September 28, 1987

Docket No. 50-336

Mr. Edward J. Mroczka
Senior Vice President
Nuclear Engineering and Operations
Northeast Nuclear Energy Company
P. O. Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Mroczka:

Subject: Issuance of Amendment (TAC #s 54546 and 54399)

The Commission has issued the enclosed Amendment No. 120 to Facility Operating License No. DPR-65 for Millstone Nuclear Power Station, Unit No. 2, in partial response to your applications dated October 14, 1986 and July 21, 1987.

The amendment provides changes to the Technical Specifications for Millstone Unit 2 as follows: (1) a number of changes to the TS associated with post-TMI plant modifications as addressed in NRC's letter "NUREG-0737 Technical Specifications (Generic Letter No. 83-37)," dated November 1, 1983, (2) Limiting Conditions for Operation (LCOs) and Surveillance Requirements (SR) for the main steam radiation monitors which are added to existing TS 3/4.3.3.8, "Accident Monitoring Instrumentation," and (3) an instrument identified in TS Table 3.3-11 as the "Safety Valve Position Indicator Acoustic Flow Monitor" is now identified as "Safety Valve Position Indicator Acoustic Monitor." The TS associated with the Reactor Coolant Level Monitor will be addressed in future correspondence.

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,

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

Enclosures:
1. Amendment No. 120 to DPR-65
2. Safety Evaluation

cc w/enclosures:
See next page

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

NORTHEAST NUCLEAR ENERGY COMPANY

THE CONNECTICUT LIGHT AND POWER COMPANY

THE WESTERN MASSACHUSETTS ELECTRIC COMPANY

DOCKET NO. 50-336

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 120
License No. DPR-65

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 October 14, 1986 and July 21, 1987, 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.

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. DPR-65 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 120, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 28, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 120

FACILITY OPERATING LICENSE NO. DPR-65

DOCKET NO. 50-336

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
3/4 3-24	3/4 3-24
3/4 3-27	3/4 3-27
3/4 3-28	3/4 3-28
3/4 3-29	3/4 3-29
3/4 3-47	3/4 3-47
3/4 3-48	3/4 3-48
--	3/4 3-48a
3/4 3-49	3/4 3-49
3/4 4-23	3/4 4-23
3/4 6-20	3/4 6-20
3/4 7-16	3/4 7-16
--	B 3/4 4-8
6-19	6-19
6-23	6-23

TABLE 4.3-2

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. SAFETY INJECTION (SIAS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Containment Pressure - High	S	R	M	1, 2, 3
c. Pressurizer Pressure - Low	S	R	M	1, 2, 3
d. Automatic Actuation Logic	N.A.	N.A.	M(1)	1, 2, 3
2. CONTAINMENT SPRAY (CSAS)				
a. Manual (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Containment Pressure -- High - High	S	R	M	1, 2, 3
c. Automatic Actuation Logic	N.A.	N.A.	M(1)	1, 2, 3
3. CONTAINMENT ISOLATION (CIAS)				
a. Manual CIAS (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Manual SIAS (Trip Buttons)	N.A.	N.A.	R	N.A.
c. Containment Pressure - High	S	R	M	1, 2, 3
d. Pressurizer Pressure - Low	S	R	M	1, 2, 3
e. Automatic Actuation Logic	N.A.	N.A.	M(1)	1, 2, 3
4. MAIN STEAM LINE ISOLATION				
a. Steam Generator Pressure - Low	S	R	M	1, 2, 3
b. Automatic Actuation Logic	N.A.	N.A.	M(1)	1, 2, 3
5. ENCLOSURE BUILDING FILTRATION (EBFAS)				
a. Manual EBFAS (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Manual SIAS (Trip Buttons)	N.A.	N.A.	R	N.A.
c. Containment Pressure - High	S	R	M	1, 2, 3
d. Pressurizer Pressure - Low	S	R	M	1, 2, 3
e. Automatic Actuation Logic	N.A.	N.A.	M(1)	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
6. CONTAINMENT SUMP RECIRCULATION (SRAS)				
a. Manual SRAS (Trip Buttons)	N.A.	N.A.	R	N.A.
b. Refueling Water Storage Tank - Low	S	R	M	1, 2, 3
c. Automatic Actuation Logic	N.A.	N.A.	M(1)	1, 2, 3
7. CONTAINMENT PURGE VALVES ISOLATION				
a. Containment Radiation - High				
Gaseous Monitor	S	R	M	ALL MODES
Particulate Monitor	S	R	M	ALL MODES
8. LOSS OF POWER				
a. 4.16 kv Emergency Bus Undervoltage (Undervoltage relays) - level one	S	R	M	1, 2, 3
b. 4.16 kv Emergency Bus Undervoltage (Undervoltage relays) - level two	S	R	M	1, 2, 3
9. AUXILIARY FEEDWATER				
a. Manual	N.A.	N.A.	R	N.A.
b. Steam Generator Level - Low	S	R	M	1, 2, 3
c. Automatic Actuation Logic	N.A.	N.A.	M	1, 2, 3

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. AREA MONITORS					
a. Spent Fuel Storage Criticality Monitor and Ventilation System Isolation	2	*	100 mR/hr	10^{-1} - 10^{+4} mR/hr	13 and 15
b. Control Room Isolation	1	ALL MODES	2 mR/hr	10^{-1} - 10^{4} mR/hr	16
c. Containment High Range	1	1, 2, 3, & 4	100 R/hr	10^{0} - 10^{8} R/hr	17
d. Noble Gas Effluent Monitor (high range) (Unit 2 stack)	1	1, 2, 3, & 4	2×10^{-1} uci/cc	10^{-3} - 10^{5} uci/cc	17
2. PROCESS MONITORS					
a. Containment Atmosphere-Particulate	1	ALL MODES**	the value determined in accordance with Specification 4.3.2.1.4.	10 - 10^{+6} cpm	14 and (a)
b. Containment Atmosphere-Gaseous	1	ALL MODES**	the value determined in accordance with Specification 4.3.2.1.4.	10 - 10^{+6} cpm	14 and (a)

*With fuel in storage building.
**These radiation monitors are not required to be operable during Type "A" Integrated Leak Rate Testing.

TABLE 3.3-6 (Continued)

TABLE NOTATION

(a) During MODE 6, also comply with the ACTION requirements of Specification 3.9.9, as applicable.

ACTION 13 - With the number of area monitors OPERABLE less than required by the MINIMUM CHANNELS OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.

ACTION 14 - With the number of process monitors OPERABLE less than required by the MINIMUM CHANNELS OPERABLE requirement either (a) obtain and analyze grab samples of the monitored parameter at least once per 24 hours, or (b) use a Constant Air Monitor to monitor the parameter.

ACTION 15 - With the number of area monitors OPERABLE less than required by the MINIMUM CHANNELS OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.13.

ACTION 16 - With the number of OPERABLE channels less than required by the MINIMUM CHANNELS OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.

ACTION 17 - With the number of OPERABLE channels less than required by the MINIMUM CHANNELS OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:

1) either restore the inoperable channel(s) to OPERABLE status within 7 days of the discovery or

2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following discovery outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
1. AREA MONITORS				
a. Spent Fuel Storage Criticality Monitor and Ventilation System Isolation	S	R	M	*
b. Control Room Isolation	S	R	M	ALL MODES
c. Containment High Range	S	R**	M	1, 2, 3, & 4
d. Noble Gas Effluent Monitor (high range) (Unit 2 Stack)	S	R	M	1, 2, 3, & 4
2. PROCESS MONITORS				
a. Containment Atmosphere-Particulate	S	R	M	ALL MODES
b. Containment Atmosphere-Gaseous	S	R	M	ALL MODES

*With fuel in storage building

**Calibration of the sensor with a radioactive source need only be performed on the lowest range. Higher ranges may be calibrated electronically.

INSTRUMENTATION

INCORE DETECTORS

LIMITING CONDITION FOR OPERATION

3.3.3.2 The incore detection system shall be OPERABLE with at least one OPERABLE detector segment in each core quadrant on each of the four axial elevations containing incore detectors and as further specified below:

a. For monitoring the AZIMUTHAL POWER TILT:

At least two quadrant symmetric incore detector segment groups at each of the four axial elevations containing incore detectors in the outer 184 fuel assemblies with sufficient OPERABLE detector segments in these detector groups to compute at least two AZIMUTHAL POWER TILT values at each of the four axial elevations containing incore detectors.

b. For recalibration of the excore neutron flux detection system:

1. At least 75% of all incore detector segments,

2. A minimum of 9 OPERABLE incore detector segments at each detector segment level, and

3. A minimum of 2 OPERABLE detector segments in the inner 109 fuel assemblies and 2 OPERABLE segments in the outer 108 fuel assemblies at each segment level.

c. For monitoring the UNRODDED PLANAR RADIAL PEAKING FACTOR, the UNRODDED INTEGRATED RADIAL PEAKING FACTOR, or the linear heat rate:

1. At least 75% of all incore detector locations,

2. A minimum of 9 OPERABLE incore detector segments at each detector segment level, and

3. A minimum of 2 OPERABLE detector segments in the inner 109 fuel assemblies and 2 OPERABLE segments in the outer 108 fuel assemblies at each segment level.

An OPERABLE incore detector segment shall consist of an OPERABLE rhodium detector constituting one of the segments in a fixed detector string.

An OPERABLE incore detection location shall consist of a string in which at least three of the four incore detector segments are OPERABLE.

TABLE 3.3-11

ACCIDENT MONITORING INSTRUMENTATION

Instrument		Total No. of Channels	Minimum Channels Operable	Action
1.	Pressurizer Water Level	2	1	1
2.	Auxiliary Feedwater Flow Rate	2/S. G.	1/S.G.	1
3.	RCS Subcooled/Superheat Monitor	2	1	2
4.	PORV Position Indicator Acoustic Monitor	1/valve	1/valve	3
5.	PORV Block Valve Position Indicator	1/valve	1/valve	3
6.	Safety Valve Position Indicator Acoustic Monitor	1/valve	1/valve	3
7.	Containment Pressure (Wide Range)	2	1	4
8.	Containment Water Level (Narrow Range)	1	1	7##
9.	Containment Water Level (Wide Range)	2	1	4
10.	Core Exit Thermocouples	4 CETs/core quadrant	2 CETs in any of 2 core quadrants	5
11.	Main Steam Line Radiation Monitor	3	3	6

##Refer to ACTION statement in Technical Specification 3.4.6.1.

TABLE 3.3-11 (Continued)

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels less than the MINIMUM CHANNELS OPERABLE requirements of Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 30 days or be in HOT STANDBY within the next 12 hours.

ACTION 2 - With the number of channels OPERABLE less than the MINIMUM CHANNELS OPERABLE, determine the subcooling margin once per 12 hours.

ACTION 3 - With any individual valve position indicator inoperable, obtain quench tank temperature, level and pressure information, and monitor discharge pipe temperature once per shift to determine valve position. This action is not required if the PORV block valve is closed with power removed in accordance with Specification 3.4.3.a or 3.4.3.b.

ACTION 4 - a. With the number of OPERABLE accident monitoring instrumentation channels less than the total number of channels shown in Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 7 days, or submit a special report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction, the plans for restoring the channel(s) to OPERABLE status, and any alternate methods in affect for estimating the applicable parameter during the interim.

- b. With the number of OPERABLE accident monitoring instrumentation channels less than the MINIMUM CHANNELS OPERABLE requirements of Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 48 hours, or submit a special report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction, the plans for restoring the channel(s) to OPERABLE status, and any alternate methods in affect for estimating the applicable parameter during the interim.

TABLE 3.3-11 (Continued)

ACTION STATEMENTS

ACTION 5 - With the number of OPERABLE accident monitoring instrumentation channels less than the MINIMUM CHANNELS OPERABLE requirements of Table 3.3-11, restore the inoperable channel(s) to OPERABLE status within 48 hours, or be in at least HOT SHUTDOWN within the next 12 hours.

ACTION 6 - With any channel of radiation monitoring instrumentation inoperable, portable hand-held radiation detection equipment will be used to assess radiation releases from atmospheric dump valves and steam generator safeties subsequent to a steam generator tube rupture.

ACTION 7 - Restore the inoperable system to OPERABLE status within 7 days or be in COLD SHUTDOWN within the next 36 hours. (See the ACTION statement in Technical Specification 3.4.6.1.)

TABLE 4.3-7

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Pressurizer Water Level	M	R
2.	Auxiliary Feedwater Flow Rate	M	R
3.	Reactor Coolant System Subcooled/Superheat Monitor	M	R
4.	PORV Position Indicator (Acoustic Monitor)	M	R
5.	PORV Block Valve Position Indicator	N.A.	R
6.	Safety Valve Position Indicator (Acoustic Monitor)	M	R
7.	Containment Pressure	M	R
8.	Containment Water Level (Narrow Range)	M	R
9.	Containment Water Level (Wide Range)	M	R
10.	Core Exit Thermocouples	M	R*
11.	Main Steam Line Radiation Monitor	M	R

*Electronic calibration from the ICC cabinets only.

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.9 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with applicable alarm/trip setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The setpoints shall be determined in accordance with methods and parameters as described in the ODCM.

APPLICABILITY: As shown in Table 3.3-12.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel inoperable, or change the setpoint so it is acceptably conservative.

b. With the number of channels less than the minimum channels operable requirement, take the ACTION shown in Table 3.3-12. Exert best efforts to restore the inoperable monitor to OPERABLE status within 30 days and, if unsuccessful, explain in the next Semiannual Effluent Report why the inoperability was not corrected in a timely manner. Releases need not be terminated after 30 days provided the specified actions are continued.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION, and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3-12.

REACTOR COOLANT SYSTEM

REACTOR COOLANT SYSTEM VENTS

LIMITING CONDITION FOR OPERATION

3.4.11 At least one reactor coolant system vent path consisting of at least two valves in series capable of being powered from emergency buses shall be OPERABLE and closed at each of the following locations:

a. Reactor Vessel head

b. Pressurizer stream space

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With the Pressurizer vent path inoperable, STARTUP and/or POWER OPERATION may continue provided that i) the inoperable vent path is maintained closed with power removed from the valve actuator of all the valves in the inoperable vent path and ii) one power operated relief valve (PORV) and its associated block valve is OPERABLE; otherwise, restore either the inoperable vent path or one PORV and its associated block valve to OPERABLE status within 30 days, or submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the path to OPERABLE status.

b. With the Reactor Vessel Head vent path inoperable, STARTUP and/or POWER OPERATION may continue provided that the inoperable vent path is maintained closed with power removed from the valve actuator of all the valves in the inoperable vent path; restore the Reactor Vessel Head vent path to OPERABLE status within 30 days or submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the path to OPERABLE status.

c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.11 Each reactor coolant system vent path shall be demonstrated OPERABLE at least once per 18 months by:

1. Verifying all manual isolation valves in each vent path are locked in the open position.

2. Cycling each valve in the vent path through at least once complete cycle of full travel from the control room during COLD SHUTDOWN or REFUELING.

3. Verifying flow through the reactor coolant vent system vent paths during venting during COLD SHUTDOWN or REFUELING.

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CONTAINMENT VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.3.2 The containment purge supply and exhaust isolation valves shall be locked closed and electrically deactivated.

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

ACTION:

With one containment purge supply and/or one exhaust isolation valve open and/or electrically activated, close the open valve(s) and electrically deactivate within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.7 The containment purge supply and exhaust isolation valves shall be determined locked closed and electrically deactivated prior to each reactor startup.

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN MONITORS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen monitors shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

a. With one hydrogen monitor inoperable, restore the inoperable monitor to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

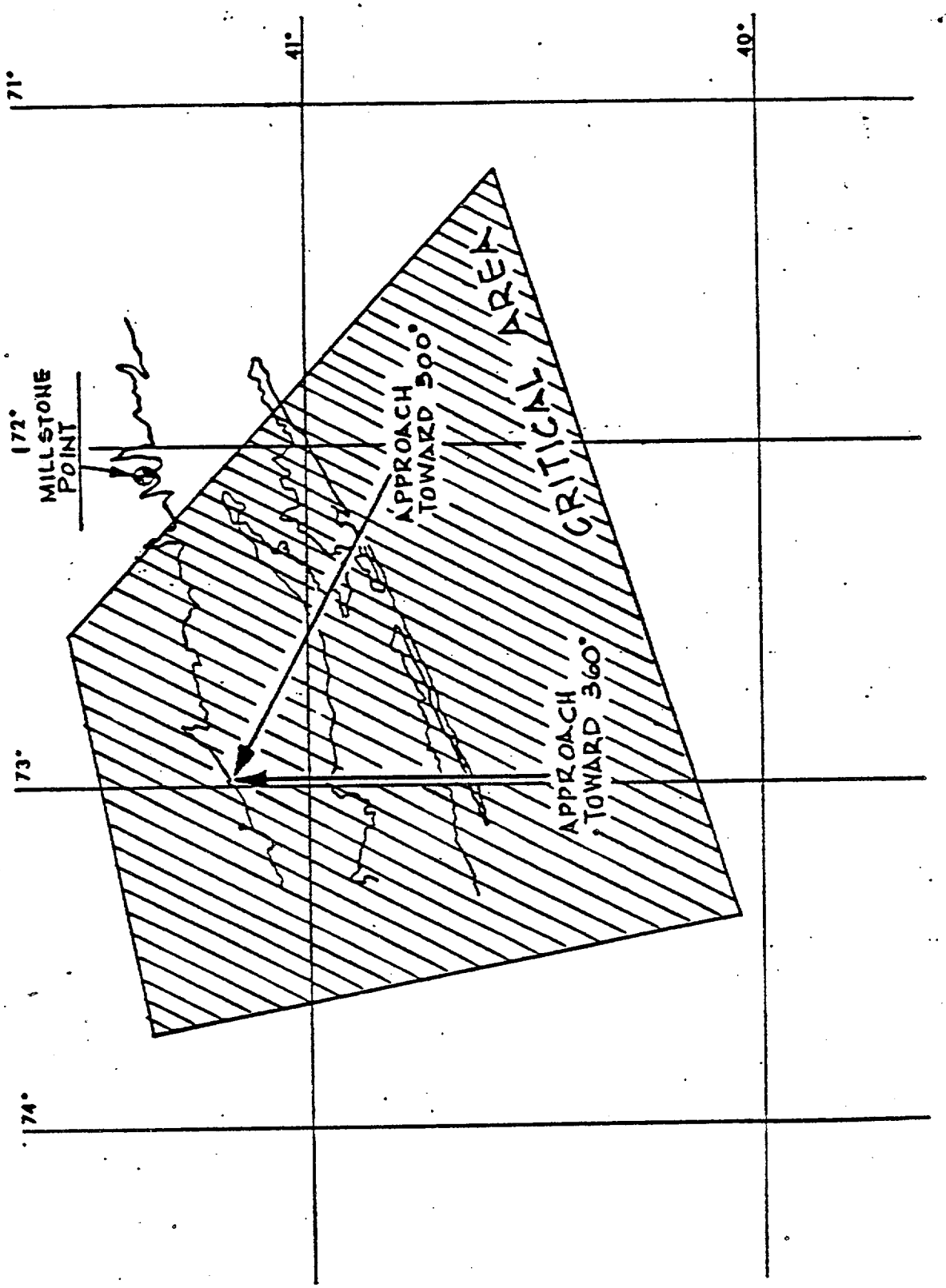
b. With both hydrogen monitors inoperable, restore at least one monitor to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen monitor shall be demonstrated OPERABLE by the performance of a CHANNEL FUNCTION TEST at least once per 31 days, and at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using sample gases containing:

a. One volume percent hydrogen, balance nitrogen.

b. Four volume percent hydrogen, balance nitrogen.



Critical Area
Figure 3.7-1

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6.1 Two independent control room emergency ventilation systems shall be OPERABLE.

APPLICABILITY: ALL MODES

ACTION:

MODES 1, 2, 3, and 4:

With one Control Room Emergency Air Clean-Up System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

a. With one Control Room Emergency Air Clean-Up System inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Emergency Air Clean-Up System in the recirculation mode.

b. With both Control Room Emergency Air Clean-Up Systems inoperable, or with the OPERABLE Control Room Emergency Air Clean-Up System required to be in the recirculation mode by ACTION (a.) not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.7.6.1 Each control room emergency ventilation system shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is $\leq 100^{\circ}F$.

b. At least once per 31 days on a STAGGERED TEST BASIS by initiating from the control room, flow through the HEPA filters and charcoal absorber train and verifying that the system operates for at least 15 minutes.

c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

3/4.4.11 Reactor Coolant System Vents

Reactor Coolant System Vents are provided to exhaust noncondensible gases and/or steam from the primary system that could inhibit natural circulation core cooling. The OPERABILITY of at least one reactor coolant system vent path from the reactor vessel head and the pressurizer steam space ensures the capability exists to perform this function.

The valve redundancy of the reactor coolant system vent paths serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply or control system does not prevent isolation of the vent path.

MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Director, Office of Resource Management, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, with a copy to the Regional Administrator, Region I, U. S. Nuclear Regulatory Commission, no later than the 15th of each month following the calendar month covered by the report.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Regional Administrator, Region I, U.S. Nuclear Regulatory Commission, within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

a. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.

b. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.

c. Safety Class 1 Inservice Inspection Program Review, Specification 4.4.10.1.

d. ECCS Actuation, Specifications 3.5.2 and 3.5.3.

e. Fire Detection Instrumentation, Specifications 3.3.3.7.

f. Fire Suppression Systems, Specifications 3.7.9.1 and 3.7.9.2.

g. RCS Overpressure Mitigation, Specification 3.4.9.3

h. Radiological Effluent Reports required by Specifications 3.11.1.2, 3.11.2.2, 3.11.2.3, and 3.11.4.

i. Degradation of Containment Structure, Specification 4.6.1.6.4.

j. Steam Generation Tube Inspection, Specification 4.4.5.1.5.

k. Accident Monitoring Instrumentation, Specification 3.3.3.8.

l. Radiation Monitoring Instrumentation, Specification 3.3.3.1.

m. Reactor Coolant System Vents, Specification 3.4.11.

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

a. Records and logs of facility operation covering time interval at each power level.

b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.

c. All REPORTABLE EVENTS.

d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.

e. Records of reactor tests and experiments.

f. Records of changes made to operating procedures.

g. Records of radioactive shipments.

h. Records of sealed source leak tests and results.

i. Records of annual physical inventory of all sealed source material of record.

6.10.2 The following records shall be retained for the duration of the facility operating license:

a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.

b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.

c. Records of facility radiation and contamination surveys.

d. Records of radiation exposure for all individuals entering radiation control areas.

e. Records of gaseous and liquid radioactive material released to the environs.

f. Records of transient or operational cycles for those facility components designed for a limited number of transients or cycles.

6.15 RADIOLOGICAL EFFLUENT MONITORING AND OFFSITE DOSE CALCULATION MANUAL (REMODCM)

Section I, Radiological Effluents Monitoring Manual, shall outline the sampling and analysis programs to determine the concentration of radioactive materials released offsite as well as dose commitments to individuals in those exposure pathways and for those radionuclides released as a result of station operation. It shall also specify operating guidelines for radioactive waste treatment systems and report content.

Changes to Section I shall be submitted to the Commission for approval prior to implementation.

Section II, the Offsite Dose Calculation Manual (ODCM), shall describe the methodology and parameters to be used in the calculation of offsite doses due to radioactive gaseous and liquid effluents and in the calculations of gaseous and liquid effluent monitoring instrumentation alarm/trip setpoints consistent with the applicable LCOs contained in these technical specifications. Changes to Section II need not be submitted to the Commission for approval prior to implementation, but shall be included in the next Semi-Annual Radioactive Effluent Release Report.

6.16 RADIOACTIVE WASTE TREATMENT

Procedures for liquid and gaseous radioactive effluent discharges from the unit shall be prepared, approved, maintained and adhered to for all operations involving effsite releases of radioactive effluents. These procedures shall specify the use of appropriate waste treatment systems utilizing the guidance provided in the REMODCM.

The Solid Radioactive Waste Treatment system shall be operated in accordance with the Process Control Program to process wet radioactive wastes to meet shipping and burial ground requirements.

6.17 PASS/ Sampling and Analysis of Plant Effluents

A program shall be established, implemented and maintained which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

(i) Training of personnel,
(ii) Procedures for sampling and analysis,
(iii) Provisions for maintenance of sampling & analysis

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 120 TO DPR-65

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2

DOCKET NO. 50-336

1.0 INTRODUCTION

By applications for license amendments dated October 14, 1986 and July 21, 1987, Northeast Nuclear Energy Company, et al. (the licensee), requested changes to the Technical Specifications (TS) for Millstone Unit 2 in response to the NRC's Generic Letter (GL) 83-37, "NUREG-0737 Technical Specifications," dated November 1, 1983. The purpose of GL 83-37 was to provide licensees of pressurized water reactors with guidance concerning changes to their TS that would satisfy various requirements of NUREG-0737. These changes involve Limiting Conditions for Operations (LCO) and Surveillance Requirements (SR). The July 21, 1987 application also requested changes to the TS as follows: (1) LCOs and SR for the main steam radiation monitors which would be added to existing TS 3/4.3.3.8, "Accident Monitoring Instrumentation," and (2) an instrument identified in TS Table 3.3-11 as the "Safety Valve Position Indicator Acoustic Flow Monitor" would now be identified as "Safety Valve Position Indicator Acoustic Monitor."

The GL 83-37 TS associated with the Reactor Vessel Coolant Level Monitor will be addressed in future correspondence.

DISCUSSION AND EVALUATION

The licensee's applications dated October 14, 1986 and July 21, 1987, responded to each case in GL 83-37 where the NRC staff identified the need for additional TS associated with TMI Action Items. Although the licensee's proposed TS, in some cases deviated substantially from the model TS presented in GL 83-37, the proposed TS were found to be acceptable as described in the following sections.

HIGH POINT VENTS (HPV) II.B.1

The licensee's proposed TS 3.4.11 deviates substantially from the guidance in GL 83-37 in that, in the event of an inoperable HPV, a special report would be submitted in lieu of a plant shutdown as suggested by the GL 83-37 TS. The licensee's proposed TS are acceptable in that the major failure modes of the HPV valves, leakage or loss of vital 120V AC power, are already addressed in the TS and require a shutdown as follows:

- Loss of Vital 120V AC - TS 3.8.2.1 would require a plant shutdown within 8 hours should Vital 120V AC be unavailable.

- Leakage - TS 3.4.6.2.d requires a plant shutdown within 36 hours in the event that Reactor Coolant System (RCS) leakage (identified) exceeds 10 gpm.

With regard to the statement in proposed TS 3.4.11, "The provisions of Specification 3.0.4 are not applicable," this statement is consistent with NRC staff policy regarding such TS. On June 4, 1987, we issued Generic Letter 87-09 which contained clarifications concerning the use of TS 3.0.4. As indicated in GL 87-09, TS 3.0.4 (which would prevent reactor start-up with inoperable equipment) unduly restricts reactor operation when conformance to the LCO Action Statement provides an acceptable level of safety. Since the HPV are not required for safe startup of the reactor, it is appropriate that TS 3.0.4 not be applicable to TS 3.4.11.

The proposed SR for the HPV, contained in draft TS 4.4.11 conforms to the guidance in GL 83-37 and are acceptable.

POST-ACCIDENT SAMPLING SYSTEM (PASS) II.B.3

The licensee's proposed PASS TS substantially complies with GL 83-37 and are acceptable.

AUXILIARY FEEDWATER (AFW) SYSTEM II.E.1.1

The licensee's proposed AFW TS (actually, existing TS 3/4 7-4) deviates from the GL 83-37 guidance in three areas:

- Limiting Condition for Operations (LCO) 3.7.12 does not describe the AFW pumps and flow paths as "independent". The AFW pumps are connected at both suction and discharge sides and thus, are not independent. The NRC staff does not require the AFW trains to be fully independent but the TS should correctly reflect system design. Accordingly, the existing TS is acceptable.

- The existing TS 4.7.1.2.2 does not require that the AFW pumps achieve a specified flow rate when tested in the recirculation mode. A specified flow rate would: (1) establish a performance level to detect pump degradation, and (2) assure that the recirculation flow path remains open. Lack of recirculation could damage the AFW pumps following pump start and prior to opening the discharge valves. The lack of a specified recirculation flow rate is acceptable since the AFW pumps are incorporated in the Inservice Test (IST) program. The pumps are tested quarterly and any significant decrease in pump performance would be corrected. In addition, the recirculation line is unlikely to be blocked. The line contains only globe and check valves (the globe valves being locked open); thus, recirculation would be assured. Accordingly, the above deviation is acceptable.

- The existing TS 4.7.1.2.a.6 requires that remotely operated valves be checked for "correct position" rather than checked to be "fully open" as required in GL 83-37. The existing TS is acceptable since:

(1) the flow modulating valves ?-FW-43A and B might not actually be fully open, and (?) valve position can be controlled by plant procedures.

Based upon the above, although the existing AFW TS deviate from the model TS in GL83-37, as described above, the requirement of NUREG-0737 for reliable operation of AFW is assured by the existing TS.

The licensee has also proposed a change to TS Table 4.3-? to provide a monthly channel functional test for the AFW automatic actuation logic. This test frequency is consistent with the frequency specified for other safety grade actuation logics and is acceptable.

In conclusion, the AFW existing and draft TS substantially conforms to the LCO and SR guidance of GL 83-37 and are acceptable.

NOBLE GAS EFFLUENT MONITORS (NGEM)-II.F.1.1

The licensee proposes to incorporate TS for the NGEM in TS Table 3.3-6, "Radiation Monitoring Instrumentation." The proposed TS substantially conforms to the LCO and SR guidance in GL 83-37 and are acceptable.

SAMPLING AND ANALYSIS OF PLANT EFFLUENTS-II.F.1.?

The proposed TS for sampling and analysis of plant effluent comply substantially with the guidance of GL 83-37 and are acceptable.

CONTAINMENT HIGH-RANGE RADIATION MONITOR-II.F.1.3

The proposed TS for the containment high-range radiation monitor are substantially in conformance with the guidance of GL 83-37 with regard to LCO and SR. One area of deviation is that the draft TS requires only one radiation monitoring channel to be operable while the GL 83-37 TS requires two channels to be operable. This deviation is judged to be minor and the proposed TS is acceptable.

CONTAINMENT PRESSURE MONITOR-II.F.1.4

The draft TS for the containment pressure monitor are substantially in conformance with the guidance of GL 83-37 with regard to LCO and SR. The one area of deviation is the remedial action to be taken for equipment unavailability; GL 83-37 requires a shutdown while the licensee has proposed that a special report be prepared and submitted to the NRC. Although the proposed TS deviate from the model TS of GL 83-37, we find the proposed TS to be within the bounds of those TS previously accepted by the NRC staff; therefore, the proposed TS is acceptable.

CONTAINMENT WATER LEVEL MONITOR-II.F.1.5

The licensee has proposed draft TS for wide and narrow range containment water level. The narrow range containment water level monitor is currently in the TS as a part of the RCS leak detection requirements of TS 3/4.4.6.1, "Leakage Detection Systems." The licensee's draft TS incorporates the LCO in TS Table 3.3-11 with a cross reference to TS 3/4.4.6.1 for consistency. The draft LCO and SR for the narrow range containment water level monitor are substantially in conformance with the guidance of GL 83-37 and are acceptable.

The draft TS for the wide range containment water level monitor, while in substantial conformance with the LCO and SR of GL 83-37, contains a deviation. While GL 83-37 requires a plant shutdown in the event of equipment unavailability, the licensee has proposed that a special report be prepared and submitted. Although the proposed TS deviate from the model TS of GL 83-37, we find the proposed TS to be within the bounds of those TS previously accepted by the NRC staff; therefore, the proposed TS is acceptable.

CORE EXIT THERMOCOUPLES (CETS)-II.F.2

The draft LCO and SR for the CETs are in substantial conformance with GL 83-37. One area of deviation involves the specification of the minimum number of channels which must be operable. While GL 83-37 requires a minimum of two CETs per core quadrant, the licensee has proposed a minimum of two CETs in each of two core quadrants. The CET instrumentation, other than the sensors, are located in two instrument cabinets. Should one cabinet become unavailable (e.g., loss of power) a minimum CET capability of two CETs in each of two core quadrants would result. A loss of power would require a shutdown within 8 hours per TS 3.8.2 since the CETs are powered via a vital AC bus. For failures of a less widespread nature, a shutdown within 7 days would be required by the draft TS which is in accordance with the guidance of GL 83-37. We conclude that the draft TS for the CETs are acceptable.

SUBCOOLING MARGIN MONITOR (SMM)-II.F.2

The draft LCO and SR for the SMM are substantially in conformance with the guidance of GL 83-37. An area of deviation involves the remedial action to be taken when equipment is unavailable. The GL 83-37 TS requires a plant shutdown for an inoperable SMM while the licensee's draft TS would require the determination of the subcooling margin at least once per twelve (12) hours. Although the proposed TS deviate from the model TS of GL 83-37, we find the proposed TS to be within the bounds of those TS previously accepted by the NRC staff; therefore, the proposed TS is acceptable.

CONTAINMENT HYDROGEN MONITOR-II.F.1.6

The draft LCO and SR for the containment hydrogen monitor substantially comply with the guidance of GL 83-37. One area of deviation involves the lack of a proposed periodic channel check. The TS defines a channel check as a "...qualitative assessment of channel behavior during operation by observation." Since the containment does not have hydrogen present, under normal conditions, a channel check is meaningless. Accordingly, the licensee's deviation is acceptable and the draft TS are acceptable.

CONTROL ROOM HABITABILITY-II.D.3.4

The TS of GL 83-37 address control room habitability with regard to chlorine monitoring and the control room emergency ventilation system.

The staff has already accepted the licensee's TS associated with chlorine monitors issued as License Amendment No. 100 on June 19, 1985. No additional changes to the TS are judged necessary.

With regard to the control room emergency ventilation system, the proposed TS has several deviations when compared with the guidance in GL 83-37:

- The proposed TS provide for a maximum control room temperature of 100°F as compared to the GL 83-37 limit of 80°F. The present Millstone Unit 2 TS limit is 120°F. The TS Bases for the existing maximum control room temperature states, "The OPERABILITY of the control room emergency ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system, and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions."

  The proposed lowering of the maximum control room temperature increases the temperature margin for equipment operability and control room habitability and is acceptable.

- The GL 83-37 guidance requires the emergency ventilation system to be operated periodically for 10 continuous hours with heaters operating. The licensee has not proposed a change to the existing TS requirement to operate the ventilation system, periodically, for 15 minutes.

  Operation of the ventilation system with the heaters operating, per GL 83-37 is required in order to minimize humidity in the system which would degrade the charcoal filter efficiency. Since the Millstone Unit 2 ventilation system does not utilize heaters for the charcoal and HEPA filters, the existing TS are adequate.

- The GL 83-37 TS requires surveillance on total ventilation system bypass flow including leakage through the system diverting valves.

  The licensee has not proposed this requirement in their TS since the Millstone Unit 2 does not employ diverter valves in the control room ventilation system. There are also no bypass paths associated with the prefilter/HEPA/charcoal banks. We find this deviation to be acceptable.

- The GL 83-37 TS requires that a periodic surveillance be undertaken to demonstrate that the control room emergency ventilation system will maintain a positive pressure in the control room of 1/8" W.G. The licensee has not proposed this change to the TS since the maintenance of a meaningfully positive pressure in the control room is beyond the design capability of the control room and its emergency ventilation system. We find this deviation acceptable.

- The GL 83-37 TS requires a periodic test to verify that the emergency ventilation system heaters dissipate their KW design rating. As indicated previously, the Millstone Unit 2 emergency ventilation system does not utilize heaters. Accordingly, this deviation is acceptable.

In conclusion, the draft and existing TS substantially meet the requirements of GL 83-37 and are acceptable.

In addition to the proposed changes to the TS associated with GL 83-37, the licensee has proposed to add LCOs and SR associated with the Main Steam Line Radiation Monitor to TS Tables 3.3-11 and 4.3-7, respectively. The proposed LCO requires that three monitoring channels be operable and also requires remedial action to be taken (use of hand-held monitors) should any of these channels become inoperable. The SR provides for monthly channel checks and calibration during refueling outages. The proposed LCO and SR are similar to requirements provided for similar accident monitoring instrumentation and are acceptable.

The final change to the TS considered herein involves an existing entry in TS Table 3.3-11 which is described as "Safety Valve Position Indicator Acoustic Flow Monitor." The licensee has proposed deletion of the word "Flow" from the instrument description. The proposed change to the TS would provide consistency with the corresponding entry in TS Table 4.3-7, does not otherwise change the requirements in the TS, and is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The amendment also relates to changes in recordkeeping, reporting, or administrative procedures or requirements. The staff has determined that the amendment involves 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 published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR §51.22(c)(9) and (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.

4.0 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: September 28, 1987

Principal Contributor:
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