

Mr. Martin L. Bowling, Jr  
 Recovery Officer - Millstone  
 Unit No. 2  
 Northeast Nuclear Energy Company  
 c/o Ms. Patricia A. Loftus  
 Director - Regulatory Affairs  
 P. O. Box 128  
 Waterford, CT 06385

April 15, 1998

**SUBJECT:** NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING, MILLSTONE NUCLEAR POWER STATION, UNIT 3 (TAC NO. MA1527)

Dear Mr. Bowling:

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing." This notice relates to your application for amendment dated April 14, 1998, which addresses a condition relating to the plant operators' ability to meet the operator response time of 10 minutes assumed in Chapter 15 of the Final Safety Analysis Report for termination of an Inadvertent Safety Injection event.

Sincerely,

S. Dembek for/  
 James W. Andersen, Project Manager  
 Special Projects Office - Licensing  
 Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosure: Notice of Consideration

cc w/encl: See next page

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

April 15, 1998

Mr. Martin L. Bowling, Jr.  
Recovery Officer - Millstone  
Unit No. 2  
Northeast Nuclear Energy Company  
c/o Ms. Patricia A. Loftus  
Director - Regulatory Affairs  
P. O. Box 128  
Waterford, CT 06385

SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING,  
MILLSTONE NUCLEAR POWER STATION, UNIT 3 (TAC NO. MA1527)

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The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing." This notice relates to your application for amendment dated April 14, 1998, which addresses a condition relating to the plant operators' ability to meet the operator response time of 10 minutes assumed in Chapter 15 of the Final Safety Analysis Report for termination of an Inadvertent Safety Injection event.

Sincerely,

A handwritten signature in cursive script, appearing to read "James W. Andersen".

James W. Andersen, Project Manager  
Special Projects Office - Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosure: Notice of Consideration

cc w/encl: See next page

Northeast Nuclear Energy Company

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Millstone Nuclear Power Station  
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Millstone Nuclear Power Station  
Unit 3

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UNITED STATES NUCLEAR REGULATORY COMMISSIONNORTHEAST NUCLEAR ENERGY COMPANYDOCKET NO. 50-423NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO  
FACILITY OPERATING LICENSE. PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-49 issued to Northeast Nuclear Energy Company (the licensee) for operation of Millstone Nuclear Power Station, Unit 3, located in New London County, Connecticut. The proposed change to Technical Specification (TS) 3/4.4.4, Relief Valves, would ensure that the Power-Operated Relief Valves (PORVs) will be capable of automatic cycling as well as manual cycling when in the TS 3/4.4.4 action statements that allow indefinite continued operation. The proposed amendment also makes an editorial change, adds PORV surveillance requirements, and modifies the associated Bases section. The proposed changes provide added assurance that the pressurizer safety relief valves will not be damaged due to water relief during an inadvertent safety injection event.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed

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. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

NNECO has reviewed the proposed revision in accordance with 10CFR50.92 and has concluded that the revision does not involve a significant hazards consideration (SHC). The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not satisfied. The proposed revision does not involve [an] SHC because the revision would not:

1. Involve a significant increase in the probability or consequence of an accident previously evaluated.

Currently, timely operator action is required to prevent the pressurizer from filling and potentially challenging the pressurizer safety valves under water relief. The proposed TS changes provide added assurance that the safety valves will not be challenged by requiring the PORVs to be available for automatic pressure control. The changes to the Surveillance Requirements add the appropriate requirements to provide assurance that the automatic capability of the PORVs is OPERABLE. The quarterly analog channel operational test for the PORV high pressurizer pressure channels will not include valve operation. However, it does involve changing the opening logic from 2/4 to 1/3 and, thus, performing the surveillance increases the probability of the PORVs opening inadvertently. If the automatic capability of one PORV is INOPERABLE for more than 72 hours, shutdown is required. If the automatic capability of both PORVs is INOPERABLE for more than one hour, shutdown is required. If the block valves have been closed but the automatic capability of the PORVs is OPERABLE, an EOP [emergency operating procedure] change has been made to assure that the PORV block valve would be opened within ten minutes of an Inadvertent ECCS [emergency core cooling system] actuation at power. The new analysis shows that this is sufficient to assure that the PORVs would control RCS [reactor coolant system] pressure if water relief is experienced and the safety valves would not be challenged. Thus, it is concluded that the change provides added assurance that the safety valves would not fail due to water discharge.

Evaluations and analysis have been performed to demonstrate that the PORVs and the associated piping are qualified for water relief from an Inadvertent ECCS Actuation at Power Operation for one hour from event initiation. This provides significant margin for operator action to terminate the event.

The PORV control logic has been upgraded to be safety grade and single failure proof. A 2/4 logic is used for opening and 3/4 logic is used for subsequent

closure. With the upgrade of the PORV control logic, there is added assurance that the PORV will be capable of providing automatic pressure control and preventing challenges to the safety valves, particularly under water solid conditions. However, there is a small impact on the probability of inadvertent opening of both PORVs resulting from multiple channel failures. With the new safety grade PORV control logic, two failed high pressurizer pressure channels will result in inadvertent opening of both PORVs. With the current logic, a single failed high pressurizer pressure channel would result in opening a PORV. However, the 2/4 closure logic will re-close the PORV when pressurizer pressure drops below 2200 psia. With the current logic three failed high pressurizer pressure channels are required for the PORVs to inadvertently open and remain open. Thus it is concluded that there is an increase in the probability that the PORVs will inadvertently open and remain open.

However, multiple channels failing high are required for the PORVs to inadvertently open and remain open. For failure modes such as loss of power for the transmitter or a failure of the instrument tubing, the channel will fail low. Failure modes that can result in the channel failing high are highly unlikely. Further, the new logic will require energization in order to open the PORVs, further minimizing the potential for inadvertent opening. These failures, which result in the PORVs automatically opening and remaining open, do not disable the ability of the operators to close the PORVs by taking their control switch to the close position. Thus, it is concluded that the increase in risk is negligible. The consequences of inadvertent opening of both PORVs is bounded by the analysis provided in Chapter 15.6.1 Inadvertent Opening of Pressurizer Safety or Relief Valve.

In the event of an inoperable pressurizer pressure channel, the channel will be placed in the tripped condition. This will change the opening logic from 2/4 to 1/3 and the subsequent closure logic from 3/4 to 3/3. This means that, when a pressurizer pressure channel is inoperable, a single failure of a pressurizer pressure channel high will cause both PORVs to open and remain open. Thus it is concluded that the Technical Requirements Manual (TRM) change which addresses specific surveillance controls, also results in an increase in the probability that the PORVs will inadvertently open and remain open. However, procedural controls will be implemented and controlled in the TRM that will require a plant shutdown if the channel is inoperable for more than thirty days.

The setpoint for the PORV opening logic has been selected to assure that the PORVs will open prior to the safety valves, taking into account instrument uncertainties. The setpoint will be specified and controlled in the Technical Requirements Manual. This minimizes the potential challenges to the pressurizer safety valves under steam as well as water solid conditions. The PORV closure logic will be 3/4 that actuates when pressurizer pressure drops 20 psi below the opening setpoint. Since the stroke time for the PORV is very short, the closing pressure is adequate to assure that the valve will cycle as designed.

An EOP [Emergency Operating Procedure] change will direct the operator to open the PORV block valve if it has been closed due to excessive seat leakage. The EOP change will not result in the opening of the PORV block valve when the power has been removed when required to prevent a small break LOCA [loss-of-coolant accident]. This includes leakage from the PORV such that there is no assurance that the PORV would re-close as required to control RCS pressure. Thus, the PORV block valve would be opened only when there is assurance that the PORV will open and re-close as required. Thus, the EOP change does not impact the probability of a failed open PORV.

Credit is now being taken for the PORVs to prevent challenges to pressurizer safety valves under water relief. If the PORVs were to fail to control RCS pressure, it is possible for water relief through the safety valves to occur. This also can result if both of the PORV block valves cannot be opened. Since the safety valves and the associated piping are not qualified for water relief, the valves may be damaged and may not reseal, resulting in an unisolable RCS leak. However, this would require multiple failures since the PORVs are redundant. The accident analysis has shown that DNB [departure from nucleate boiling] is not a concern and thus, there would be no failed fuel associated with this event. In addition, any RCS leakage would be inside containment. The analysis provided in FSAR [Final Safety Analysis Report] Section 15.6.1 for an Inadvertent Opening of a Pressurizer Safety or Relief Valve bounds the opening of both PORVs since the capacity of two PORVs is equivalent to one pressurizer safety valve.

Thus it is concluded that the proposed changes do not involve a significant increase in the probability or consequence of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

The changes provide added assurance that an Inadvertent ECCS Actuation at Power Operation will be mitigated and meet the requirement that a moderate frequency event will not lead to a more serious event without additional failures. The PORVs and associated piping have been qualified for water relief. In addition the PORVs are QA [Quality Assurance] equipment and are single failure proof. The TS changes provide assurance that the PORV automatic function will be OPERABLE or the plant will be shutdown. By crediting the PORVs, there is added assurance that the operators will terminate the event and prevent water relief from the safety valves for which they are not qualified. Since all criteria are met for this event, this does not represent the possibility of an accident of a different type.

Because of the change in the PORV automatic actuation circuitry and the changes in the channel operability and surveillance requirements, the change does increase the probability of an Inadvertent Opening of both PORVs but the consequences are bounded by the analysis provided in FSAR Section 15.6.1 for

Inadvertent Opening of a Safety or Relief Valve. Thus, this does not represent an accident of a different type.

Credit is being taken for the operator to open a PORV block valve if it has been closed due to excessive PORV seat leakage. The PORV block valve will be opened following a Safety Injection actuation only after it has been determined that RCS pressure is above the HPSI [high pressure safety injection] shut off head. This means that charging is sufficient to maintain RCS pressure well above the RCS pressure predicted for the limiting LOCA analysis. Further, the PORV block valve would not be opened when power has been removed because of the potential for operation of the PORV to result in a small break LOCA. Further, the potential for opening the PORV block valve when the PORV is needed for accident mitigation is already addressed in the TS and is part of the licensing basis. Thus, this does not create the possibility of an accident of a different type.

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

With the proposed changes, all criteria for the Inadvertent ECCS actuation at Power Operation are met. The changes provide added assurance that a moderate frequency event would not result in a more serious event without additional failures. The TS changes and EOP change provide added assurance that the PORVs would be available to mitigate this event. Opening the block valve when the PORV can be used to mitigate an accident without the potential for a small break LOCA is already addressed in the TS and is part of the licensing basis. Inadvertent Opening of both PORVs is bounded by the Chapter 15 accident analysis. Thus, it is concluded that the changes have no impact on the margin of safety.

In conclusion, based on the information provided, it is determined that the proposed revision does not involve an SHC.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D59, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By May 20, 1998, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public

Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Learning Resources Center, Three Rivers Community-Technical College, 574 New London Turnpike, Norwich, Connecticut, and at the Waterford Library, ATTN: Vince Juliano, 49 Rope Ferry Road, Waterford, Connecticut. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must

consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to Lillian M. Cuoco, Esq., Senior Nuclear Counsel, Northeast Utilities Service Company, P.O. Box 270, Hartford, Connecticut, 06141-0270, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(I)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated April 14, 1998, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Learning Resources Center, Three Rivers Community-Technical College, 574 New London Turnpike, Norwich, Connecticut, and at the Waterford Library, ATTN: Vince Juliano, 49 Rope Ferry Road, Waterford, Connecticut.

Dated at Rockville, Maryland, this 15th day of April 1998.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "Stephen Dembek".

Stephen Dembek, Project Manager  
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Office of Nuclear Reactor Regulation