

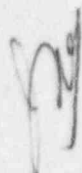


OFFICE OF THE
GENERAL COUNSEL

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

December 12, 1996

MEMORANDUM TO: Frank J. Miraglia, Jr., Acting Director
Office of Nuclear Reactor Regulation

FROM:  Jack R. Goldberg
Deputy Assistant General Counsel
for Enforcement

SUBJECT: 2.206 PETITION SUBMITTED BY NIRS AND CAN RE
CONNECTICUT YANKEE AND MILLSTONE UNITS 1,2 AND 3

On November 25, 1996, the Citizens Awareness Network (CAN) and the Nuclear Information and Resource Service (NIRS) (Petitioners) submitted a Petition pursuant to 10 C.F.R. § 2.206 to the Nuclear Regulatory Commission (NRC) requesting certain actions associated with the Connecticut Yankee and Millstone facilities of Northeast Utilities (NU). The Petition is being forwarded to your Office for the preparation of a response.

Petitioners allege that NU has, over the past decade, mismanaged its Connecticut nuclear facilities and operated them in flagrant disregard of NRC regulations; that NU has failed to fulfill its commitments to the NRC; that NU management had concrete particularized knowledge of serious on-going violations of NRC regulations culminating in material misrepresentations to the NRC; that regulatory oversight by the NRC to assure NU's compliance with NRC regulations has been a blatant and abject failure; and that the above failures have culminated in inconsistent and inaccurate Final Safety Analysis Reports at NU's Connecticut nuclear facilities thereby posing a significant safety concern for either continued plant operation or decommissioning.

The basis for these assertions are NU and NRC inspection results and NU documents referenced in the Petition, and a VHS video Exhibit, Exhibit A, which accompanied the Petition. Areas identified include surveillance testing, operation outside the design basis and degraded material condition. Petitioners assert that this information demonstrates that there are inadequate quality assurance programs at NU's Connecticut reactors, that NU has made material false statements regarding its Millstone reactors and that safe decommissioning of Connecticut Yankee is not possible given the defective nature of the design and licensing basis for this facility.

Petitioners request a number of actions including immediate suspension or revocation of NU's licenses to operate its Connecticut nuclear facilities; investigation of possible material misrepresentations by NU to the NRC; continued shutdown of the NU facilities until the Department of Justice completes its investigation and the results are reviewed by the NRC and until

Contact: Richard K. Hoefling
415-1690

the NRC evaluates and approves NU remedial actions; continued listing of the NU facilities on the NRC "watch list" should they resume operation; barring any pre-decommissioning or decommissioning activity at any NU Connecticut facility until certain identified steps are taken by NU and the NRC to assure that such activities can be safely conducted; and initiation by the NRC of an investigation into how it allowed the asserted illegal situation at NU's Connecticut reactors to exist and continue for over a decade.

I have attached the original Petition for your use. Please note the Petition includes a VHS tape as Exhibit A. Two copies of this tape were submitted by Petitioners and are attached. We suggest that you have copies of this tape made and provided to those offices on distribution for copies of the Petition.

I have also attached a draft of a letter of acknowledgement to the Petitioners and a draft of a Notice for publication in the *Federal Register*. As the Petition requests immediate action, the acknowledgement provides for Staff input addressing this issue.

If you wish to have the licensee respond to the Petition, we will assist your staff in preparing letters pursuant to 10 C.F.R. § 50.54(f).

As the Petitioners also suggest possible wrongdoing on the part of the NRC staff, a copy of the Petition is being provided to the Office of Inspector General.

Please insure that I am provided copies of all correspondence related to the Petition and that I am asked to concur on all staff correspondence.

Attachments: 1. Copy of Petition with two copies of VHS tape
2. Draft Letter of Acknowledgement
3. Draft *Federal Register* Notice

cc w/atts except VHS tape: M. Malsch, OGC
S. Burns, OGC
W. Olmstead, OGC
L. Chandler, OGC
G. Caputo, OI
H. Bell, IG
J. Lieberman, OE
H. Miller, RI
Regional Counsel, RI

ACTION

EDO Principal Correspondence Control

FROM:

DUE: 12/31/96
01/21/97

EDO CONTROL: G960919

DOC DT: 11/25/96

FINAL REPLY:

Deborah Booth Katz
Citizens Awareness Network

TO:

Emile Julian, DSB

FOR SIGNATURE OF :

** GRN **

CRC NO: 96-1189

DESC:

2.206 PETITION ON CONNECTICUT YANKEE, MILLSTONE
UNITS 1, 2, AND 3

ROUTING:

Taylor
Milhoan
Thompson
Blaha
Miraglia, NRR
HMiller, RI
Lieberman, OE

DATE: 12/06/96

ASSIGNED TO:

CONTACT:

OGC

Cyr

SPECIAL INSTRUCTIONS OR REMARKS:

NRR RECEIVED: DECEMBER 16, 1996

NRR ACTION: SPO: TRAVERS

NRR ROUTING: MIRAGLIA
THADANI
ZIMMERMAN
SHERON
TRAVERS
MARTIN
BOHRER

ACTION

DUE TO NRR DIRECTOR'S OFFICE

BY Dec 26, 1996

Extended to 01/09/97

OGC-96-005082

01/16/97

OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

PAPER NUMBER: CRC-96-1189 LOGGING DATE: Nov 29 96

ACTION OFFICE: EDO

AUTHOR: DEBORAH KATZ
AFFILIATION: MAINE

ADDRESSEE: EMILE JULIAN, SECY

LETTER DATE: Nov 25 96 FILE CODE: ID&R 5 MILLSTONE

SUBJECT: 10 CFR 2.206 PETITION ON CONNECTICUT YANKEE,
MILLSTONE UNITS 1,2 & 3

ACTION: Appropriate

DISTRIBUTION: CHAIRMAN, COMRS, OGC, D&SB

SPECIAL HANDLING: NONE

CONSTITUENT:

NOTES: 2.206 PETITION-- 2 ENCLOSED VHS TAPES TO EDO

DATE DUE:

SIGNATURE: DATE SIGNED:
AFFILIATION:

EDO -- G960919

November 25, 1996

Emile Julian, Esq.
Docketing & Service Branch
United States Nuclear Regulatory Commission
Washington, D.C. 20555

RE: 10 CFR 2.206 Petition on Connecticut Yankee, Millstone Units 1, 2, and 3.

Dear Mr. Bell

Enclosed please find the original and six copies of Citizens Awareness Network's and Nuclear Information and Resource Service's 10 CFR § 2.206 petition with two copies of a video tape marked 'Exhibit A' for service upon:

The Commission:

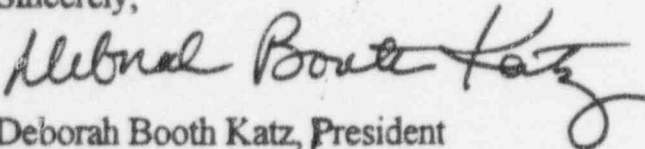
- Dr. Shirley A. Jackson, Chairman, USNRC
- Dr. Nils J. Diaz, Commissioner
- Ms. Greta Dicus, Commissioner
- Mr. Edward McGaffigan, Jr., Commissioner
- Mr. Kenneth Rogers, Commissioner

Executive Director for Operations:

- Mr. James Taylor, EDO, USNRC

Thank you for your kind attention to this matter.

Sincerely,



Deborah Booth Katz, President
Citizens Awareness Network

Enc..!

November 25, 1996

Mr. James Taylor,
Executive Director of Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555

**PETITION FOR ENFORCEMENT, PURSUANT TO 10 CFR § 2.206, TO
REVOKE NORTHEAST UTILITIES' OPERATING LICENSES FOR THE
CONNECTICUT NUCLEAR POWER STATIONS DUE TO CHRONIC,
SYSTEMIC MISMANAGEMENT RESULTING IN SIGNIFICANT
VIOLATIONS OF NRC SAFETY REGULATIONS, AND TO INVESTIGATE
THE NRC STAFF'S RESPONSIBILITY FOR NOT DEALING WITH THIS
PROBLEM FOR OVER A DECADE**

I SUMMARY RATIONALE FOR REQUESTED ACTIONS

In the interest of public health and safety, Citizens Awareness Network (CAN) and Nuclear Information and Resource Service (NIRS), petition the United States Nuclear Regulatory Commission (NRC), pursuant to 10 CFR § 2.206, to suspend or revoke Northeast Utilities' (NU) licenses to operate the Millstone Units 1, 2, 3, and Connecticut Yankee nuclear power stations due to over a decade of chronic, systemic mismanagement and violations of NRC regulations that have jeopardized occupational and public health and safety.¹

¹NU conducted an "in house" audit of the causes of the problems detailed in this petition. See Northeast Utilities System, *Event Response Team Report* (ACR 7007) (NRC Acc. No. 9603150021) (February 22, 1996). Until NU issued the report, the NRC took no definitive action to resolve the problems detailed therein, despite the blatant safety violations openly taking place on a daily basis for over 10 years!

II. REQUESTED ENFORCEMENT ACTIONS

A. Petitioners request that the NRC take the following actions to enforce its regulations against Northeast Utilities:

1. Petitioners request that the NRC immediately suspend or revoke Northeast Utilities' license to operate the Connecticut Yankee and Millstone nuclear reactors due to chronic, negligent management of the reactors which, for over a decade, has endangered and continues to endanger occupational and public health and safety and the environment due to resultant and cumulative major safety problems and violations of NRC regulations.
2. Petitioners request that the NRC investigate the possibility that NU made material misrepresentations to the NRC concerning engineering calculations and other information or actions relied upon to assure the adequacy of safety systems at Connecticut Yankee and Millstone reactors, said possible material misstatements due to a lack of rigor and thoroughness, or as a result of providing intentionally misleading information.
3. In the event that an investigation determines that Northeast Utilities deliberately provided insufficient and/or false or misleading information to the NRC, petitioners request that the NRC revoke Northeast Utilities' operating licenses for the Connecticut Yankee and Millstone Unit 1, 2 and 3 reactors. If the NRC chooses not to revoke the Northeast Utilities' licenses, the Petitioners specifically request that the reactors remain off-line until a United States Department of Justice independent investigation is complete and the NRC reviews conclusions and recommendations contained therein for potential consequences to the licensee and its agents under NRC regulations.²

²The Department of Justice report will likely produce information essential to the NRC's evaluation of NU's management problems. Such information should have a direct effect upon any NRC decision concerning NU's future operation of nuclear reactors in Connecticut.

4. In the event that the NRC chooses not to revoke Northeast Utilities' license to operate Connecticut Yankee and the Millstone Unit 1, 2, and 3 reactors and allows the reactors to return to operation, petitioners request that the reactors remain on the NRC "watch list" to oversee reactor operations until such time as NU management demonstrates to the NRC's satisfaction that:
 - a. NU is able to fulfill NRC regulatory requirements;
 - b. NU has met all prior commitments concerning the repair, modification, maintenance, and documentation of the nuclear power stations;
 - c. NU has retrained all staff in the application and interpretation of NRC's regulations; and
 - d. NU has removed from any positions of responsibility for operation and/or management of the reactors any and all persons whom the Department of Justice, NRC, or other government investigators and/or civil or criminal prosecutions find to have made material misrepresentations to the NRC during the past decade of mismanagement.
5. The Petitioners request that, at a minimum, the NRC keep Connecticut Yankee and the Millstone Units 1, 2, and 3 nuclear reactors off-line until the NU's chronic mismanagement has been analyzed, remedial management programs put into effect, and the NRC has evaluated and approved the effectiveness of the licensee's actions. At a minimum, this should entail:
 - a. A thorough analysis of root causes for deficiencies in NU's FSARs, documentation for licensing and design basis, safety analyses, engineering, quality assurance, ALARA programs, and other necessary or required documentation;
 - b. Creation of a complete, accurate, updated FSAR--mere "reform" is impossible when the basic document is inadequate and inaccurate;

- c. Re-evaluation of any of NU's activities initiated under (or which NU should have initiated under) 10 CFR § 50.59 in order to confirm the validity of such activities, particularly to determine the extent to which the updated FSAR does not match "as built" reactor configurations. This requires more than a mere paper audit, and necessitates a component-by-component and system-by-system check of the actual physical plant against the existing documentation, and the creation of correct documentation where it is lacking and/or inadequate;
- d. Institution and documentation of an effective ALARA review for all operational and non-operational activities which expose or potentially expose workers and/or the public to radiation;
- e. Thorough documentation of the root causes of NU's chronic and systemic mismanagement--including documentation of the NRC Region I inspection program's staff and management failures over the past decade to detect and deal with this problem;
- f. That NU demonstrates, over a substantial period of time to the satisfaction of the NRC, NU's commitment to respect NRC regulatory requirements and consistently put them into practice;
- g. NU retrains all personnel involved in day-to-day operations so that they are thoroughly conversant with NRC regulations;
- h. Updating and documentation of Plant Design Changes Requests to include all changes to the reactor's design, and that these design changes are verified by the NRC staff, with close-outs of PDCRs receiving the highest priority;

- B. Petitioners request that, in the event that NU decides to shut-down any or all of the nuclear power reactors at issue herein with the intent to commence the decommissioning process, the NRC does not permit any decommissioning or pre-decommissioning activity to take place until such time as:
1. All of the documentation mentioned above is available to the NRC and on-site at the reactors;
 2. All personnel involved in the decommissioning process have been retrained (or trained) in the use and interpretation of the applicable NRC regulations contained in Title 10 of the Code of Federal Regulations;
 3. The NRC appropriately evaluates, replaces personnel, and restructures the NRC Region I inspection program, its management and the supervising NRC directorate to eliminate the regulatory anarchy that plagued the Connecticut nuclear reactors during the past ten years;
 4. The NRC makes certain that NU does not employ any persons in management or operations who made material misrepresentations to the NRC about the status of operations, repairs, modifications, or maintenance of NU's Connecticut reactors.
- C. Petitioners request that the NRC commences an investigation into how it allowed the illegal situation at NU's Connecticut reactors to exist and continue for over a decade. Particularly, petitioners request that the Commission orders its staff (directors of the responsible directorates, managers, Region I management and staff) to answer the following questions, and hold these persons accountable for their answers and actions regarding the past 10 years at NU's Connecticut nuclear power reactors:
1. What documents did Region I inspectors, their supervisors, and NRC directorate oversight review during ten years of NU's out-of-compliance operation?

2. If NU provided documents that somehow deceived the Region I inspectors, how does the information in these documents relate to the actual everyday workings and activities conducted during the otherwise undocumented decade of operations at the Millstones and Connecticut Yankee?
3. How did Region I inspectors, their supervisors, and NRC directorate oversight find that NU was conducting operations in a way that keeps worker and public exposures to radiation As Low As Reasonably Achievable (ALARA) when NU was not adequately documenting either its licensing bases or the basis of reactor operations?
4. Knowing, as Region I inspectors must have known, of excessive worker exposures--for example, due to a long standing problem with leaking pipes as documented by an NU worker in the video tape provided with this petition Exhibit 'A'--how did the Region I inspectors certify that operations at the Millstones and Connecticut Yankee were being conducted ALARA? How did their supervisors, and those in the NRC directorate, make the same certifications?
5. During the undocumented decade, how did Region I inspectors, their supervisors, and NRC directorate oversight manage to track NU's activities at the Millstones and Connecticut Yankee under 10 CFR § 50.59?
6. To what extents have NRC Region I inspectors, their supervisors, and NRC directorate oversight allowed the same type of problems to develop at other nuclear power reactors in New England (i.e., Maine Yankee, Pilgrim, Seabrook, Vermont Yankee, and Yankee Rowe)?
7. Is there any connection between licensees employing Yankee Atomic Electric Company's consulting and engineering services and the existence of serious problems with documentation and lack of compliance with licensing and design bases at any New England area nuclear power stations or those in other parts of the country?

III RATIONALES FOR REQUESTED ACTIONS

For the past decade, NU mismanagement of the Millstone and Connecticut Yankee nuclear power stations has compromised the health and safety of workers and the public by subjecting them to increased risks of radiation exposure and the uncertainties of actual exposures on a daily basis, as well as subjecting them to an increased risk of death and illness during and following a major nuclear accident. During that period of time, NU has operated the Connecticut nuclear power stations in flagrant disregard of fundamental NRC regulations designed to assure that workers and the public are adequately protected from such risks. NU violated NRC regulations, despite a continuing responsibility to assure the safety of the most vulnerable members of the public (i.e., citizens living near the reactors, within the effluent pathways, and all those within a fifty mile radius of the reactors), protect NU workers, and safeguard its own assets (as a fiduciary obligation to its shareholders).

Over and over, during the decade of mismanagement, NU promised NRC Region I inspectors, their supervisors, and NRC directorate oversight that it would fulfill its obligations under NRC's regulations. NU's unfulfilled commitments--in writing, orally, and even under oath--include, but are not limited to, promises that NU would: (1) correct mistakes in reports and procedures, (2) correct mechanical and engineering deficiencies, (3) repair or replace equipment, (4) maintain and/or upgrade safety systems, (5) conduct

engineering and documentation evaluations under 10 CFR § 50.59 to justify tests, modifications, experiments, or changes made to any portion of the Connecticut reactors, and (6) maintain complete and proper documentation on the required safety systems of the reactor, its general operation, and technical specifications. These acts and omissions are, at a minimum, violations of 10 CFR § 50.4, § 50.5, § 50.59 and § 50.71.

Safe operation of a reactor necessitates that a licensee (such as NU) maintain a properly documented and completely updated Final Safety Analysis Report (FSAR), and routinely conduct full engineering and documentation reviews, pursuant to 10 CFR § 50.59 on proposed changes, tests, or experiments conducted in the course of any and all operations. *See, e.g.,* 10 CFR § 50.4, § 50.59, § 50.71. The implications of failing to meet such basic requirements are staggering.

The effectiveness of multiple back-up safety systems which the NRC requires of licensees under the "defense in depth" program approach, and basic assumptions relied upon in every probabilistic risk assessment (PRA) utilized to predict the degree of assurance provided by such safety systems, are swept away like a house of cards when a licensee (such as NU) operates without adequate documentation. This is more than mere paper shuffling. If it were just a matter of giving NU a bit more time to gather papers, the Commission could let NRC Region I take the usual casual approach.

However, the Region I casual approach to auditing operations at NU facilities permitted NU over a decade of operating and profiting from its Connecticut nuclear power stations without adequate evidence that operations met NRC regulations. A lack of documentation directly translates into a continuous elevated risk of radiation exposure to NU workers and the public, an unknown and yet to be determined amount of increased radiation exposure to workers, and a continuing risk that a combination of operator error and safety system failure will result in a major nuclear accident.

NU's Event Response team told NU, as the NRC now knows, that during the past decade NU did not maintain the required documentation at the Millstone Unit 1 nuclear station. The NRC has since learned of the same shoddy practices at the other Millstone reactors and Connecticut Yankee (Haddam Neck). This is a large part of the reason why petitioners have requested the NRC to take immediate action to halt all operations at the Millstone facilities until the required documentation is on file. NU's Event Response team told NU that:

Most of the engineers and managers contacted during [the Event Response Team analysis] (individuals who should be well-versed in design control requirements) have not read Title 10 of the Code of Federal Regulations [NRC Regulations], Regulatory Guides, or ANSI Standard pertinent to design control. There is a general lack of understanding and appreciation of the relationship and implications between 10 CFR 50, design basis (50.2), licensing basis, industry codes, and NU's administrative programs controlling configuration and design [of reactor operations].

Event Response Team, *Executive Summary* at 11 (emphasis added). The Event

Response team report also states that:

Internal correspondence and events involving the design basis [e.g. NOVs, DERs, LERs] from 1985 through 1996 show a pattern of information communicated to NU management. This information consistently identified weaknesses and risks associated with the UFSAR [updated FSAR] and design basis.

Id. at 2 (emphasis added). This means that NU management had concrete particularized knowledge of serious on-going violations of NRC regulations. The Event Response Team Report further states that:

NU management made commitments on the docket to correct these deficiencies. The actions [of NU management] were ineffective, partially implemented, or not done.

Id. (Emphasis added). This means that although NU management had concrete, particularized knowledge of serious on-going safety violations of NRC regulations, it either acted ineffectively or did nothing at all. Therefore, it is axiomatic that when NU management knowingly led the NRC to believe that NU was taking effective action to come into compliance, or was in compliance with NRC safety regulations, NU was making material misrepresentations to the NRC, misrepresentations directly related to the safe management, maintenance, inspection, repair and operation of the Connecticut Yankee and Millstone facilities under the terms and conditions of NRC's license to NU to operate these nuclear power stations. Over and above all the underlying violations

of other portions of 10 CFR part 50 leading up to them, in and of themselves, such material misrepresentations violate NRC regulation 10 CFR §50.5 (deliberate misconduct), §50.54 (conditions of license), §50.55a(a)(1) (requirement to meet codes and standards), and §50.71(e) (requirement to update FSAR and maintain §50.59 documentation). Although NU merely intended that the Event Response Team Report would identify problems at Millstone Unit 1, the Report stated that:

The long term pattern of decisions and actions [at Millstone Unit 1] has generic implications for Connecticut Yankee and Millstone Units 2 and 3. A sample of internal and external assessments and design events (e.g., LERs) for Units 2 and 3 and Connecticut Yankee, supports the potential for generic implications.

Id. at 8 (emphasis added). The Report goes on to state that the Team needed more data from each of the NU licensed facilities mentioned in order to determine the "full extent of the implications." *Id.* Thus, NU's own investigative team, without even having a complete picture of the extent to which the problems at Millstone Unit 1 apply to other NU operated nuclear reactors, recommended that NU should "conduct a verification effort similar to the Millstone Unit 1 effort for Millstone Units 2 and 3 and Connecticut Yankee." *Id.* at 9.

Beyond the efforts that the NRC has already taken to try to deal with the problems described in NU's in-house report, the Commission needs to direct its independent panel to examine each of the NOVs, DERs, and LERs over the past decade

to determine the actual physical status and documentation for all of the problems (and any of the changes, modifications, tests) at all of the Millstones and Connecticut Yankee, as well as the rest of the New England reactors--certainly any in which NU has an interest, as well as those serviced by NU's primary engineering contractors and consultants--and probably all of the nuclear power stations inspected by Region I.³

This petition calls upon the Commission to face reactor licensee violations more pervasive and serious than any previously confronting the NRC. Not only do the decade-long, serious, chronic, systemic mismanagement problems at the Millstone and Connecticut Yankee nuclear power stations require action against NU, but the Commission must confront its own chronic, systemic failure to enforce its regulations. Specifically, the blatant, abject failure of regulatory oversight by the NRC NRR directorate management and staff, NRC Region I management, staff, inspectors, and other NRC administrators, management, and staff in failing to assure NU's compliance with NRC regulations.

³Petitioners believe, as does the NRC, that NU's Connecticut problems may have infected other nuclear power reactors in New England. See S. Varga, Director NRC Division of Reactor projects, Letter to G. Cheney (NRC Acc. No. 9610090036) (October 7, 1996). It is not clear to what extent the company-side problems are strictly the responsibility of NU, or should be shared by any and all of the various consultants and contractors utilized by NU--such as Stone and Webster Engineering and Yankee Atomic Electric Company. Likewise, the NRC needs to take stock of all of the nuclear power stations under the inspection regime of NRC Region I, as well as those persons at headquarters to whom Region I reports, because Region I allowed NU to get away with dangerous, flagrant violations of NRC regulations for over 10 years!

In the event that the NRC determines that the root causes of Northeast Utilities' chronic, systemic mismanagement of its Connecticut nuclear reactors has jeopardized public health and safety, petitioners have requested the revocation or suspension of Northeast Utilities' licenses to operate these facilities until such time as the NRC Commissioners have reviewed and approved the recommendation of an independent panel appointed by the Commission that unequivocally recommends re-licensing or lifting the suspension.

In the event that the NRC determines that its staff (NRR, Region I, and any other NRC personnel involved) has systematically failed to enforce regulations, not carried out inspections which assured the completion of documentation, repairs, upgrades, maintenance, ALARA reviews and procedures, and any activities which licensees promised to accomplish pursuant to regulation or best practices, petitioners have requested that all such personnel be permanently removed from any positions involving oversight authority in reviewing, directing, supervising or carrying-out the NRC's regulatory requirements.

The bottom line on the failures of NU and NRC inspections described in this petition and the video Exhibit attached hereto is that these failures culminate in NU's Connecticut nuclear power stations having inconsistent and inaccurate Final Safety Analysis Reports.

The updated FSAR is the essential document for safe reactor operations. The FSAR demonstrates licensee compliance with NRC regulatory requirements by documenting all changes to a reactor from construction through operations and for the duration of the license. Along with the Technical Specifications, the FSAR provides a working blueprint against which a licensee may compare the day-to-day condition of the facility. This allows the licensee to be relatively certain that the reactor is operating safely, and efficiently plan for continued safe operation. By documenting modifications and repairs to a reactor, the FSAR allows a licensee to determine the need for additional design modifications and plan for necessary repairs and maintenance. In this way, the FSAR provides managers and engineers with a guide to determine how to retrain the work force. By encapsulating the history of physical modifications, repairs, and maintenance, the FSAR also protects workers from unnecessary exposure to radiation. It does this by providing a guide for licensees during the planning and reviewing process necessary to implement the NRC's mandatory ALARA standards in 10 CFR part 50 and Appendix I.

Because the FSAR is the blueprint which documents the history of changes to a reactor and its operation, consistent, timely updating is absolutely essential.

The updated FSAR allows the licensee to maintain knowledge of the current condition of reactor operations, make information accessible to reactor staff, and allows staff to effectively handle both routine operations and abnormal events.

In the absence of an updated and accurate FSAR, nuclear power station managers, engineers, staff, employees and contractors lack information on how the reactor systems and components operate together. Changes occurring in the reactor design become difficult, if not impossible, to determine, and require case-specific investigation based upon inherently unreliable sources: individual, anecdotal memory. Likewise, absent an adequate, updated FSAR, discovering the impacts of design changes upon other systems requires such time-consuming, case-specific investigation. Under emergency conditions, it would be impossible for operators, engineers, and staff to immediately access the exact cause of a problem or understand the conditions they would find when attempting to make emergency repairs. A time-consuming, case-specific investigative process confronts staff precisely at the moment of crisis, when time is of the essence to avoid catastrophe.

A deficient FSAR prevents a licensee from adequately training and retraining workers. By having different and conflicting updates of the FSAR, workers may respond to the wrong condition or at a wrong location, leading to confusion and conflict in addressing both standard operation and abnormal occurrences. To the

extent that the deficient FSAR forces workers to rely on inherently unreliable anecdotal knowledge, such conflicts multiply as different managers, engineers, and operators recall different versions of what was done, where, how, and by whom. In an emergency situation, under these conditions, coordinated efforts by personnel are exceedingly difficult if not impossible.

Clearly, the anecdotal, case-by-case scenario for problem solving increases the likelihood of unnecessary worker exposure to radiation. Personnel cannot practice a "lessons learned" approach to problems under such conditions. The possibility of personnel conducting ALARA analyses is completely compromised under such conditions. Absence of an updated FSAR forces workers to constantly reinvent the wheel whenever problem situations confront them in areas of radioactive contamination. This directly translates into workers routinely exposed to higher doses of radiation than they would incur under proper ALARA practices.

Finally, and most significantly, absence of a properly updated FSAR forces the nuclear power station operators and other staff to function in a constant reactive or "crisis" mode. The result is personnel exercising poor judgment, suffering from excess stress, and making inferior decisions. This translates into higher employee absenteeism, higher turn-over, and lost experience. In this way, the demands placed upon operators and staff by the necessity of maintaining a high level of scrutiny of

worn and out-dated components and systems in an aging reactor are compound by the problems created when attempting to conduct operations with a deficient FSAR. Ultimately, under such conditions, engineers will find it more and more difficult to effectively calculate and set conservative limits on already deteriorating systems. This way, the process of deterioration will accelerate, eventually spiraling out of control.

- **Workers' and the public's health and safety are in constant jeopardy when the NRC allows licensees to operate nuclear reactors without an updated FSAR.**
- **Absent an updated, accurate FSAR, NRC inspectors have no way to determine that a reactor is in compliance with regulations and technical specifications.**

For these reasons, and in order to avoid the anarchic situations described above, the NRC makes a licensee's commitments to maintain an accurate and updated FSAR (and other necessary documentation) binding, legal requirements under NRC regulations:

Each person licensed to operate a nuclear power reactor pursuant to the provisions of Sec. 50.21 or Sec. 50.22 of this part shall update periodically, as provided in paragraphs (e) (3) and (4) of this section, the final safety analysis report (FSAR) originally submitted as part of the application for the operating license, to assure that the information included in the FSAR contains the latest material developed. This submittal shall contain all the changes necessary to reflect information and analyses submitted to the Commission by the licensee or prepared by the licensee pursuant to Commission requirement since the submission of the original FSAR or, as appropriate, the last updated FSAR. The updated FSAR shall be revised to include the effects of: all changes made in the facility or procedures as described in the FSAR; all safety evaluations performed by the licensee either in support of requested license amendments or in support of conclusions that changes did not involve an unreviewed safety question; and all analyses of new safety issues performed by or on behalf of the licensee at Commission request. The updated information shall be appropriately located within the FSAR.

(1) The licensee shall submit revisions containing updated information to the Commission, as specified in Sec. 50.4, on a replacement-page basis that is accompanied by a list which identifies the current pages of the FSAR following page replacement.

(2) The submittal shall include (i) a certification by a duly authorized officer of the licensee that either the information accurately presents changes made since the previous submittal, necessary to reflect information and analyses submitted to the Commission or prepared pursuant to Commission requirement, or that no such changes were made; and (ii) an identification of changes made under the provisions of Sec. 50.59 but not previously submitted to the Commission.

(3)(i) A revision of the original FSAR containing those original pages that are still applicable plus new replacement pages shall be filed within 24 months of either July 22, 1980, or the date of issuance of the operating license, whichever is later, and shall bring the FSAR up to date as of a maximum of 6 months prior to the date of filing the revision.

....
(4) Subsequent revisions shall be filed no less frequently than annually and shall reflect all changes up to a maximum of 6 months prior to the date of filing.
....

10 CFR § 50.71(e)(emphasis added). The rule makes patently clear the NRC's concern (and requirement!) that licensees have both updated FSAR and §50.59 analyses on hand.

- **Without an updated FSAR in place, NRC staff had (and have) no basis for determining whether NU was in compliance with its technical specifications and NRC safety regulations.**

Thus, to the extent that NU failed to provide, and NRC staff failed to demand, an up-to-date and accurate FSAR for the Millstones and Connecticut Yankee, the NRC staff permitted NU to operate the reactors out of compliance with technical specifications and in violation of crucial NRC safety regulations.

Recent NRC action has taken some initiative in attempting to isolate NRC Region I from a continuing role overseeing inspections of NU's nuclear facilities in Connecticut. While this is a beginning, it is hardly comforting to members of CAN and NIRS living throughout New England, where NRC Region I has supposedly been

inspecting other nuclear power stations. What assurance, if any, is there that NRC Region I has been vigilant outside Connecticut when it has so totally failed to do its job there?⁴

The Commission needs to conduct an audit of all NRC Region I inspections and NRC headquarters oversight of these inspections during the past decade to see if there are the same type of negligent inspection practices throughout NRC Region I as those documented in Connecticut and Maine.⁵ Moreover, to date, the licensee's responses

⁴See S. Varga, Letter to G. Cheney, *supra*, note 3.

⁵See NRC, *Independent Safety Assessment of Maine Yankee Atomic Power Company* at 1, 74 (October 7, 1996). Both the ISA and Office of the Inspector General found, in separate investigations, that NRC and its Region I inspection program were deficient in regulatory oversight of Maine Yankee for more than a decade. In its conclusions to the ISA report, the Team recommended that the NRC inspection program should be reviewed in the following areas:

- the licensee-implemented testing programs for safety systems relative to its scope, rigor, and analyses of results
- the periodic review of licensee developed Technical Specification interpretations to assure consistency with the intent of the approved Technical Specifications
- assessment of the adequacy of the plant design-basis including a review of the disposition of significant findings from previous licensee efforts such as design-basis documentation or design-basis reconstitution programs

Id. at 74. The striking similarities between the length and depth of the NRC's Maine Yankee problems and solutions, and the problems at the Connecticut nuclear reactors are a bit too close to pass off as mere coincidences. Clearly, the NRC needs to undertake some major housecleaning in order to assure that it is adequately protecting workers at NRC Region I reactor sites and the citizens living in reactor communities. Naturally, if the problems with NRR and NRC Region I are due to mismanagement, economic pressure, and other problems endemic to NRC programs,

have been insufficient. DERs, inspection reports, and other documents--as petitioners illustrate below--show an increasing number of serious problems emerging at an alarming rate. This means that NU has failed to address the root causes of the problems at the Millstones and Connecticut Yankee, and is merely attempting a cosmetic fix. To do the job right, the NRC must initiate a full-scale independent analysis of all reactor systems at NU's Connecticut facilities.

Even if NU decides to permanently close one of these nuclear reactors--as likely it will do with Connecticut Yankee--without such a massive audit and re-documentation, it would be unsafe to attempt to disassemble any portion of a nuclear power station. This is because an updated FSAR provides a blueprint for safe decommissioning. The same applies to the licensee having complete, accurate, and up-to-date 10 CFR §50.59 documentation. Absent these documents, there are no "specs" for a nuclear power station. No meaningful ALARA analysis and review can take place. Thus, decommissioning workers could easily receive extremely serious radiation exposures by entering highly contaminated areas of the plant, attempting to remove the wrong component, or attempting to undertake decontamination activities in a highly contaminated section of the facility. Furthermore, and fundamentally, without the

the problems "uncovered" at the Connecticut and Maine nuclear power stations probably exist at most of the nuclear power stations under NRC regulatory authority.

proper documentation, workers have no way of knowing how the nuclear power station was put together, so they cannot possibly take it apart safely.

The NRC must determine the root causes of such chronic, systemic mismanagement, because the recognized deficiencies presage potential widespread mismanagement compromising safe reactor operation. This applies with no less force to the same deficiencies in NRC regulatory oversight. The lack of documentation, inaccuracies in existing documents, and other serious lapses have occurred over decades, making it difficult to verify system compliance--whether one looks at the individual nuclear reactors at issue here, or the NRC Region I inspection program as a whole.

The NRC ordered a Connecticut Yankee shutdown because NU was operating the reactor outside technical specifications. The NRC's shutdown decision followed a series of NRC inspections and reportable event occurrences [documented in DERs] at the reactor. Among other safety problems, the inspections uncovered serious weaknesses and inaccuracies in NU's documentation for operating Connecticut Yankee, particularly NU's failure to maintain an accurate and completely updated Final Safety Analysis Report [FSAR]. The same problem existed at Millstone Unit 1; where NU's own in-house evaluation team found that management and engineering personnel were

not familiar with the NRC safety regulations contained in Title 10 of the Code of Federal Regulations.

The NU evaluation team also reported that Millstone Unit 1 management carelessly or knowingly neglected to follow-through on mandatory commitments to the NRC staff to assure that particular repairs, modifications, and documentation of changes to the reactor were actually taking place. The same NU evaluation team raised serious questions about mismanagement of Millstone Units 2, 3, and Connecticut Yankee.

IV. CHRONIC, SYSTEMIC PROBLEMS AT NU'S CONNECTICUT REACTORS

Petitioners contend that NU's Connecticut nuclear power reactors do not exhibit substantial improvement, despite NU's recent efforts to get them back on line. Management and operation at NU's Connecticut reactors continue to be dangerous, substandard, and generally outside NRC's regulations, as the examples cited herein illustrate. Petitioners believe that NU's admitted decade-long failure to maintain an updated FSAR for each reactor facility epitomizes the seriousness of the current state of affairs at the Connecticut reactors.

Petitioners have assembled but a few of the incredibly numerous inspection reports, internal review documents, and licensee event reports for each of NU's Connecticut reactors. These documents raise serious concerns about the management

and operation of Connecticut Yankee and the Millstone Units I, II, & III nuclear power stations. In a letter to T. Feigenbaum, Chief Nuclear Officer for NU, William Russell, then NRC Director of Nuclear Reactor Regulation stated:

The team identified a number of significant deficiencies in the engineering calculations and analysis relied upon to ensure the adequacy of the design of key systems at Haddam Neck [Connecticut Yankee]. In some cases, design-basis calculations and analyses were not sufficient to confirm that the safety system functional requirements would be met. Some of these errors were long-standing, while others were recently introduced.... Deficiencies were identified in the calculations and analyses supporting the station batteries, the emergency diesel generators..., containment air recirculation ... system, service water ... system, and in the combination of systems and components needed to support the emergency cooling system ... transfer from the injection phase to sump recirculation.

....

These deficiencies revealed significant weaknesses in the defense-in-depth principles that the NRC relies on to ensure nuclear power plant operation does not jeopardize the health and safety of the public. The team concluded that weaknesses in your configuration management processes and a lack of technical rigor, thoroughness, and attention to detail in the design process, either contributed to or directly caused the identified errors. In addition, design control measures such as supervisory reviews, independent design reviews, and reviews by oversight committees did not identify these deficiencies.

Inspection Report 50-213/96-201(emphasis added). The team identified several errors in the updated Final Safety Analyses Report (UFSAR) which reflected 'programmatic weakness in the process for maintaining the accuracy and consistency of the

information in the UFSAR. The team also found instances where NU's managers did not meet commitments to the NRC:

The team found several instances involving the failure to identify, evaluate, and correct conditions adverse to quality and some instances in which planned corrective actions were not promptly initiated. In some instances the delays in initiating planned corrective actions were significant because the actions included the evaluation of the potential generic implications of these issues for other plant systems and equipment.

Id. (Emphasis added). The inspection report goes on to note that the February 22, 1996, Event Response Team Report found process issues at Connecticut Yankee⁶ similar to those identified at Millstone 1:

[T]he team found that calculations did not exist to support some of the design-bases and the administrative control programs at Haddam Neck [Connecticut Yankee] had not maintained an accurate UFSAR....

⁶These problems were not new to either NU or the NRC. *See generally*, J. F. Opeka, NU, Letter to T. Martin, NRC Region I (NRC Accession No. 9407130157) at 1,2 (July 5, 1994). During the first half of 1994, John F. Opeka, Executive Vice President, Connecticut Yankee Atomic Power Company (CYAP), had been exchanging letters with Thomas Martin, then Regional Administrator for NRC Region I, attempting to explain prior inaccurate statements concerning service water system problems. *Id.* These statements included: (1) reference to an "engineering evaluation" which Mr. Opeka subsequently admitted was really only a few "related informal discussions" and one engineer's statement that he would provide the welding department with any pipe needing replacement, (2) reference to testing of a weld when it was only subject to "visual" inspection, and (3) reference to all degraded welds being solely in the first nine feet of piping, when, in fact, "all 22 welds inspected (at that time) were degraded to some extent." *Id.* In Mr. Opeka's opinion these utter mischaracterizations were merely overstatements or "not accurate" or "could have been more clear." *Id.* Incredibly, it took two inspection reports and three letters before the NRC finally received this "clarification" from Mr. Opeka.

[L]icensee management oversight did not identify and address the patterns of corrective action program implementation problems.... 'a general lack of understanding and appreciation for the relationship between 10 CFR 50, design-bases, licensing bases, industry codes, and NU's administrative programs existed.'

Id. (emphasis added). Discussing Connecticut Yankee, NRC's Director of Division of Reactor Projects told NU that:

The discovery by design engineering that the service water piping supplying cooling water to the CAR fans would not remain functional under accident conditions was an example of an issue for which the design basis for the plant had not been thoroughly reviewed or understood.

R. Cooper II, NRC, letter to T. Feigenbaum, NU (September 12, 1996)(emphasis added).

Other design basis issues discussed in the report included the reliance on high containment back pressure to assure reliable performance of the residual heat removal (RHR) system under postulated accident conditions and the adequacy of the containment sump screens to limit debris from entering the safety systems. These issues adversely impact the operability of emergency core cooling systems, thus undermining "defense in depth" against a core melt-down and the ensuing catastrophic release of radioactivity into the environment. The report identified these ultimate safety concerns as but two "apparent" violations of technical specifications.

A. Inadequate Surveillance Testing⁷

MP1 DER 30821 (08/01/96) involving inadequate NPSH for the RHR pump during the long term cooling phase of an accident. The intent of the surveillance testing program for safety related equipment is to assure that these components will fulfill their required functions in an emergency. This DER demonstrates that the MP1 surveillance testing program was deficient.

MP2 DER 31196 (10/22/96) involving non-conservative reactor trip setpoints. The purpose of the surveillance testing program for safety related instruments is to assure that these components will perform as assumed in accident analyses. This DER demonstrates that the MP2 surveillance testing program was deficient and the plant safety analyses were invalid.

MP2 DER 30393 (05/01/96) involving a 32" x 9" hole (roughly the size of a large doggie door) in the auxiliary building wall near the spent fuel pool. This deficiency, reported as having existed for some time, demonstrates a significant deficiency in the surveillance testing program. Ignoring the fact that one might reasonably be expected to notice a gaping 32" x 9" hole, the auxiliary building is intended to be a radiologically controlled area and as such is subject to periodic testing. The auxiliary building is, or should have been, pressure tested to confirm that all releases are controlled and filtered as necessary. Such testing, had NU conducted it properly, should have detected problems reflective of a gaping hole.

MP3 31052 (09/24/96) involving nuclear instrumentation high power reactor trip testing not conforming to design and licensing bases assumptions. The intent of the surveillance testing program for safety related instruments is to assure that these components will perform as assumed in accident analyses. This DER demonstrates that the MP3 surveillance testing program was deficient and the plant safety analyses were invalid.

⁷In the following subsections, MP1, 2, 3 refer to the Millstone reactors, CY refers to the Connecticut Yankee (Haddam Neck) reactor. 'DER' refers to licensee Daily Event Reports to the NRC.

B. Operating Outside Design Bases

MP1 DER 30821 (08/01/96) involving inadequate NPSH for the RHR pump during the long term cooling phase of an accident. This deficiency, apparently existing for years, meant that the reactor core would not have maintained adequate cooling following an accident. Since the RHR pumps also provide suppression pool cooling (containment cooling), this deficiency could also cause containment failure following an accident.

MP2 DER 31167 (10/16/96) involving flooding of the emergency diesel generator rooms through a common, connected floor drain line. This deficiency, apparently existing since the plant initially started up, represents a potential failure mechanism for all of the emergency diesel generators. Many other licensees, during the course of their Appendix R fire protection evaluations or in response to the Surry pipe rupture event in 1984, identified common floor drain line vulnerabilities such as reported in this DER. This DER demonstrates that the operational experience review program, mandated by the NRC following the TMI accident, is inadequate at Millstone.

MP2 DER 31085 (10/03/96) involving improper setting of the steam generator safety relief valves. This deficiency, apparently existing since the plant initially started up and made worse by the steam generator replacements, represents the potential for over pressurizing the steam generators, thereby invalidating the assumptions that a single tube rupture would not propagate. This DER demonstrates, among other things, that Millstone's design modification process is deficient because NU replaced the steam generators without detecting the existing problem or recognizing that the new steam generators would make the problem worse.

MP2 DER 30350 (04/23/96) involving a single failure that could render the enclosure building ventilation system inoperable. Plant safety analyses assume that one of the two redundant ventilation paths functions to filter containment releases. This deficiency, apparently existing for considerable time, challenges that assumption.

MP3 DER 31081 (10/02/96) involving a spent fuel pool design problem that could cause loss of spent fuel pool cooling after a seismic event. The NRC issued NRC Information Notice No. 93-81 in October 1993 alerting licensees to potential loss of spent fuel pool cooling following design bases events. This DER demonstrates that Millstone's operational experience review program, mandated by the NRC following the TMI accident, is inadequate.

MP3 DER 31062 (09/26/96) involving potential failure of 21 safety related air operated valves on loss of power causing diversion of safety injection flow and possible pump run-out. NRC Bulletin 88-xx specifically requires licensees to review the performance of safety related components for loss of instrument air. This DER demonstrates that Millstone's response to this NRC bulletin is less than adequate.

MP3 DER 31008 (09/16/96) involving failure of the safety related charging system if instrument air is lost. The charging system performs the essential function of core cooling following an accident. NRC Bulletin 88-xx specifically requires licensees to review the performance of safety related components for loss of instrument air. This DER demonstrates that Millstone's response to this NRC bulletin is less than adequate.

MP3 DER 30976 (09/06/96) involving failure of 37 solenoid valves upon failure of non-safety related air pressure regulators. The DER states that the solenoid valves effect many safety systems including the charging system and both the high and low pressure safety injection systems. NRC Bulletin 88-xx specifically requires licensees to review the performance of safety related components for loss of instrument air. This DER demonstrates that Millstone's response to this NRC bulletin is less than adequate.

C. Degraded Material Condition

CY DER 30945 (08/31/96) involving a pin hole leak in the RHR heat exchanger inlet isolation valve. Following a design basis loss of coolant accident, the RHR piping containing this isolation valve extends the reactor coolant pressure boundary outside primary containment. This identified integrity loss provides a pathway for radioactive material to bypass primary containment in the event of an accident.

MP3 DER 30897 (08/20/96) involving fouling of the containment re-circulation system heat exchangers by debris. The DER states that the fouling was thought to have occurred the previous month when system flow was increased to maximum. This DER demonstrates the potential failure of all components cooled by service water if the strainers and other protective measures have not been adequately designed to withstand maximum service water flow, as this DER apparently indicates. This potential may also apply to MP1 and MP2.

D. Problems Continuing at Connecticut Yankee After Shutdown

CY DER 31126 (10/09/96, 10/21/96) involving a 30-inch longitudinal crack on the water supply line to the spent fuel pool heat exchanger and a bad weld on a 6-inch service water return line from the spent fuel pool heat exchanger. The purpose of the supply line is described in this way:

The spent fuel pit cooling system removes residual heat from the spent fuel stored in the pit. The spent fuel pit pumps draw water from the pit, circulate it through a heat exchanger and return it to the pit. There are two spent fuel pool heat exchangers, a shell and tube type and a plate type. The plate heat exchanger has a greater heat removal capacity than the shell and tube heat exchanger.

Section 9.1.3.2 of the Connecticut Yankee Updated Final Safety Analysis. This DER raises the concern that the material condition of the system used to cool the irradiated fuel in the Connecticut Yankee (Haddam Neck) spent fuel pool may have degraded to the point that it is less likely to withstand the loadings imposed by a seismic event. In fact, the identified problems indicate that the material condition of the piping may have degraded to the point where it may be vulnerable to rupture under normal thermal and dead-weight loadings.

NRC Inspection Report 50-213/96-201 stated that the NRC's special investigation team into problems at Connecticut Yankee (Haddam Neck) found deficiencies which "revealed weaknesses [in systems] that the NRC relies on to ensure nuclear power plant operation does not jeopardize the health and safety of the public." *Id.* The team concluded that "weaknesses in your configuration management processes and a lack of technical rigor, thoroughness, and attention to detail in the design process, either contributed to or directly caused the identified errors." *Id.*

This inspection report in conjunction with recent de-staffing activities at Connecticut Yankee (Haddam Neck) raises the concern that appropriate safety margins may not exist or be maintained at the facility. NU's managers did not correct the weaknesses in the configuration management processes and the inattention to detail during the design process prior to the Configuration Management Project team disbanding. Consequently, there may not be a solid technical foundation to support prudent decisionmaking at this facility, particularly as both the NRC and NU continue to reallocate resources to the Millstone and Seabrook reactors.

E. Inadequate Quality Assurance Programs

Collectively, the documents summarized above provide persuasive evidence that the Quality Assurance programs at NU's Connecticut reactors are significantly flawed. NRC regulations at 10 CFR part 50, Appendix B, require NU to have Quality Assurance programs that assure maintenance of the original design bases and safety margins. These QA requirements include provisions for testing, auditing, configuration management, and design control. NU must develop an "effective" QA program. "Effective" means meeting the NRC's Appendix B requirements.

F. Material False Statements

The NRC issued 50.54(f) letters to NU in the spring of 1996, concerning all three Millstone nuclear power stations. NU maintained that the Millstone nuclear power stations met all applicable design and licensing bases requirements. The DERs cited above demonstrate that such statements were false at the time NU made them, and in some cases, have been false since the initial start-ups of the Millstone reactors. The same concerns apply to Connecticut Yankee.

G. Decommissioning And Design/Licensing Basis Deficiencies

The new NRC decommissioning rules will allow Connecticut Yankee (Haddam Neck) to conduct all of its major decommissioning activity under 10 CFR §50.59. To

safely conduct activities under §50.59, the licensee must have its design and licensing bases in order. At a minimum, this means having an updated FSAR, and updated, accurate Technical Specification for any of the nuclear power stations which NU may decide to decommission.

The problem is that Connecticut Yankee's design and licensing bases are so defective that no one can really perform a valid §50.59 safety analysis. During the better part of 1996, staff and management at Connecticut Yankee were in the process of rebaselining the design and licensing bases in order to provide reasonable assurance to the NRC that it was safe to permit the reactor to restart. Despite the licensee's feverish activity, the NRC's special Inspection Report of July 31, 1996, documented extremely serious deficiencies in the areas of design and licensing bases. Thus, NU had not even come close to resolving these problems when it announced the shutdown of Connecticut Yankee and began drastic reductions in staffing levels at the reactor.

The point is that if the NRC decided that NU lacked sufficient knowledge of the licensing and design bases for staff and management at Connecticut Yankee to be able to safely restart the reactor, NU plainly does not have sufficient information to conduct decommissioning under 10 CFR §50.59 as the new rules allow. The same problem would, of course, apply were NU to attempt to shutdown and begin decommissioning at any of the other Connecticut reactors. Wherever deficiencies in the licensing and

design basis exist, safe decommissioning under §50.59 is not possible without adequate licensing and design bases.

V. ABOUT THE PETITIONERS

Citizens Awareness Network (CAN) is a non-profit, public interest group with members located near the Yankee Rowe reactor in Massachusetts, the Vermont Yankee reactor in Vernon, Vermont, the Connecticut Yankee and Millstone reactors in Connecticut, and the Seabrook reactor in New Hampshire. CAN is concerned with the entire nuclear fuel cycle from mining uranium, through operating nuclear power reactors, to establishing sites for disposal of radioactive waste. CAN represents citizens in many communities that experience the economic, environmental, and health impacts of the uranium fuel cycle. Since 1991, CAN has participated in a variety of NRC proceedings, including NRC hearings on reactor embrittlement and decommissioning, rulemakings, workshops, and adjudicatory hearings.

Nuclear Information and Resource Service (NIRS) is a nonprofit membership organization dedicated to providing information and assistance to people concerned about the effects of nuclear power, radioactive waste, and renewable energy alternatives to nuclear power. NIRS membership is world-wide, including Connecticut residents whose health and safety are a priority of this petition. Since 1978, from its headquarters in Washington, DC, NIRS has, among other activities, participated in nuclear regulatory affairs, including rulemakings, enforcement actions, and administrative and judicial adjudications on the regulation and licensing of particular nuclear power stations.

VI CONCLUSION

For the forgoing reasons, petitioners ask the United States Nuclear Regulatory Commission to grant this petition by immediately commencing: (1) enforcement action, as detailed above, against Northeast Utilities, and (2) an investigation, as detailed above, of the role of the NRC directorate management and staff (NRR), and Region I management and staff in permitting NU to operate its Connecticut nuclear power stations out of regulatory compliance for over a decade.

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