RAS 1747

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of:	:	Docket No. 50-423-LA-3
Northeast Nuclear Energy Company	:	'00 MAY 25 A8:08
(Millstone Nuclear Power Station, Unit No. 3)	:	ASLBP No. 00-771-01-LA

CONNECTICUT COALITION AGAINST MILLSTONE AND LONG ISLAND COALITION AGAINST MILLSTONE THIRD SET OF INTERROGATORIES AND REQUEST FOR PRODUCTION DIRECTED TO NORTHEAST NUCLEAR ENERGY COMPANY

The Connecticut Coalition Against Millstone ("CCAM") and Long Island Coalition Against Millstone ("CAM")(collectively, "Intervenors") hereby request Northeast Nuclear Energy Company ("NNECO") to answer this Third Set of Interrogatories, fully, in writing, and under oath, and to produce the documents requested below, within the discovery deadline established in the Atomic Safety and Licensing Board Prehearing Conference Order issued on February 9, 2000.

Al Industry Experience

(1) Attachment 1 to an NNECO letter of May 5, 2000 provides responses to an NRC Staff Request for Additional Information (RAI) of March 14, 2000. Page 5 of Attachment 1 describes an industry OPerating Experience (OE) Program. Please provide details of the OE Program and the scope of its database on events relevant to criticality in spent fuel pools. Also, please provide the descriptions of all such events that are in the database. Relevant events include, but are not limited to, fuel mispositioning events, errors in managing and measuring soluble boron and boron dilution events.

Template = SECY-035

SECY-02

A2 Boron Dilution

Explanatory Note: The Intervenors seek to identify and characterize scenarios in which the concentration of soluble boron in the Millstone 3 spent fuel pool is reduced through dilution. To that end, the Intervenors seek information about all systems and mechanisms that could add water to the pool or remove water from the pool. Specific questions follow.

(1) Please identify all boron dilution analyses performed for this pool, and provide copies of relevant documents.

(2) Please identify and describe in detail all actions (including backfits and procedural changes) that have been taken to reduce the potential for boron dilution at this pool. Please provide copies of relevant documents.

(3) Please identify and describe in detail all piping and systems that could remove water from this pool and from the pool cooling and purification systems. For the purposes of this question, include all water removal pathways, not only those pathways allowed by present procedures. Please provide diagrams, drawings and specifications of relevant piping and systems.

(4) Please identify and describe the potential effect on the pool water inventory of ruptured or broken tubes in a pool cooling heat exchanger. Please provide relevant documents.

(5) Please identify and describe the potential effect on the pool water inventory of pipe leaks, pump seal leaks, inadvertent opening of drain valves, or other water loss pathways from the pool cooling and purification systems. Please provide relevant documents.

(6) Please identify and describe in detail all piping and systems that could add water to this pool and to the pool cooling and purification systems. For the purposes of this section, include all water addition pathways, not only those pathways allowed by present procedures. Please provide diagrams, drawings and specifications of relevant piping and systems.

(7) Please identify and describe in detail all piping that passes through the pool building that could, through leakage, opening of a valve or flange, or addition of couplings, hoses or spool pieces, cause a flow of water into the pool. Please provide diagrams, drawings and specifications of relevant piping and systems.

(8) Please provide the volumes of the fuel pool, the cask pit, the transfer canal and the reactor refueling cavity.

(9) Please describe the rainwater flow paths on and in the vicinity of the roof of the fuel pool building and provide estimates of rainwater flow volumes.

A3 Design Codes

(1) Attachment 5 to the NNECO license amendment application contains Section 2.3 on Codes, Standards and Practices. At page 2-3, this Section lists the design code ANSI N210-1976. The American Nuclear Society has revised this code and has incorporated the revision in the code ANSI/ANS-57.2-1983. Is NNECO bound by ANSI/ANS-57.2-1983 for the purposes of the requested license amendment?

A4 Calculations of K-EFF

(1) Given the implementation of the proposed re-racking of the Millstone 3 pool, and assuming an absence of soluble boron, what would be the calculated K-effective in each of the regions of the pool if various combinations of fresh fuel assemblies were placed in

the racks? For this purpose, various combinations of fresh fuel assemblies would include one assembly, two adjacent assemblies, four adjacent assemblies, and a full rack, where in each case the surrounding cells would be occupied by assemblies of the highest reactivity allowed by the Technical Specifications.

A5 Pages from the FSAR

(1) Please provide the following pages from the Millstone 3 FSAR:

Text Pages:

1.2-5

3B-16 through 3B-80

3B-90 through 3B-99

3B-125 through 3B-129

3B-134 through 3B-135

7.6-4 through 7.6-5

9.2-1 through 9.2-54

9.4-10 through 9.4-16

15.7-4 through 15.7-6

Tables:

1.7-2

2.4-12

2.4-13

9.2-5

9.2-6

9.4-3

15.7-8

15.7-9

Figures:

3.8-20

3.8-79

3.8-80

3.8-81

4.3-3

6.3-6

9.1-2A

9.1-6

9.1-9

9.1-10

9.1-11

9.1-12

9.1-13

9.1-18

9.2-2

9.3-9

15.1-11

15.1-14

A6 Control Room Operator Logs

(1) Please provide the complete control room operator logs for Millstone Units 1, 2 and 3 during each refueling, from the time of reactor shutdown to the time of reactor startup.

A7 Reactor Engineering Refueling Outage and Fuel Handling Logs

(1) Please provide the complete reactor engineering refueling outage and fuel handling logs for Millstone Units 1, 2 and 3 pertaining to each refueling.

A8 Contention 4

(1) Please describe all procedures currently used during fuel movements in and around the spent fuel pool at Millstone 3. Please provide all relevant documents.

(2) Please describe all procedures currently used to test and maintain equipment used during fuel movement in and around the Millstone 3 spent fuel pool.

(3) Please provide all audit reports by internal (e.g., QA/QC) and external (NRC/INPO) sources of fuel handling practices at Millstone 3.

(4) Please provide all non-conformance reports, NRC inspection findings, conditions adverse to quality, adverse conditions reports and quality assurance/quality control reports regarding fuel handling equipment and spent fuel storage at Millstone 3.

(5) Please provide all follow-up, resolution and close-out reports associated with the documents provided in response to item (4) above.

(6) Please provide all documented evaluations and assessments performed by or on behalf of Millstone 3 of nuclear industry events involving fuel handling events and mispositioned components.

(7) Please provide all design basis documents on the fuel handling equipment, spent fuel pool (including storage racks) and spent fuel pool cooling syste,

(8) Please provide all calculations, evaluations and assessments regarding fuel handling accidents in the spent fuel pool or in the reactor at Millstone 3.

(9) Please describe the training provided to persons performing and/or supervising spent fuel handling activities at Millstone 3, including the lesson plans and handouts presented to students. Please provide all relevant documents.

A9 Contention 5

(1) Please describe all procedures currently used to control boron concentration in the spent fuel pool at Millstone 3, including systems and components used to add boron or borated water to the pool, remove boron or borated water from the pool, and monitor the amount of boron in the water. Please provide all relevant documents.

(2) Please describe all procedures currently used to test and maintain equipment used to control boron concentration in the Millstone 3 spent fuel pool. Please provide all relevant documents.

(3) Please provide all audit reports by internal (QA/QC) and external (NRC/INPO) sources of spent fuel pool water chemistry management at Milltone 3. Please provide all relevant documents.

(4) Please provide all non-conformance reports, NRC inspection findings, conditions adverse to safety, adverse conditions reports and quality assurance/quality control reports regarding spent fuel pool water chemistry and equipment used to control boron concentration at Millstone 3.

(5) Please provide all follow-up, resolution and close-out reports associated with documents provided in response to item (4) above.

(6) Please provide all documented evaluations and assessments performed by or on behalf of MP3 of nuclear industry events involving spe fuel pool water boron dilution events.

(7) Please provide all design basis documents on the systems/ components used to control boron concentration in Millstone 3 spent fuel pool.

(8) Please provide all relevant documentation of the training provided for performing/supervising boron monitoring/testing at Millstone 3

A10Errors in Fuel Handling

(1) Please identify the names of all personnel and their positions who provided and reviewed the information submitted by NNECO in its response to Intervenors' Interrogatory No. F-1 of April 4, 2000.

(2) Please identify all databases relied upon as sources for the information provided by NNECO in its response to Intervenors' Interrogatory No. F-1 of April 4, 2000.

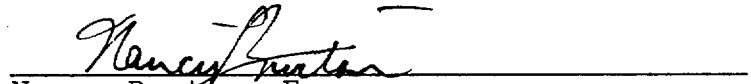
(3) Please describe in detail the criteria used to identify errors as disclosed in NNECO's response to Intervenors' Interrogatory No. F-1 of April 4, 2000.

A9 Full Core Off-Load

(1) Please identify the source of information provided to the NRC as to when Millstone Unit 3 will lose the capacity in the spent fuel pool to perform a full core off-load. Please provide copies of relevant documents.

(2) Please state when Millstone Unit 3 will lose the capacity to perform a full core off-load is the proposed license amendment is not granted. Please provide copies of relevant documents.

CONNECTICUT COALITION AGAINST MILLSTONE
LONG ISLAND COALITION AGAINST MILLSTONE

By: 

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Dated at Redding,
Connecticut this
18th day of May, 2000.

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CERTIFICATE OF SERVICE

I hereby certify that copies of "Connecticut Coalition Against Millstone and Long Island Coalition Against Millstone Third Set of Interrogatories and Request for Production Directed to Northeast Nuclear Energy Company" in the above-captioned proceedings have been served on the following by deposit in the United States Mail, first class, this 19th day of May, 2000, and, in addition, telefaxed to David A. Repka, Esq., on May 18, 2000:

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Adjudications Staff)
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