

50-423



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

January 13, 1997

Mr. B. D. Kenyon
President - Nuclear Group
Northeast Utilities Service Company
c/o Mr. Terry L. Harpster
Director - Nuclear Licensing Services
P.O. Box 128
Waterford, CT 06385

SUBJECT: MILLSTONE UNIT 3 - REQUEST FOR ADDITIONAL INFORMATION RELATED TO
ALTERNATE AC POWER SOURCE REQUIREMENTS (TAC NO. M96054)

Dear Mr. Kenyon:

During a review of the Millstone Unit 3 station blackout (SBO) systems, the special inspection team (SIT) identified a concern with the design of the alternative ac (AAC) power source, the SBO diesel generator (SBO-DG), and its dedicated battery. The AAC power source may not be available if SBO occurs due to a loss of onsite power (emergency diesel generators) after one hour of loss of offsite power (LOOP). The AAC power source at Millstone Unit 3, is controlled and monitored by a computer. The AAC power system design includes two batteries (one 48-volt for the computer and the other 125-volt for DG field flashing, oil pump, and breaker control power). The battery chargers for these batteries are fed from offsite power when the AAC power is not operating. If the LOOP occurs first, these batteries will be depleted due to connected loads (computer for 48-volt battery and oil pump for 125-volt battery). Northeast Nuclear Energy Company (NNECO) determined that if the loss of onsite power occurs after one hour of the LOOP event, the batteries will be drained sufficiently so that the SBO-DG cannot be started.

By letter dated March 30, 1990, NNECO stated that the AAC power source will meet the criteria specified in Appendix B to NUMARC 87-00. By letter dated August 27, 1996, the NRC staff requested additional information on how Millstone Unit 3 meets the NUMARC 87-00, Appendix B criteria; specifically items B.8(e) and B.8(f). By letter dated October 18, 1996, NNECO agreed that the SBO-DG design and/or operation should be modified to ensure availability of the SBO-DG at any time during the postulated 8-hour LOOP, regardless of the relative timing of emergency diesel generator failure/unavailability. NNECO stated that several options were under consideration to achieve this. NNECO committed to identify to the NRC staff by December 31, 1996, the specific design/operation modification required to be made to ensure the availability of the SBO-DG at any time during a postulated 8-hour LOOP.

In a letter dated December 20, 1996, NNECO stated that it has completed its review of the options available to ensure the availability of the SBO-DG and has determined that the best solution is to modify the design of the SBO system. The modification may require operator actions within the first hour

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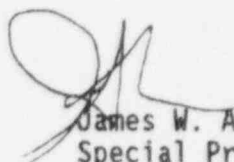
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Mr. B. D. Kenyon

- 2 -

after a LOOP to power the SBO-DG auxiliaries from either the SBO-DG or from another diesel generator. The staff has several concerns about the proposed modification. Enclosed is a request for additional information. Please provide your response within 45 days from the receipt of this request.

Sincerely,

A handwritten signature in black ink, appearing to be 'JW Andersen', written over the typed name.

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

Docket No. 50-423

Enclosure: As stated

cc w/encl: See next page

Mr. B. D. Kenyon

- 2 -

January 14, 1997

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Sincerely,

Original signed by:

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

Docket No. 50-423

Enclosure: As stated

cc w/encl: See next page

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DATE	01/13/97	01/10/97	01/13/97					

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REQUEST FOR ADDITIONAL INFORMATION

ALTERNATE AC POWER SOURCE REQUIREMENTS

MILLSTONE UNIT 3

By letter dated December 20, 1996, Northeast Nuclear Energy Company (NNECO) stated that it has completed its review of the options available to ensure the availability of the station blackout diesel generator (SBO-DG) and has determined that the best solution is to modify the design of the SBO system. The modification may require operator actions within the first hour after a loss of offsite power (LOOP) to power the SBO-DG auxiliaries from either the SBO-DG or from another diesel generator. The staff has several concerns about the proposed modification and NNECO's responses to the following requests are needed:

1. After a LOOP, how soon will the SBO-DG auxiliaries be powered from the SBO-DG or another diesel generator? Also, which procedure will cover this requirement?
2. If the SBO-DG is used to power the auxiliaries:
 - a. How long will the SBO-DG be running and at what load?
 - b. What are the consequences of running the SBO-DG at light load conditions?
 - c. What is the impact on the SBO-DG fuel supply in view of the fact that the SBO-DG may be running for an additional 8 hours?
3. If another diesel generator is used to power the auxiliaries:
 - a. Provide details of this diesel generator (capacity, connectability, availability, reliability, etc.)
 - b. Is this a new diesel generator?
 - c. Provide details on how it will be interfaced with existing switchgear and equipment.
4. Provide details regarding the testing and operator training requirements resulting from this modification.

Northeast Utilities Service Company

Millstone Nuclear Power Station
Unit 3

cc:

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Millstone Nuclear Power Station
Unit 3

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