

RAS-1667

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
USNRC

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CONNECTICUT COALITION AGAINST MILLSTONE AND  
LONG ISLAND COALITION AGAINST MILLSTONE  
REPLY TO NORTHEAST NUCLEAR ENERGY COMPANY'S FIRST  
SET OF INTERROGATORIES

In accordance with the schedule established in the Atomic Safety and Licensing Board ("Licensing Board") Prehearing Conference Order (Granting Request for Hearing) (LBP-00-02), issued on February 9, 2000, the Connecticut Coalition Against Millstone ("CCAM") and the Long Island Coalition Against Millstone ("CAM") (collectively, "Intervenors") answer this first set of interrogatories fully, in writing and under oath as follows:

I. General Interrogatories

A. A. Interrogatory G-1

Identify each person who supplied information for responding to these interrogatories and requests for the production of documents. Specifically note the interrogatories for which each person supplied information.

David Lochbaum  
Nuclear Safety Engineer  
Union of Concerned Scientists  
1616 P Street NW  
Washington DC 20036

TEMPLATE = SECY-035

SECY-02

Gordon Thompson, Ph.D.  
Institute for Resource and Security Studies  
27 Ellsworth Avenue  
Cambridge MA 02139

B. Interrogatory G-2

For each admitted contention, identify each person whom Intervenor expect to provide sworn affidavits and declarations for the written filing for the Subpart K proceeding and each person who would testify in any subsequent evidentiary proceeding. For each person identified, describe that person's professional affiliation, address, area of professional expertise, qualifications and educational and scientific experience. Also, describe the general subject matter on which each person is expected to provide sworn affidavits or testimony in the proceeding.

Contention 4: David Lochbaum  
Nuclear Safety Engineer  
Union of Concerned Scientists  
1616 P Street NW  
Washington DC 20036

Contention 5: David Lochbaum

Contention 6: Gordon Thompson, Ph.D.  
Resource and Security Analyst  
Institute for Resource and Security Studies  
27 Ellsworth Avenue  
Cambridge MA 02139

Please refer to the curriculum vitae of Mr. Lochbaum and Dr. Thompson. Each is expected to provide sworn affidavits or testimony in support of Contentions 4 and 5 (Mr. Lochbaum) and Contention 6 (Dr. Thompson.)

C. Interrogatory G-3

For each person identified under Interrogatory G-2, provide a list of all publications authored by the expert within the preceding 10 years, and a listing of any other cases in

in which the expert has testified as an expert at a trial or hearing, or by deposition within the preceding four years.

Please refer to the curriculum vitae of Mr. Lochbaum and Dr. Thompson. Both have testified as an expert at a trial or hearing or by deposition In the Matter of Carolina Power & Light (Shearon Harris Nuclear Power Plant), Docket No. 50-400-LA, ASLBP No. 99-762-02-LA, before the Atomic Safety and Licensing Board, U.S. Nuclear Regulatory Commission.

## II. Specific Interrogatories

### A. Contention 4: "Undue and Unnecessary Risk to Worker and Public Health and Safety"

Interrogatory No. 4-1: Please identify any and all documents on which Intervenors intend to rely as a basis for Contention 4.

Please see attachment "A."

Interrogatory No. 4-2: Please identify any and all actual events, at Millstone Station or elsewhere, on which Intervenors intend to rely as a basis for Contention 4.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 4-3: Please identify any and all hypothetical design basis scenarios on which Intervenors intend to rely as a basis for Contention 4.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 4-4: Please identify and describe "another kind of rack device" that would allow for less reliance on administrative controls than the racks proposed by NNECO, as suggested by counsel for Intervenors during the December 13, 1999, prehearing conference (Tr. at 87).

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 4-5: Please state the basis for concluding that there is a nexus between the 1999 fuel fabrication facility criticality accident in Japan and the likelihood of a criticality accident in the Millstone Unit 3 SFSP.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory 4-6: Please state the basis for concluding that there is a nexus between the 1999 loss of an unmanned spacecraft and the likelihood of a criticality accident in the Millstone Unit 3 SFSP.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

B. Contention 5: "Significant Increase in Probability of Criticality Accident"

Interrogatory No. 5-1: Please identify any and all documents on which Intervenors intend to rely as a basis for Contention 5.

Please see attachment "A."

Interrogatory No. 5-2: Please identify any and all actual events, at Millstone Station or elsewhere, on which Intervenors intend to rely as a basis for Contention 5.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 5-3: Please identify any and all hypothetical design basis scenarios on which Intervenors intend to rely as a basis for Contention 5.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 5-4: Please describe any mechanism Intervenors believe could lead to boron dilution in the Millstone Unit 3 spent fuel storage pool, including, but not limited to, the source and quantity of water required to accomplish the dilution.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 5-5: Please state whether Intervenors have any challenge to the proposed 800 ppm boron concentration with respect to its sufficiency to control criticality, assuming the concentration is verified. If so, please state the nature of the challenge and the basis for it.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 5-6: Please identify and describe any operational circumstances or conditions where Intervenors believe it would be appropriate to reduce boron concentration in the Millstone Unit 3 SFSP.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 5-7: Please state the boron surveillance frequency that Intervenors believe would be sufficient to satisfy the concern of this contention.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 5-8: Please state whether the frequency identified in the response to Interrogatory No. 5-7 should, in Intervenors' view, be incorporated into Technical Specifications, or whether inclusion in relevant plant operating procedures would be adequate.

The Intervenors currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory 5-9: Please state the basis for concluding that there is a nexus between a mispositioning of fresh fuel at

Oyster Creek and an increase in the probability of a criticality accident at the Millstone Unit 3 SFSP.

The Intervenor currently lack information to answer this interrogatory completely; they anticipate receiving such information currently available within thirty days.

C. Contention 6: "Proposed Criticality Control Measures Would Violate Nuclear Regulatory Commission Regulations"

Interrogatory No. 6-1: Please identify any and all documents or citations to documents on which Intervenor intend to rely as a basis for Contention 6.

Please see attachment "."

Interrogatory No. 6-2: Please identify any and all actual events, at Millstone Station or elsewhere, on which Intervenor intend to rely as a basis for Contention 6.

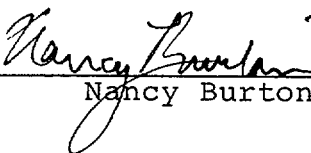
The Intervenor currently lack information to answer this interrogatory completely; they anticipate receiving such information currently unavailable within thirty days.

Interrogatory No. 6-3: Please identify any and all hypothetical design basis scenarios on which Intervenor intend to rely as a basis for Contention 6.

The Intervenor currently lack information to answer this interrogatory competely; they anticipate receiving such information currently unavailable within thirty days.

I declare, under penalty of perjury, that the foregoing is true and correct.

Executed on March 20, 2000.

  
\_\_\_\_\_  
Nancy Burton

## Exhibit A

### Documents:

James P. O'Reilly, Nuclear Regulatory Commission, to Jack A. Lemke, December 20, 1976.

Ernst Volgenau, Director – Office of Inspection and Enforcement, Nuclear Regulatory Commission, "Order to Show Cause and Order Suspending License," December 20, 1976.

NRC Information Notice No. 85-12, "Recent Fuel Handling Events," February 11, 1985.

NRC Information Notice 94-13, "Unanticipated And Unintended Movement Of Fuel Assemblies And Other Components Due To Improper Operation Of Refueling Equipment," February 22, 1994.

NRC Information Notice 92-73, "Removal Of A Fuel Element From A Research Reactor Core While Critical," November 4, 1992.

NRC Information Notice No. 88-20, "Unauthorized Individuals Manipulating Controls And Performing Control Room Activities," May 5, 1988.

NRC Information Notice 95-54, "Decay Heat Management Practices During Refueling Outages," December 1, 1995.

NRC Information Notice 92-21, Supplement 1, "Spent Fuel Pool Reactivity Calculations," April 22, 1992.

NRC Press Release No. 96-74, "NRC Staff Completes Survey Of Refueling Practices At Nation's Nuclear Power Plants," May 22, 1996.

NRC Information Notice 97-68, "Loss Of Control Of Diver In A Spent Fuel Storage Pool," September 3, 1997.

NRC Information Notice 99-21, "Recent Plant Events Caused By Human Performance Errors," June 25, 1999

Hubert Miller, Regional Administrator, Nuclear Regulatory Commission, to J. E. Cross, President Generation Group, Duquesne Light Company, "Notice Of Violation (NRC Inspection Report Nos. 50-334/96-10, 50-412/96-10)," March 24, 1997.

L. J. Callan, Regional Administrator, Nuclear Regulatory Commission, to Guy R. Horn, Vice President - Nuclear Nebraska Public Power District, "Notice Of Violation (NRC Inspection Report 50-298/95-18 and Investigation Case No. 4-96-002)," September 30, 1996.

D. J. Diamond, C.-J. Hsu, and V. Mubayi, Brookhaven National Laboratory, "Probability and Consequences fo Misloading Fuel in a PWR," NUREG/CR-5771, August 1991.

D. J. Diamond, P. Kohut, H. Nourbakhsh, K. Valtonen, and P. Secker, Brookhaven National Laboratory, "Probability and Consequences of Rapid Boron Dilution in a PWR," NUREG/CR-5819, June 1992.

R. L. McGuinness, Northeast Utilities, to D. B. Miller, Northeast Utilities, "Reportability of Spent Fuel Pool Cooling," September 4, 1987.



Donald B. Miller, Jr., Station Director, Connecticut Yankee Atomic Power Company, to Nuclear Regulatory Commission, "Reportable Occurrence LER 50-213/87-015-00," September 11, 1987

Institute of Nuclear Power Operations, OE 2473, "Drained Water from Spent Fuel Pools", March 16, 1988.

NRC Information Notice No. 88-21, "Inadvertent Criticality Events At Oskarshamn and At U.S. Nuclear Power Plants," May 9, 1988.

Sanford L. Israel, Reactor Systems Section, Nuclear Regulatory Commission, to Jack E. Rosenthal, Chief – Reactor Operations Analysis Branch, Nuclear Regulatory Commission, "Review of Mispositioned Equipment," March 17, 1994.

NRC Information Notice 94-75, "Minimum Temperature For Criticality," October 14, 1994.

Institute of Nuclear Power Operations, OE-7218, "Incorrect Fuel Assembly Moved During Examination", April 11, 1995.

Institute for Nuclear Power Operations, SER 15-95, "Spent Fuel Pool Liner Punctured by Dropped Equipment", June 22, 1995.

Institute for Nuclear Power Operations, OE 7443, "New Fuel Bundle Dropped in Spent Fuel Pool (SSES)", August 25, 1995.

Dinesh Saxena and George Stramback, General Electric Company, "Independent Assessment of Spent Fuel Pool Cooling at Millstone 1 Nuclear Power Station", GENE 523-A085-0895, August 31, 1995.

Donald B. Miller Jr., Senior Vice President – Millstone Station, to Nuclear Regulatory Commission, "Licensee Event Report 95-009-02," December 14, 1995.

Nuclear Regulatory Commission, Daily Event Report No. 29817, "Fuel Assembly was Discovered to be Suspended and Unattended (Since 12/14/95) in the [Oconee] Units 1 & 2 Spent Fuel Pool (SFP) Fuel Handling Bridge Mast," January 6, 1996.

Nuclear Regulatory Commission, Daily Event Report No. 30050, "Unanalyzed Heavy Load Path for Moving the Gates Outside the [Millstone 1] Spent Fuel Pool," March 1, 1996.

Nuclear Regulatory Commission, Headquarters Daily Report, "Unexpected Drop in Spent Fuel Pool Level," March 21, 1996.

W. J. Riffer, Director – Millstone Unit 1, Northeast Utilities, to Nuclear Regulatory Commission, "Licensee Event Report 93-011-02," July 25, 1996.

Jose G. Ibarra, Office for Analysis and Evaluation of Operational Data, Nuclear Regulatory Commission, Commission Briefing, "Assessment of Spent Fuel Pool Cooling," November 14, 1996.

Marvin W. Hodges, Director – Division of Reactor Safety, Nuclear Regulatory Commission, to Donald A. Reid, Vice President – Operations, Vermont Yankee Nuclear Power Corporation, "NRC Augments Inspection Team (AIT) Report No. 50-271/93-81," October 21, 1993.

A. Bill Beach, Regional Administrator, Nuclear Regulatory Commission, to John H. Mueller, Site Vice President, Zion Generating Station, Commonwealth Edison Company, "Notice Of Violation and Proposed Imposition Of Civil Penalties - \$330,000 (NRC Augmented Inspection Report 50-295/97006 and Inspection Reports 50-295/304-97002 and 50-295/304-97007)," September 2, 1997.

Nuclear Regulatory Commission, PNO-I-97-039, "Spent Fuel Pool Heatup," June 27, 1997.  
James C. Linville, Chief – Projects Branch 3, Nuclear Regulatory Commission, to Harold W. Keiser, Executive Vice President, Public Service Electric and Gas Company, "NRC Integrated Inspection Report 50-354/98-05 Notice of Violation," June 4, 1998.

Exhibit B

**LIST OF EXHIBITS TO ORANGE COUNTY'S SUMMARY AND SWORN  
SUBMISSION REGARDING CONTENTION TC-2**

1. Declaration of Dr. Gordon Thompson in Support of Orange County's Summary and Sworn Statement Regarding Contention TC-2 (January 4, 2000)
2. Letter from Brian K. Grimes of the NRC Staff to All Power Reactor Licensees (April 14, 1978)
3. Draft 1, Regulatory Guide 1.13, Revision 2, "Spent Fuel Storage Facility Design Basis (December 1981)
4. Memorandum from Laurence Kopp, NRC, to Timothy Collins, NRC, re: Guidance On The Regulatory Requirements For Criticality Analysis Of Fuel Storage At Light-Water Reactor Power Plants (August 19, 1998)
5. Letter from Donna B. Alexander, CP&L, to U.S. NRC, enclosing response to April 29, 199, RAI (June 14, 1999)
6. Transcript of Deposition of Michael J. DeVoe, P.E. (October 20, 1999)
7. AEC Press Release entitled "AEC seeking public comment on proposed design criteria for nuclear power plant construction permits" (November 22, 1965)
8. Internal AEC memorandum from G.A. Arlotto to J.J. DiNunno and Robert H. Bryan (October 7, 1966), and attached Revised Draft of General Design Criteria for Nuclear Power Plant Construction Permits (October 6, 1966) (relevant excerpts)
9. Letter from J J DiNunno, AEC, to David Okrent, ACRS (October 25, 1966), and attached October 20, 1966 draft of General Design Criteria (relevant excerpts)
10. Letter from J. J. DiNunno, AEC, to Nunzio J. Palladino, ACRS (February 8, 1967), and attached draft of General Design Criteria (relevant excerpts)
11. Note by the Secretary, W.B. McCool, to AEC Commissioners re: Proposed Amendment to 10 CFR 50: General Design Criteria for Nuclear Power Plant Construction Permits (June 16, 1967) (relevant excerpts)
12. Notice of proposed rulemaking for General Design Criteria, 32 Fed. Reg. 10,213 (July 11, 1967)
13. Letter from William B. Cottrell, ORNL, to H. L. Price, AEC (September 6, 1967) and enclosed ORNL comments on proposed GDC.

14. Letter from Edson G. Case, AEC, to Dr. Stephen H. Hanauer, ACRS (July 23, 1969), enclosing General Design Criteria for Nuclear Power Units (July 15, 1969) (relevant excerpts)
15. Memorandum from Edson G. Case, NRC, to Harold L. Price, et al., AEC, re: Revised General Design Criteria (October 12, 1970), and enclosed letter from Edward A. Wiggin, AIF, to Edson G. Case, NRC (October 6, 1970)
16. Final Rule, General Design Criteria for Nuclear Power Plants, 36 Fed. Reg. 3,255 (February 20, 1971)
17. Letter from Donna B. Alexander, CP&L, to U.S. NRC (October 15, 1999), enclosing letter from Scott H. Pellet, Holtec International, to Steven Edwards, CP&L (October 11, 1999)

UNITED STATES OF AMERICA  
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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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Northeast Nuclear Energy Company :   
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(Millstone Nuclear Power Station, :   
Unit No. 3) : ASLBP No. 00-771-01-LA

CERTIFICATE OF SERVICE

I hereby certify that copies of "Connecticut Coalition Against Millstone and Long Island Coalition Against Millstone Reply to Northeast Nuclear Energy Company's First Set of Interrogatories" in the above-captioned proceeding, have been served on the following by deposit in the United States Mail, first class, this 20th day of March, 2000.

David A. Repka, Esq.  
Winston & Strawn  
1400 L Street NW  
Washington DC 20005

Office of the Secretary  
U.S. Nuclear Regulatory Commission  
Washington DC 20555  
(Attn: Rulemakings and  
Adjudications Staff  
(original + two copies)

Adjudicatory File  
Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory  
Commission  
Washington DC 20555

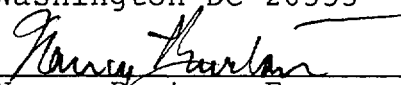
Office of Commission  
Appellate Adjudication  
U.S. Nuclear Regulatory Commission  
Washington DC 20555

Charles Bechhoefer  
Chairman  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory  
Commission  
Washington DC 20555-0001

Dr. Richard F. Cole  
Administrative Judge  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory  
Commission  
Washington DC 20555-0001

Dr. Charles N. Kelber  
Administrative Judge  
Atomic Safety and Licensing Board  
U.S. Nuclear Regulatory  
Commission  
Washington DC 20555-0001

Ann. P. Hodgdon  
Office of General Counsel  
U.S. Nuclear Regulatory  
Commission  
Washington DC 20555

  
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Nancy Burton, Esq.  
147 Cross Highway  
Redding Ridge CT 06876