

NORTHEAST UTILITIES



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

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September 5, 1985

Docket No. 50-423
A04910

Director of Nuclear Reactor Regulation
Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

- References:
- (1) D. G. Eisenhower letter to All Licensees of Operating Reactors, Applicants for Operating Licenses and Holders of Construction Permits, dated July 8, 1983.
 - (2) W. G. Counsil letter to D. G. Eisenhower, dated November 8, 1983.
 - (3) W. G. Counsil letter to D. G. Eisenhower, dated March 16, 1984.
 - (4) B. J. Youngblood letter to J. F. Opeka, Request for Additional Information, Generic Letter 83-28, dated May 20, 1985.

Dear Mr. Youngblood.

Millstone Nuclear Power Station, Unit No. 3
Response to Request for Additional Information
Generic Letter 83-28
Generic Implication of Salem ATWS Events

Reference (1) requested that Applicants for Operating Licenses provide the status of their current conformance with Generic Letter 83-28 and their plans and schedules for any needed improvements required for full conformance. Accordingly, Northeast Nuclear Energy Company (NNECO), on behalf of Millstone Unit No. 3, responded in References (2) and (3).

Reference (4) requested additional information be provided to the Staff with respect to vendor interface programs (items 2.1 and 2.2.2), Technical Specifications (items 3.1.3 and 3.2.3), periodic maintenance and trending programs (items 4.2.1 and 4.2.2), and on-line testing (item 4.5.3). Attachment I provides our response.

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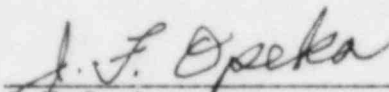
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If you have any questions or concerns regarding this submittal, please contact our licensing representative directly.

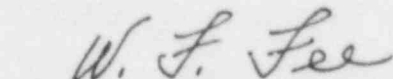
Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY
et. al.

BY NORTHEAST NUCLEAR ENERGY COMPANY
Their Agent



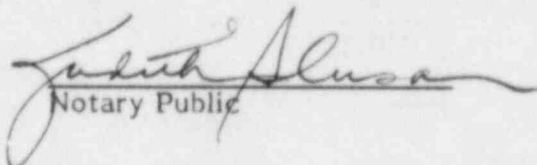
J. F. Opeka
Senior Vice President



By: W. F. Fee
Executive Vice President

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

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, an Applicant herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Applicants herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.



Notary Public

My Commission Expires March 31, 1988

Attachment 1

Responses to NRC Questions on Generic Letter 83-28

Question No.

100.0 - Licensing Branch No. 1, Generic Letter 83-28

100.2 - Item 2.1 (part 2) - Incomplete

Applicant needs to submit detailed information describing his vendor interface program for reactor trip system components. Information supplied should state how the program assures that vendor technical information is kept complete, current and controlled throughout the life of the plant and should also indicate how the program will be implemented at Millstone 3.

- Item 2.2.2 - Incomplete

Applicant needs to present his evaluation of the NUTAC program and describe how it will be implemented at Millstone 3. The staff found the NUTAC program fails to address the concern about establishing and maintaining an interface between all vendors of safety-related equipment and the utility. Accordingly the licensee will need to supplement his response to address this concern. This additional information should describe how current procedures will be modified and new ones initiated to meet each element of item 2.2.2 concern.

Response (Items 2.1 and 2.2.2)

The Vendor Equipment Technical Information Program (VETIP), as defined in the March 1984 NUTAC document, is considered a valid response to Section 2.2.2 of NRC Generic Letter 83-28. Millstone Unit No. 3 has implemented the program as described therein to the extent practicable and is working within the industry to further refine the program. Although not directly under the purview of the NUTAC, the similarity of the vendor interface requirements for Item 2.1 to those of Item 2.2.2 indicates that many aspects of the NUTAC-developed program are applicable to both items. Accordingly, it is requested that the NRC re-analyze and reconsider the request for additional information.

Reference (1) (Attachment 2) provides a description of the vendor interface programs for Millstone Unit Nos. 1, 2 and 3 and the Haddam Neck Plant.

- Item 3.1.3 - Incomplete

Applicant should commit to resolving this concern when Technical Specifications are written.

Reference (1) W.G. Counsil letter to D.G. Eisenhut, AO3381, dated November 8, 1983.

- Item 3.2.3 - Incomplete

Applicant should commit to resolving this concern when Technical Specifications are written.

Response (Items 3.1.3 and 3.2.3)

Millstone Unit No. 3 Technical Specifications (Draft) have been submitted to the NRC for review and approval. During the development and review of those Technical Specifications by NNECO the impact of post-maintenance test requirements on component reliability and safety was considered. The required tests and test frequencies are appropriate to ensure component operability while not degrading component operability or performance. Reviews of incoming vendor information and engineering recommendations will continue to be performed with respect to impact on component reliability. In the event that the potential for degradation of safety due to post-maintenance test requirements is identified in the future, appropriate changes and justification will be submitted for NRC approval.

- Item 4.5.3 - Incomplete

Applicant needs to provide results of review of existing or proposed intervals for on-line testing considering the concerns of 4.5.3.1 to 4.5.3.5 in the generic letter. Proposed Technical Specification changes resulting from this review shall be submitted for review.

Response

During the development of Millstone Unit No. 3 Technical Specifications (Draft) Generic Letter 85-09 "Technical Specifications for Generic Letter 83-28, Item 4.3" changes to Westinghouse Standard Technical Specifications (W-STs) Table 4.3-1 "Reactor Trip System Instrumentation Surveillance Requirements" were incorporated into the Unit 3 specific Table 4.3-1.

Additionally, Millstone Unit No. 3 is a member of the Westinghouse Owners Group (WOG) subcommittee for Technical Specification optimization. This subcommittee is currently active in evaluating changes to the Reactor Trip system actuation logic and Reactor Trip Breakers surveillance frequencies. Millstone Unit No. 3 has already proposed changes to W-STs Table 4.3-1, "Reactor Protection System" surveillance frequencies resulting from this WOG activity.

100.3 - Introduction

Northeast Utilities, the applicant for Millstone Nuclear Power Station, Unit 3, submitted their responses to Generic Letter 83-28 on November 8, 1983 and March 16, 1984. The responses have been reviewed with respect to Items 4.1, 4.2.1 and 4.2.2 of the Generic Letter. The

applicant's responses were not sufficiently detailed to permit an evaluation of the adequacy of the periodic maintenance and trending programs for the breakers. The following additional information is required to evaluate compliance with Items 4.2.1 and 4.2.2.

- Item 4.2.1 - Periodic Maintenance Program for Reactor Trip Breakers

Criteria for Evaluating Compliance with Item 4.2.1

The Millstone Nuclear Power Station, Unit 3 Reactor Trip System utilizes Westinghouse DS-416 circuit breakers. The primary criteria for an acceptable maintenance program for the DS-416 Reactor Trip Breaker (RTB) are contained in Westinghouse Maintenance Manual for the DS-416 Reactor Trip Circuit Breaker, Revision 0, October 1984. The NRC staff, Equipment Qualification Branch, has reviewed this document and endorsed the maintenance program described in it. More specifically, the criteria used to evaluate compliance include those items in this document that relate to the safety function of the breaker, supplemented by those measures that must be taken to accumulate data for trending.

Issues Relating to Item 4.2.1

The applicant's response states that Millstone Unit No. 3 is currently in the process of establishing the preventative maintenance program.

The Millstone Nuclear Power Station, Unit 3 Periodic Maintenance Program for the reactor trip breakers should include, on a six-month basis (or when 500 breaker operations have been counted, whichever comes first):

1. General inspection to include checking of breaker's cleanliness, all bolts and nuts, pole bases, arc chutes, insulating link, wiring and auxiliary switches;
2. The retaining rings inspection, including those on the undervoltage trip attachment (UVTA) and shunt trip attachment (STA);
3. Arcing and main contacts inspection as specified by the Westinghouse Maintenance Manual;
4. UVTA check as specified by the Westinghouse Maintenance Manual, including replacement of UVTA if dropout voltage is greater than 60% or less than 30% of rated UVTA coil voltage;
5. STA check as specified by the Westinghouse Maintenance Manual;
6. Lubrication as specified by the Westinghouse Maintenance Manual;
7. Functional check of the breaker's operation prior to returning it to service.

The Millstone Nuclear Power Station Unit No. 3 Periodic Maintenance Program for the reactor trip breakers should include, on a refueling interval basis (or when 500 breaker operations have been counted, whichever comes first):

1. Pre-cleaning insulation resistance measurement and recording;
2. RTB dusting and cleaning;
3. Post-cleaning insulation resistance measurement and recording, as specified by the Westinghouse Maintenance Manual;
4. Inspection of main and secondary disconnecting contacts, bolt tightness, secondary wiring, mechanical parts, cell switches, instruments, relays or other panel mounted devices;
5. UVTA trip force and breaker load check as specified by the Westinghouse Maintenance Manual;
6. Measurement and recording RTB response time for the undervoltage trip;
7. Functional test of the breaker prior to returning to service as specified by the Westinghouse Maintenance Manual.

The maintenance procedure should include a caution to the maintenance personnel against undocumented adjustments or modifications to RTBs.

The applicant is to confirm that the periodic maintenance program will include these fourteen items at the specified intervals or commit to their inclusion.

Response

The Millstone Unit No. 3 Periodic Maintenance (PM) program will include the above-stated fourteen items at the specified intervals. Maintenance Procedure (MP) 3786AH "PM Procedure Reactor Trip Breakers" has been drafted in accordance with the criteria of Westinghouse Maintenance Manual for the DS-416 Reactor Trip Breakers, Revision 0, October 1984.

- Item 4.2.2 - Trending of Reactor Trip Breaker Parameters to Forecast Degradation of Operability.

Criteria for Evaluating Compliance with Item 4.2.2

Four parameters have been identified as trendable and are included in the criteria for evaluation. These are: (a) undervoltage trip attachment dropout voltage, (b) trip force, (c) breaker response time for undervoltage trip, and (d) breaker insulation resistance.

- Issues Relating to Item 4.2.2

The applicant states in his March 16, 1984 response that trending of trip shaft torque and undervoltage testing results will be implemented for the Millstone Unit No. 3 reactor trip breakers in the same manner as for Millstone Unit No. 2 reactor trip breakers.

The applicant should clarify what he means by "undervoltage testing results" and whether or not these tests include both breaker response time and the dropout voltage for the undervoltage trip. The applicant should also state his position concerning trending the breaker insulation resistance. He should also identify how often the analysis will be performed and how the information derived from the analysis will be used to affect periodic maintenance.

Response

Millstone Unit No. 3 will trend the following parameters at the indicated frequencies:

1. Undervoltage (UV) trip attachment dropout voltage - every six months.
2. Trip torque - every refueling.
3. Breaker response time for UV trip - every refueling

The information derived from analyzing these trends will be compared to acceptance criteria each time data is taken. Appropriate preventative or corrective maintenance will be performed as necessary.

Millstone Unit No. 3 sees no value to trending breaker insulation resistance, and does not plan to do so. This value is verified by procedure. Any discernable drop in this value will be investigated and corrected prior to returning the breaker to service.