

May 20, 1992

Docket No. 50-336

Mr. John F. Opeka
Executive Vice President, Nuclear
Connecticut Yankee Atomic Power Company
Northeast Nuclear Energy Company
Post Office Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Opeka:

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SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M82743)

The Commission has issued the enclosed Amendment No. 157 to Facility Operating License No. DPR-65 for Millstone Nuclear Power Station, Unit No. 2, in response to your application dated January 31, 1992.

The amendment changes references to the spent fuel pool area radiation monitors in the Technical Specifications to remove any inference that they perform a criticality monitoring function, thereby making the Technical Specifications consistent with the NRC Exemption issued October 18, 1991.

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

Sincerely,

/s/

Guy S. Vissing, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 157 to DPR-65
2. Safety Evaluation

cc w/enclosures:
See next page

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Millstone Nuclear Power Station
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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.157
License No. DPR-65

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Northeast Nuclear Energy Company, et al. (the licensee), dated January 31, 1992, complies 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. 157, 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


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: May 20, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 157

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.

Remove

3/4 3-27
3/4 3-29
B 3/4 3-2

Insert

3/4 3-27
3/4 3-29
B 3/4 3-2

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Spent Fuel Storage 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.

MILLSTONE - UNIT 2
0051

3/4 3-27

Amendment No. 49, 100, 101,
120, 157

TABLE 4.3-3

RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. AREA MONITORS				
a. Spent Fuel Storage 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

BASES

3/4.3.1 AND 3/4.3.2 PROTECTIVE AND ENGINEERED SAFETY FEATURES (ESF) INSTRUMENTATION (Continued)

The maximum allowable trip value for these monitors corresponds to calculated concentrations at the site boundary which would not exceed the concentrations listed in 10 CFR Part 20, Appendix B, Table II. Exposure for a year to the concentrations in 10 CFR Part 20, Appendix B, Table corresponds to a total body dose to an individual of 500 mrem which is well below the guidelines of 10 CFR Part 100 for an individual at any point on the exclusion area boundary for two hours.

Determination of the monitor's trip value in counts per minute, which is the actual instrument response, involves several factors including: 1) the atmospheric dispersion (x/Q), 2) isotopic composition of the sample, 3) sample flow rate, 4) sample collection efficiency, 5) counting efficiency, and 6) the background radiation level at the detector. The x/Q of $5.8 \times 10^{-6} \text{ sec/m}^3$ is the highest annual average x/Q estimated for the site boundary (0.48 miles in the NE sector) for vent releases from the containment and $7.5 \times 10^{-8} \text{ sec/m}^3$ is the highest annual average x/Q estimated for an off-site location (3 miles in the NNE sector) for releases from the Unit I stack. This calculation also assumes that the isotopic composition is xenon-133 for gaseous radioactivity and cesium-137 for particulate radioactivity (Half Lives greater than 8 days). The upper limit of $5 \times 10^5 \text{ cpm}$ is approximately 90 percent of full instrument scale.

3/4.3.3 MONITORING INSTRUMENTATION

3/4.3.3.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring channels ensures that 1) the radiation levels are continually measured in the areas served by the individual channels and 2) the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded.

The spent fuel storage area monitors provide a signal to direct the ventilation exhaust from the spent fuel storage area through a filter train when the dose rate exceeds the setpoint. The filter train is provided to reduce the particulate and iodine radioactivity released to the atmosphere. Should an accident involving spent fuel occur, the 100 mR/hr actuation setpoint would be sufficient to limit any consequences at the exclusion area boundary to those evaluated in the NRC Safety Evaluation, Section 15 (May 1974).



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 157

TO FACILITY OPERATING LICENSE NO. DPR-65

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 2

DOCKET NO. 50-336

1.0 INTRODUCTION

By letter dated January 31, 1992, the Northeast Nuclear Energy Company (the licensee), submitted a request for an amendment to the Millstone Nuclear Power Station, Unit No. 2 Technical Specifications (TS). The requested amendment would change references to the spent fuel pool area radiation monitors in the Technical Specifications to remove any inference that they perform a criticality monitoring function, thereby making the Technical Specifications consistent with the NRC Exemption issued October 18, 1991.

2.0 EVALUATION

On October 18, 1991, the staff issued an Exemption from 10 CFR 70.24(a) for Millstone Unit 2. The Exemption removed a requirement to have monitoring systems which will energize clearly audible alarms if accidental criticality occurs in the reactor vessel and fuel handling building.

The spent fuel pool monitors serve several functions. The Exemption granted October 18, 1991, thoroughly discussed the criticality monitoring functions which were removed by the Exemption and are no longer required.

The public safety and Technical Specification function of these monitors is to provide an indication of a possible release of high airborne activity into the building such that emergency ventilation systems can be activated to minimize any offsite doses. The other function is for worker protection. The monitor will provide a warning to those in the area upon measurement of high dose rates. This is similar to the purpose of all other area radiation monitors.

There are a number of possible causes for potentially high dose rates including raising highly radioactive components too close to the pool surface, having small fuel fragments inadvertently removed from the pool via hoses or handling tools, or airborne releases due to the rupture of fuel cladding. There is no change in any of the above functions from the proposed change.

The proposed change modifies the description of the fuel pool storage area radiation monitoring instrumentation in Technical Specification Tables 3.3-6 and 4.3-3 by removing "Criticality Monitor" from "a. Spent Fuel Storage Criticality Monitor and Ventilation System Isolation" to simply "a. Spent Fuel Storage Ventilation System Isolation." No change in equipment, setpoints, surveillance requirements, or function is involved, but merely a change in the name by which a certain instrumentation channel is referred to in the Technical Specifications. The old nomenclature, which was appropriate before the October 18, 1991 Exemption was granted, is now misleading. The change removes confusion in nomenclature, and thus enhances safety. Because there are no negative safety impacts from the proposed change, and because the proposed change removes confusion in nomenclature and thus enhances safety, the proposed change is acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (57 FR 9447). Accordingly, the amendment meets 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 amendment.

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

Principal Contributor: Guy S. Vissing

Date: May 20, 1992