

# NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY  
THE HARTFORD ELECTRIC LIGHT COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
HOLYOKE WATER POWER COMPANY  
NORTHEAST UTILITIES SERVICE COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

P.O. BOX 270  
HARTFORD, CONNECTICUT 06101  
(203) 666-6911

September 4, 1980

Docket No. 50-245  
B10065

Director of Nuclear Reactor Regulation  
Attn: Mr. Dennis M. Crutchfield, Chief  
Operating Reactors Branch #5  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1  
Proposed Technical Specification Changes  
for Full Core Off-Load

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its operating license for Millstone Unit No. 1 (DPR-21), by incorporating the attached changes into the Technical Specifications. The changes would enable a full core off-load to be performed during the seventh refueling outage, scheduled to commence October 4, 1980.

The enclosed "Description of Changes and Safety Evaluation Summary" should provide sufficient information for the NRC Staff to review and approve the changes on an expedited schedule, such that we may implement them at the beginning of the refueling outages. The off-site Nuclear Review Board has reviewed and approved these proposed changes which have been found to not constitute any unreviewed safety questions, pursuant to 10CFR50.59.

Since this change is reload related, it is considered to be a supplement to the Reload 7 licensing submittal which is being sent under separate cover. The Reload 7 licensing submittal contains a number of additional proposed specification changes which are not required at the beginning of the refueling outage, as is the case herein. The appropriate Class IV type of amendment fee, pursuant to 10CFR170, is \$12,300 for the reload submittal, which is enclosed in that transmittal. Thus, there is no additional fee required for changes proposed in this letter.

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We respectfully request that these changes be reviewed and approved as soon as possible, and if possible, no later than October 4, 1980. Should you have any questions, please contact us.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

*W. G. Cousil*

W. G. Cousil  
Senior Vice President

By: *W. Fee*

W. F. Fee  
Executive Vice President

Attachment

STATE OF CONNECTICUT )  
                                  ) ss. Berlin  
COUNTY OF HARTFORD )

*Sept. 4, 1980*

Then personally appeared before me W. F. Fee, who being duly sworn, did state that he is Executive Vice President of Northeast Nuclear Energy Company, a Licensee herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Licensees herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.

*Sheila M. Oates*  
Notary Public

My Commission Expires March 31, 1981

## DESCRIPTION OF CHANGES AND SAFETY EVALUATION SUMMARY

The proposed change allows for core modifications to be performed without the present requirement for three (3) counts per second (cps) on the Source Range Monitor (SRM) under certain circumstances. For unloading, this is allowed while using a spiral unloading pattern, thereby constantly decreasing the reactivity of the core without creating imbedded concavities. Therefore, shutdown margin will not degrade during unloading. The major advantage of this change is to avoid the use of portable dunking type detectors. This elimination results in a decreased number of bundle and detector moves, and removes the handling accident potential inherent with detector cables strung across the core.

During reloading, portable detectors will be used near the center of the core to achieve 3 cps within the first few bundle moves. This is necessary since Millstone does not have an SRM near the core center and because sources are no longer installed in the core. Eight bundles are allowed to be installed before the 3 cps requirement is reinstated. This allows the Reactor Engineer to load a maximum of two cells in the vicinity of SRM's or portable detectors. Three counts per second will likely be established in two separate detectors (SRM or portable) within four bundle moves. After building a central core zone of up to 25 cells, loading will generally proceed in a spiral fashion. Portable dunking detectors will be removed as soon as SRM count rates are established sufficient to meet procedural requirements.

The overall change is considered desirable since it minimizes the number of bundle and dunker-detector moves and, therefore, reduces the likelihood of fuel handling accidents. Also, exposure to plant personnel is reduced and outage time can be reduced. This is accomplished without degradation of the shutdown margin of the core and requires only a limited number of fuel moves without minimum background count on the instrumentation. Similar changes have been approved by the NRC for other BWR's, most notably, Hatch and Pilgrim.

The loading of eight fuel assemblies prior to having operable source range detectors does not pose any unreviewed safety question in that it does not increase the probability of any accident or malfunction of equipment, it does not create a different accident, and it does not reduce the margin to safety as defined in Technical Specifications.