

August 22, 1990

Docket No. 50-423

DISTRIBUTION

Mr. Edward J. Mroccka
Senior Vice President
Nuclear Engineering and Operations
Connecticut Yankee Atomic Power Company
Northeast Nuclear Energy Company
Post Office Box 270
Hartford, Connecticut 06141-0270

Docket file SVarga
NRC & L PDRs BBoger
PDI-4 Rdg DHagan
SNorris GHill (4)
DJaffe Wanda Jones
OGC JCalvo
ACRS (10) GPA/PA
JStolz OC/LFMB
EJordan

Dear Mr. Mroccka:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 77160)

The Commission has issued the enclosed Amendment No. 53 to Facility Operating License No. NPF-49 for Millstone Nuclear Power Station, Unit No. 3, in response to your application dated July 20, 1990.

The amendment modifies TS 3/4.6.6.1, "Supplemental Leak Collection and Release System", (SLCRS), to incorporate a revised SLCRS flow rate.

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/

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

Enclosures:

- 1. Amendment No. 53 to NPF-49
- 2. Safety Evaluation

cc w/enclosures:
See next page

OFC	: PDI-4: LA	: PDI-4: PM	: PDI-4: D	: OGC	
NAME	: SMorris	: DJaffe/Bat	: JStolz	: EHOLLER	
DATE	: 8/7/90	: 8/1/90	: 8/7/90	: 8/15/90	

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SUBJECT TO REVISION OF SAFETY EVAL TO REFLECT FINAL DETERMINATION OF NO SIG. HAZARDS CONSIDERATION.

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Mr. E. J. Mrocza
Northeast Nuclear Energy Company

Millstone Nuclear Power Station
Unit No. 3

cc:

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

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

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

D. O. Nordquist
Director of Quality Services
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

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

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

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

S. E. Scace, Nuclear Station Director
Millstone Nuclear Power Station
Northeast Nuclear Energy Company
Post Office Box 128
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

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

M. R. Scully, Executive Director
Connecticut Municipal Electric
Energy Cooperative
30 Stott Avenue
Norwich, Connecticut 06360

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

Mr. Alan Menard, Manager
Technical Services
Massachusetts Municipal Wholesale
Electric Company
Post Office Box 426
Ludlow, Massachusetts 01056

Burlington Electric Department
c/o Robert E. Fletcher, Esq.
271 South Union Street
Burlington, Vermont 05402



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

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 53
License No. NPF-49

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 July 20, 1990, 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.

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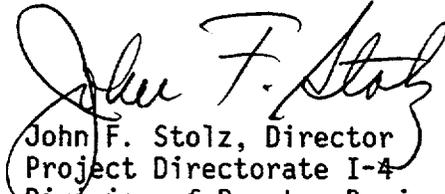
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-49 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 53, 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: August 22, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 53

FACILITY 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.

Remove

3/4 6-38

3/4 6-39

Insert

3/4 6-38

3/4 6-39

CONTAINMENT SYSTEMS

3/4.6.6 SECONDARY CONTAINMENT

SUPPLEMENTARY LEAK COLLECTION AND RELEASE SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.6.1 Two independent Supplementary Leak Collection and Release Systems shall be OPERABLE.

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

ACTION:

With one Supplementary Leak Collection and Release 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.

SURVEILLANCE REQUIREMENTS

4.6.6.1 Each Supplementary Leak Collection and Release System shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying a system flow rate of 7600 cfm to 9800 cfm and that the system operates for at least 10 continuous hours with the heaters operating;
- b. 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:
 - 1) Verifying that the system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978,* and the system flow rate is 7600 cfm to 9800 cfm;
 - 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978,* meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978,* for a methyl iodide penetration of less than 0.175%; and
 - 3) Verifying a system flow rate of 7600 cfm to 9800 cfm during system operation when tested in accordance with ANSI N510-1980.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978,* meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978,* for a methyl iodide penetration of less than 0.175%;
- d. At least once per 18 months by:
 - 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6.25 inches Water Gauge while operating the system at a flow rate of 7600 cfm to 9800 cfm,
 - 2) Verifying that the system starts on a Safety Injection test signal,
 - 3) Verifying that each system produces a negative pressure of greater than or equal to 0.25 inch Water Gauge in the annulus within 50 seconds after a start signal, and
 - 4) Verifying that the heaters dissipate 50 \pm 5 kW when tested in accordance with ANSI N510-1980.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 7600 cfm to 9800 cfm; and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 7600 cfm to 9800 cfm.

*ANSI N510-1980 shall be used in place of ANSI N510-1975 referenced in Regulatory Guide 1.52, Revision 2, March 1978.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 53

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 application for license amendment dated July 20, 1990, Northeast Nuclear Energy Company, et al. (the licensee), requested changes to Millstone Unit 3 Technical Specifications (TS).

The proposed amendment would modify TS 3/4.6.6.1, "Supplemental Leak Collection and Release System," (SLCRS), to incorporate a revised SLCRS flow rate.

DISCUSSION AND EVALUATION

Millstone Unit 3 Technical Specification (TS) 4.6.6.1.a requires that each of two SLCRS demonstrate a flow rate of 9,500 cfm \pm 10% every 31 days on staggered test basis.

On July 16, 1990, the 'B' SLCRS fan failed its monthly performance test (Surveillance 4.6.6.1.a) with 85 percent of 9,500 cfm. The minimum required flow per Surveillance 4.6.6.1.a is 9,500 cfm \pm 10 percent. The 'B' SLCRS train was declared inoperable, and the plant entered a 7-day ACTION statement per the requirements of TS 3.6.6.1. On July 20, 1990, the licensee submitted an application for license amendment and request for temporary waiver concerning the requirements of TS 3/4.6.6.1. The application for license amendment would incorporate a revised SLCRS flow rate, based upon testing completed on July 20, 1990, in TS 4.6.6.1.a., 4.6.6.1.b.1 and 3, 4.6.6.1.d.1, 4.6.6.1.e and 4.6.6.1.f.

Section 6.5.1.2 of the Millstone Unit 3 FSAR indicates that:

The SLCRS system is designed to maintain a 0.25 inches [water gage] wg negative pressure in the containment enclosure building and associated contiguous structures (auxiliary building, ESF building, main steam valve building, and hydrogen recombiner building) during LOCA. This is accomplished by exhausting air from these areas passing it through a charcoal filter assembly before releasing to atmosphere.

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One purpose of the Surveillance Requirements of TS 3/4.6.6.1 is to demonstrate that SLCRS will attain adequate flow to produce the required 0.25 inches wg negative pressure within 60 seconds following a LOCA (50 seconds from a system start signal). The licensee indicated in its July 20, 1990, letter that the required SLCRS flow rate of 9,500 cfm \pm 10% is based upon blower name plate data rather than test requirement's flow rate data. On July 20, 1990, the licensee tested the SLCRS and found that a flow rate of 7,040 scfm would produce a 0.25 inches wg negative pressure in less than 30 seconds. The licensee proposed a SLCRS flow rate of 7,600 cfm to 9,800 cfm to replace the 9,500 cfm \pm 10% requirement of TS 3/4.6.6.1. Based on the SLCRS test, the NRC staff issued a Temporary Waiver of Compliance (TWC) regarding TS 3.6.6.1 on July 23, 1990, to be effective until the proposed license amendment is issued.

The licensee has demonstrated, by testing, that a flow rate of 7,040 scfm will satisfy the design basis of the SLCRS. We conclude that a SLCRS flow rate of 9,500 scfm \pm 10% is excessively conservative. The proposed flow rate range of 7,600 to 9,800 cfm will assure operability of the SLCRS with regard to air flow and is acceptable. Accordingly, the proposed change to TS 3/4.6.6.1 is acceptable.

EXIGENT CIRCUMSTANCES

The Commission's regulations, 10 CFR 50.91, contain provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. An exigency is a case where the staff and licensee need to act promptly, but failure to act promptly does not involve a plant shutdown, derating, or delay in startup. In this case, the need to act quickly was due to entrance into a 7-day action statement which was resolved with issuance of the TWC.

Under such circumstances, the Commission notifies the public in one of two ways: by issuing a Federal Register notice providing an opportunity for hearing and allowing at least two weeks for prior public comments, or by issuing a press release discussing the proposed changes, using the local media. In this case, the Commission used the first approach.

The licensee submitted the request for amendment on July 20, 1990. It was noticed in the Federal Register on August 6, 1990 (55 FR 31917), at which time the staff proposed a no significant hazards consideration determination. There were no public comments in response to the notice published in the Federal Register.

FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards considerations if operation of the facility in accordance with the amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

1. Involve a significant increase in the probability or consequences of an accident previously analyzed.

In the event of a DBA, such as a loss-of-coolant accident (LOCA), activity is released to the containment atmosphere. The SLCRS collects most of the primary containment leakage from the buildings contiguous to the containment, filters it, and releases it to the atmosphere through the Millstone Unit No. 1 stack. The SLCRS is not normally in operation. The SLCRS starts on a safety injection signal and is required by Technical Specification 4.6.6.1.d.3 to be able to draw -0.25-inch wg in the annulus within 50 seconds after a start signal. In the accident analysis for Millstone Unit No. 3 (FSAR Section 15.6.5.4), it is assumed that the SLCRS will be able to achieve -0.25-inch wg pressure in the annulus within 60 seconds. Until this time, it is assumed that all of the containment leakage is an unfiltered ground level release. After the negative pressure is attained, only a small fraction of containment leakage (e.g., secondary containment bypass leakage) is not assumed to be processed by the SLCRS. With the reduced flow rate, the SLCRS will still be capable of meeting the existing Technical Specification surveillance requirements. Therefore, the proposed change will have no impact on the ability of the SLCRS to meet the performance requirements as assumed in the design basis analysis.

The proposed revised flow rate will not change the assumptions of the radiological consequence analysis concerning the filter efficiencies. Therefore, the proposed change will not adversely affect the calculated off-site doses. In addition, the proposed change does not have an impact on the probability of an accident.

2. Create the possibility of a new or different kind of accident from that previously analyzed.

The proposed change will have no impact on plant response. No physical design changes are proposed. Only the minimum flow rate specified in the surveillance requirement is affected. As discussed above, even at the lower flow rate, the SLCRS will perform as assumed in the design basis analysis. There are no new failure modes introduced.

3. Involve a significant reduction in a margin of safety.

The proposed change has no direct impact on any protective boundaries. As discussed above, the proposed change will not affect the ability of the SLCRS to perform its safety function as assumed in the design basis analysis. The proposed change does not affect the consequences of any accident previously analyzed. Therefore, there is no significant reduction in the margin of safety.

Based on the above, the Commission has made a final determination that the proposed amendment involves no significant hazards consideration.

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 and changes surveillance requirements. We have 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 made a final no significant hazards consideration finding with respect to this amendment. 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.

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 (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.

Dated: August 22, 1990

Principal Contributor:

D. H. Jaffe