conductor overcurrent protective devices shall be demonstrated OPERABLE:

- a. At least once per 18 months:
 - By verifying that the medium voltage (4-15 kV) circuit breakers are OPERABLE by selecting, on a rotating basis, at least 10% of the circuit breakers of each voltage level, and performing the following:
 - a) A CHANNEL CALIBRATION of the associated protective relays,
 - b) An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breakers and control circuits function as designed, and

ELECTRICAL POWER SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- c) For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.
- 2) By selecting and functionally testing a representative sample of at least 10% of each type of lower voltage circuit breakers. Circuit breakers selected for functional testing shall be selected on a rotating basis.

Testing of air circuit breakers shall consist of injecting a current with a value equal to 300% of the pickup of the longtime delay trip element and 150% of the pickup of the short-time delay trip element, and verifying that the circuit breaker operates within the time delay band width for that current specified by the manufacturer. The instantaneous element shall be tested by injecting a current equal to $\pm 20\%$ of the pickup value of the element and verifying that the circuit breaker trips instantaneously with no intentional time delay.

Molded case circuit breakers and unitized starters (a frame size of 250 amps or less) shall be tested for long time delay at 300% as described above, and in addition tested for the instantaneous trip by injection a current value which falls within +40% (of the upper limit) and -25% (of the lower limit) of the manufacturers instantaneous trip current range and verifying the breaker trips instantaneously with no intentional time delay. For those molded case circuit breakers/unitized starters used in 480V circuits, if single pole instantaneous test results fall outside these tolerances, additional intantaneous testing shall be conducted using two poles in series, including A-B, B-C and C-A phase combinations. All combination test results shall fall within the specified tolerances.

Circuit breakers found inoperable during functional testing shall be restored to OPERABLE status prior to resuming operation. For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.

b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.

MILLSTONE - UNIT 3

1

· 1

. 1

. .

۰,

MILLSTONE - UNIT 3

MILLSTONE - UNIT 3

- **- - -** -

· •

•____

· .

,

MILLSTONE - UNIT 3

٠.,

ELECTRICAL POWER SYSTEMS

MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION

LIMITING CONDITION FOR OPERATION

3.8.4.2.1 Each thermal overload protection bypassed only under accident conditions for safety-related motor-operated valves shall be bypassed by an OPERABLE bypass device integral with the motor starter.

<u>APPLICABILITY</u>: Whenever the motor-operated valve is required to be OPERABLE.

ACTION:

With the thermal overload protection for one or more of the above required valves not bypassed under conditions for which it is designed to be bypassed, restore the inoperable device or provide a means to bypass the thermal overload within 8 hours, or declare the affected valve(s) inoperable and apply the appropriate ACTION Statement(s) of the affected system(s).

SURVEILLANCE REQUIREMENTS

4.8.4.2.1 The thermal overload protection for the above required valves shall be verified to be bypassed by the appropriate accident signal(s) by performance of a TRIP ACTUATION DEVICE OPERATIONAL TEST of the bypass circuitry during COLD SHUTDOWN or REFUELING at least once per 18 months.

MILLSTONE - UNIT 3

ы. -

ELECTRICAL POWER SYSTEMS

MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION NOT BYPASSED

LIMITING CONDITION FOR OPERATION

3.8.4.2.2 Each thermal overload protection not bypassed under accident conditions for safety-related motor-operated valves shall be operable.

<u>APPLICABILITY</u>: Whenever the motor-operated valve is required to be OPERABLE.

ACTION:

With the thermal overload protection for one or more of the above required valves inoperable, bypass the inoperable thermal overload within 8 hours; restore the inoperable thermal overload to OPERABLE status within 30 days or declare the affected valve(s) inoperable and apply the appropriate ACTION Statement(s) for the affected system(s).

SURVEILLANCE REQUIREMENTS

4.8.4.2.2 The thermal overload protection for the above required valves shall be demonstrated OPERABLE at least once per 18 months and following maintenance on the motor starter by the performance of a CHANNEL CALIBRATION of a representative sample of at least 25% of all thermal overloads for the above required valves.

Amendment No. 28

٠,

This page intentionally left blank

MILLSTONE - UNIT 3

.

MILLSTONE - UNIT 3

CONTAINMENT SYSTEMS

BASES

3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of General Design Criteria 54 through 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits specified for these isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA. FSAR Table 6.2-65 lists all containment isolation valves shall be made in accordance with Section 50.59 of 10CFR50 and approved by the Plant Operation Review Committee.

3/4.6.4 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the equipment and systems required for the detection and control of hydrogen gas ensures that this equipment will be available to maintain the hydrogen concentration within containment below its flammable limit during post-LOCA conditions. Either recombiner unit or the Mechanical Vacuum Pumps are capable of controlling the expected hydrogen generation associated with: (1) zirconium-water reactions, (2) radiolytic decomposition of water, and (3) corrosion of metals within containment. These Hydrogen Control Systems are consistent with the recommendations of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations in Containment Following a LOCA," March 1971.

3/4.6.5 SUBATMOSPHERIC PRESSURE CONTROL SYSTEM

3/4.6.5.1 STEAM JET AIR EJECTOR

The closure of the isolation valves in the suction of the steam jet air ejector ensures that: (1) the containment internal pressure may be maintained within its operation limits by the mechanical vacuum pumps, and (2) the containment atmosphere is isolated from the outside environment in the event of a LOCA. These valves are required to be closed for containment isolation.

CONTAINMENT SYSTEMS

BASES

3/4.6.6 SECONDARY CONTAINMENT

3/4.6.6.1 SUPPLEMENTARY LEAK COLLECTION AND RELEASE SYSTEM

The OPERABILITY of the Supplementary Leak Collection and Release System ensures that containment leakage occurring during LOCA conditions into the enclosure building will be filtered through the HEPA filters and charcoal adsorber trains prior to discharge to the atmosphere. Cumulative operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. This requirement is necessary to meet the assumptions used in the safety analyses and limit the SITE BOUNDARY radiation doses to within the dose guideline values of 10 CFR Part 100 during LOCA conditions. ANSI N510-1980 will be used as a procedural guide for surveillance testing.

3/4.6.6.2 ENCLOSURE BUILDING INTEGRITY

Secondary CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the primary containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with operation of the Supplementary Leak Collection and Release System, will limit the SITE BOUNDARY radiation doses to within the dose guideline values of 10 CFR Part 100 during accident conditions.

3/4.6.6.3 ENCLOSURE BUILDING STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the containment enclosure building will be maintained comparable to the original design standards for the life of the facility. Structural integrity is required to provide an annulus surrounding the steel vessel that can be maintained at a negative pressure during accident conditions. A visual inspection is sufficient to demonstrate this capability.

ì

ELECTRICAL POWER SYSTEMS BASES

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

The Surveillance Requirements applicable to lower voltage circuit breakers provide assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The molded case circuit breakers and unitized starters will be tested in accordance with Manufacturer's Instructions.

The OPERABILITY of the motor-operated valves thermal overload protection and integral bypass devices ensures that the thermal overload protection will not prevent safety-related valves from performing their function. The Surveillance Requirements for demonstrating the OPERABILITY of the thermal overload protection are in accordance with Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.

FSAR Tables 8.3-7, 8.3-8 and 8.3-9 list containment penetration conductor overcurrent protective devices and thermal overload protection bypassed only under accident conditions and thermal overload protection not bypassed under accident conditions. The addition or deletion of any device shall be made in accordance with Section 50.59 of 10CFR50 and approved by the Plant Operation Review Committee.

MILLSTONE - UNIT 3



UNITED STATES

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 28

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

INTRODUCTION

By applications for License Amendments dated July 21 and September 2, 1988, Northeast Nuclear Energy Company (NNECO) proposed changes to the Millstone Unit 3 Technical Specifications.

The proposed amendments would delete the following tables, identifying electrical equipment and containment isolation valves, from the Millstone Unit 3 Technical Specifications (TS):

- "Table 3.8-1 "Containment Penetration Conductor Overcurrent Protective Devices"
- °Table 3.8-2a "Motor-Operated Valves Thermal Overload Protection Bypassed Only Under Accident Conditions"
- oTable 3.8-2b "Motor-Operated Valves Thermal Overload Protection Not Bypassed Under Accident Conditions"
- "Table 3.6-2 "Containment Isolation Valves"

The references to the above TS Tables, in their respective TS, would also be deleted.

DISCUSSION AND EVALUATION

The Millstone Unit 3 TS currently contains a number of equipment lists that are the subject of Limiting Conditions for Operation (LCOs) and Surveillance Requirements (SR). In each case, these lists only contain equipment identifications and no other LCO/SR related information, (e.g., setpoints) are involved except with regard to TS Table 3.6-2. The licensee has proposed that the equipment lists contained in TS Tables 3.8-1, 3.8-1a, 3.8-2b and 3.6-2 be incorporated and maintained in the Millstone Unit 3 FSAR. No change to the LCO or SR is proposed. In the event that changes are needed to the information contained in the FSAR, the proposed changes would be evaluated under the process detailed in 10 CFR 50.59 and approved by the Plant Operations Review Committee. The licensee has also proposed removing references to the Tables in the subject TS but otherwise, the LCOs and SRs would remain unchanged.

With regard to TS Table 3.6-2, the table also describes certain manual valves which are permitted to be opened during operation as long as they are administratively controlled. Operation of these valves currently allows testing, maintenance and other activities on the following systems: Fire protection, post accident sampling, hydrogen recombiner, service air, RCS loop fill, demineralized water and containment vacuum. Licensee control of these valves when opened in Modes 1 through 4 is required since rapid closure would be necessary to isolate the containment during accident conditions. This specific listing has been included in a note in Technical Specification 4.6.1.1.a. and any future changes to this list would be controlled by the license amendment process.

We have reviewed the Millstone Unit 3 FSAR sections that will contain the lists of equipment that the licensee has proposed for deletion from the TS and conclude that it is acceptable in form and content. In this regard, although the FSAR pages contained in the July 21, 1988 application are designated as draft, a recent audit of the licensee's controlled copies of the Millstone Unit 3 FSAR indicates that the licensee has subsequently incorporated this material in the FSAR.

Based upon our review, we conclude that:

- [°] The current Millstone Unit 3 FSAR adequately describes the material to be deleted from the TS.
- The review process provided by 10 CFR 50.59 assures adequate consideration of any changes to the FSAR material. Moreover, since the NRC is furnished with annual summaries of changes made pursuant to 10 CFR 50.59, the NRC staff can exercise an appropriate level of oversight concerning the subject material to be deleted from the TS.

Accordingly, the proposed changes to the TS are acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment is administrative in nature. Accordingly, the amendment meets 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 the amendment.

CONCLUSION

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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: December 19, 1988

Principal Contributor: D.H. Jaffe