

Date: December 7, 1998.

Jonathan M. Block, Esquire
Main Street
P.O. Box 566
Putney, VT 05346-0566

Dear Mr. Block:

I am responding to a Petition of May 27, 1998, which you submitted to the U.S. Nuclear Regulatory Commission (NRC) on behalf of the Citizens Awareness Network, Inc. (CAN or Petitioner). Petitioner requests that the NRC take immediate enforcement action by suspending the operating license for the Vermont Yankee Nuclear Power Station, operated by the Vermont Yankee Nuclear Power Corporation, until the entire facility has been subjected to an independent safety analysis review similar to the one conducted at the Maine Yankee Atomic Power Station. As an alternative, Petitioner requests that the NRC immediately act to modify the operating license for the facility by requiring that before restart (1) Vermont Yankee management certify under oath that all backup safety systems and all security systems are fully operable and that all safety systems and security systems meet and comply with NRC requirements; (2) Vermont Yankee be held to compliance with all of the restart criteria and protocols in the NRC [Inspection] Manual; (3) Vermont Yankee only be allowed to resume operations after the NRC has conducted a "vertical slice" examination of the degree to which the new design-basis documents (DBDs) and Final Safety Analysis Report (FSAR) accurately describe at least two of the primary safety systems for the Vermont Yankee reactor; (4) once operation resumes, Vermont Yankee only be allowed to continue operation for as long as it adheres to its schedule for coming into compliance and completing the DBD and the FSAR projects; and (5) the NRC hold a public hearing to discuss the changes to the torus, the Vermont Yankee DBD and the FSAR projects and Vermont Yankee's scheduled completion of these projects in relation to operational safety.

By letter dated June 9, 1998, you renewed your requests for relief on the basis of an event occurring on June 9, 1998, at Vermont Yankee and reported by the licensee in Daily Event Report (DER) 34366. This event involved the automatic shutdown of the reactor because of problems in the feedwater system.

On July 6, 1998, the staff of the NRC acknowledged receiving your Petition and stated that pursuant to 10 CFR 2.206 of the Commission's regulations, your Petition was being referred to me for action and that it would be acted upon within a reasonable time. You were also informed that there was insufficient evidence to conclude that a substantial public health and safety hazard existed that warranted the immediate action you requested.

The NRC staff has evaluated the information provided by the Petitioner as its basis for the actions requested. The NRC has been closely monitoring events at Vermont Yankee and has taken numerous actions to ensure that there is no undue risk to public health and safety. The Petition did not contain any significant new information about safety issues. The NRC already knew of the events, inspection reports, and concerns presented in support of the Petition.

Neither the information presented in the Petition nor any other information of which the NRC is aware warrants the actions you requested. Accordingly, your requests for action are denied for the reasons contained in the enclosed Director's Decision. A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 CFR 2.206(c). As provided by this regulation, the Decision will constitute the final action of the Commission 25 days after its issuance, unless the Commission, on its own motion, institutes a review of the Decision within that time. The documents cited in the Decision that are not commercially available are available for review at the Local Public Document Room for Vermont Yankee located in the Brooks Memorial Library, 224 Main Street, Brattleboro, VT 05301.

I have also enclosed a copy of the notice of "Issuance of Director's Decision Under 10 CFR 2.206," which contains the complete text of DD-98- . This notice is being filed with the Office of the Federal Register for publication.

Sincerely,

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Docket No. 50-271

Enclosures: 1. Director's Decision
2. Federal Register Notice

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Neither the information presented in the Petition nor any other information of which the NRC is aware warrants the actions you requested. Accordingly, your requests for action are denied for the reasons contained in the enclosed Director's Decision. A copy of this Decision will be filed with the Secretary of the Commission for the Commission to review in accordance with 10 CFR 2.206(c). As provided by this regulation, the Decision will constitute the final action of the Commission 25 days after its issuance, unless the Commission, on its own motion, institutes a review of the Decision within that time. The documents cited in the Decision that are not commercially available are available for review at the Local Public Document Room for Vermont Yankee located in the Brooks Memorial Library, 224 Main Street, Brattleboro, VT 05301.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION
Samuel J. Collins, Director

In the Matter of)	Docket No. 50-271
)	
VERMONT YANKEE NUCLEAR POWER)	License No. DPR-28
CORPORATION)	
)	
(Vermont Yankee Nuclear Power Station))	(10 CFR 2.206)

DIRECTOR'S DECISION PURSUANT TO 10 CFR 2.206

I. INTRODUCTION

By a Petition submitted pursuant to 10 CFR 2.206 on May 27, 1998, Mr. Jonathan M. Block, on behalf of the Citizens Awareness Network, Inc. (CAN or Petitioner), requested that the U.S. Nuclear Regulatory Commission (NRC) take immediate action with regard to the Vermont Yankee Nuclear Power Station operated by the Vermont Yankee Nuclear Power Corporation (licensee or Vermont Yankee). By letter dated June 9, 1998, Petitioner supplemented the Petition.

In the Petition of May 27, 1998, the Petitioner requested that the NRC take immediate enforcement action by suspending the operating license for the Vermont Yankee facility until the entire facility has been subjected to an independent safety analysis review similar to the one conducted at the Maine Yankee Atomic Power Station. As an alternative, the Petitioner requested that the NRC immediately act to modify the operating license for the facility by requiring that before restart in June 1998 (1) Vermont Yankee management certify under oath that all backup safety systems and all security systems are fully operable and that all safety systems and security systems meet and comply with NRC requirements; (2) Vermont Yankee

be held to compliance with all of the restart criteria and protocols in the NRC [Inspection] Manual; (3) Vermont Yankee only be allowed to resume operations after the NRC has conducted a “vertical slice” examination of the degree to which the new design-basis documents (DBDs) and Final Safety Evaluation Report (FSAR) accurately describe at least two of the primary safety systems for the Vermont Yankee reactor; (4) once operation resumes, Vermont Yankee only be allowed to continue operation for as long as it adheres to its schedule for coming into compliance and completing the DBD and the FSAR projects; and (5) the NRC hold a public hearing to discuss the changes to the torus, the Vermont Yankee DBD and FSAR projects, and Vermont Yankee’s scheduled completion of these projects in relation to operational safety.

By letter dated June 9, 1998, Petitioner renewed its requests for relief on the basis of an event occurring on June 9, 1998, at Vermont Yankee and reported by the licensee in Daily Event Report (DER) 34366. This event involved the automatic shutdown of the reactor because of problems in the feedwater system. The Petitioner stated that this event indicated a lack of reasonable assurance that safety-related systems at Vermont Yankee will perform adequately.

On July 6, 1998, the Director of the Office of Nuclear Reactor Regulation informed the Petitioner that he was denying the request for immediate suspension or modification of the operating license at Vermont Yankee, that the Petition was being evaluated under 10 CFR 2.206 of the Commission's regulations, and that action would be taken in a reasonable time. In that letter, the Director also denied Petitioner’s request for a public hearing.

On July 9, 1998, in accordance with established staff guidance for reviewing 10 CFR 2.206 Petitions, the NRC requested that the licensee address the concerns raised in the Petition and the need to perform the actions requested by the Petitioner. The licensee responded by letter dated September 14, 1998, and the information provided by the licensee

was taken into consideration by the NRC staff.

The NRC staff's review of the Petition and its supplement is now complete. For the reasons set forth below, the Petitioner's remaining requests are denied.

II. BACKGROUND

In support of these requests, the Petitioner raised concerns about the operation of the Vermont Yankee facility, including challenges to the single-failure criterion, inadequate safety evaluations, potential over-reliance on Yankee Atomic Electric Company analyses, an inadequate operational experience review program, high potential for other serious safety problems, and lack of adequate perimeter security. The Petitioner also attached four documents prepared by the Union of Concerned Scientists (UCS). One UCS document, dated May 14, 1998, provided a review of Vermont Yankee DERs made over the previous year as requested by CAN. These DERs are verbal reports made by licensees under 10 CFR 50.72 to the NRC and put in written form by the NRC. Another UCS document, dated January 29, 1998, was addressed to the NRC Region I Senior Allegation Coordinator; it discussed a specific concern with NRC DER 33545 of January 15, 1998, associated with Vermont Yankee water hammer effects on certain systems. The third document, a UCS letter dated May 5, 1997, to the NRC Chairman and Commissioners, discussed mislocated fuel bundle loading errors. The final UCS document attached was titled "Potential Nuclear Safety Hazard Reactor Operation With Failed Fuel Cladding," dated April 2, 1998. In the supplement to the Petition of June 9, 1998, Petitioner asserted that the event on June 9, 1998, at Vermont Yankee indicated a lack of reasonable assurance that safety-related systems at Vermont Yankee will perform adequately.

Many of the DERs have been generated as a result of the licensee's ongoing review of Vermont Yankee design-basis information, and the following is a brief history describing this effort. On October 9, 1996, the NRC issued a request for information to licensees pursuant to

10 CFR 50.54(f) regarding the adequacy and availability of design-basis information. The purpose of this request was to provide the NRC with added confidence and assurance that nuclear plants are operated and maintained within the design bases and any deviations are reconciled in a timely manner. This request was necessary on the basis of NRC's findings during inspections and reviews that identified broad programmatic weaknesses that have resulted in design and configuration deficiencies at some plants, including Millstone. The licensee responded by letters dated February 14 and March 11, 1997, stating that although its overall performance in the areas of design and configuration control was sound, it would undertake a series of actions designed to provide improved configuration management. These actions included developing and implementing a design-basis documentation program and an FSAR verification program. The DBD program at Vermont Yankee was initiated in the fall of 1996. The NRC staff evaluated the licensee's response and determined that subsequent inspection in this area was necessary. From May 5 through June 13, 1997, the NRC staff performed an architect/engineer (A/E) inspection, Inspection Report (IR) 50-271/97-201, to evaluate the capability of selected systems to perform the safety functions required by their design bases, as well as the adherence of the systems to their respective design and licensing bases, and the consistency of the as-built configuration and system operations with the FSAR. The NRC team concluded that the systems evaluated were capable of performing their intended safety functions; however, some concerns (apparent violations of NRC requirements) were identified. IR 50-271/97-10 documented the NRC follow-up inspection completed in November 1997 and provided the Notice of Violations (NOVs) associated with the concerns noted in the A/E report. On March 2, 1998, an enforcement conference was held with the licensee to discuss the apparent violations of NRC requirements identified in the A/E inspection. The licensee responded to the NOVs by letter dated May 14, 1998, and the NRC will continue to evaluate the adequacy of the licensee's corrective actions during future inspections, currently

expected to be completed by the end of 1998.

The licensee's DBD program has identified numerous design-basis issues, many of which required reporting under 10 CFR 50.71, 10 CFR 50.72, and/or 10 CFR 50.73. In the NRC's systematic assessment of licensee performance (SALP) for the period January 19, 1997, through July 18, 1998, issued on August 28, 1998, the NRC staff found that the licensee's program to review and document the plant's design basis has been rigorous, as evidenced by the number and significance of the issues identified during the development and validation of the system DBDs. The NRC staff considers that the number and significance of the issues, some of which required reporting, demonstrate a desirable situation in which problems are identified and resolved.

The matters raised in support of Petitioner's requests are discussed below.

III. DISCUSSION

A. Evaluation of Plant Operation With Deficiencies

Petitioner titled this section "Single-Failure Criterion Challenged," but the discussion focused on the cumulative effect of deficiencies at Vermont Yankee. Petitioner states that Vermont Yankee's volume of longstanding deficiencies in safety-related equipment strongly suggests that the single-failure criterion may have been violated. In support of this statement, reference is made by the Petitioner to an evaluation of Vermont Yankee DERs by the UCS dated May 14, 1998. Petitioner also states that it was not able to find any evidence that Vermont Yankee considered the impact of the cumulative effect of concurrent degraded conditions on the safety margin of the plant.

Appendix A to 10 CFR Part 50 gives a definition of the single-failure criterion. The capability to withstand a single failure is a consideration in the design of nuclear power plants. For example, General Design Criterion 35 for emergency core cooling systems in Appendix A to

10 CFR Part 50 states that suitable redundancy in components and features shall be provided to assure that the system safety function can be accomplished, assuming a single failure.

Technical specification requirements must be met. A deficiency in a safety system, including deficiencies in which the capability to withstand a single failure is lost, is to be evaluated by licensees and treated as a degraded and nonconforming condition. A prompt determination of operability is to be made by licensees. For any deficiency, including those in which the capability to withstand a single failure is lost, licensees must evaluate the deficiency and, if the deficiency affects the design-basis requirements for the particular plant, correct the deficiency in accordance with 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action. The NRC has issued guidance regarding resolution of deficiencies in the form of Generic Letter (GL) 91-18, Revision 1, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded or Nonconforming Conditions." The guidance in Vermont Yankee's corrective action program is consistent with the NRC's guidance in GL 91-18. Identified deficiencies are evaluated by the licensee in accordance with the licensee's corrective action program, which meets the requirements of 10 CFR Part 50, Appendix B. If required by 10 CFR 50.71, 50.72, and/or 50.73 the deficiency is reported to the NRC.

NRC regulations do not explicitly require an integrated assessment of deficiencies. If a deficiency cannot be immediately corrected, the licensee evaluates the acceptability of continued operation consistent with the NRC guidance in GL 91-18. A determination of operability is needed for each deficiency.

The NRC staff requested and the licensee provided an integrated assessment of items that were scheduled for final resolution after the spring 1998 outage by letters to the NRC dated May 1 and May 28, 1998. IR 50-271/98-06 documented the NRC's review of the licensee's letter of May 1, 1998, and concluded that the licensee's actions to resolve the outstanding items, as they pertain to restart of the plant following the spring 1998 refueling outage, have

been appropriate. No concerns were identified by the NRC staff regarding the operability determinations, compensatory actions, or corrective actions, as documented in IR 50-271/98-06.

In summary, deficiencies at Vermont Yankee are entered in the licensee's corrective action program which meets the requirements of 10 CFR Part 50, Appendix B. The acceptability of continued operation with outstanding deficiencies is evaluated using the NRC guidance in GL 91-18. The NRC has been aware of the events and deficiencies referred to by the Petitioner as the basis for its concern. The staff assessed the DERs and concluded an appropriate response would be to inspect licensee activities. The results of the NRC review are documented in NRC inspection reports. For example, NRC IR 50-271/98-06 documented the NRC's inspection of the licensee's engineering and technical support for operations as they pertain to the licensee's process for evaluating deficiencies and determining the acceptability of continued operation with the deficiency. No concerns were raised with regard to operability determinations, compensatory actions, or corrective actions. No additional NRC actions were deemed necessary in this area.

B. Inadequate Safety Evaluations

Petitioner states that there is evidence that the Vermont Yankee licensee performed inadequate safety evaluations required by 10 CFR 50.59 and listed DERs 31906, 31949, 32106, and 34005 as examples.

The licensee stated in its response of September 14, 1998, to the Petition that the examples cited are similar in that their cause can be traced to the difficulty in quickly retrieving the specific design-basis information in the time period available to determine system operability. Had the design bases been readily retrievable, it is unlikely that these issues would have constituted a condition requiring reporting. The licensee has recognized the need to upgrade the DBDs and is currently performing this action, as previously discussed.

In Inspection Report 50-271/98-12, the NRC reviewed the four event reports listed by the Petitioner as examples of inadequate safety evaluations at Vermont Yankee. DER 34005 was found to not involve an inadequate safety evaluation. In this case, the licensee was not able to immediately retrieve a necessary design-basis calculation for the anticipated transient without scram (ATWS) mitigation system. Subsequently, the licensee found that the calculation had been performed by their fuel vendor and was in fact available. The licensee retracted that event report due to the retrieval of this calculation. DERs 31906, 31949 and 32106 were each partially a result of inadequate design-basis information being available. This led to safety evaluations in support of modifications to plant RHR system operating procedures and installation of fire protection hardware that were erroneously found acceptable. The licensee notified the NRC of these three conditions in March and early April 1997.

At the time of discovery, the licensee was implementing their Individual Plant Examination of External Events (IPEEE) program. This special review revealed errors in both the original design of the plant, as well as weak documentation of certain design bases that led to the prior acceptance of these plant vulnerabilities to external event initiated internal flooding events. The licensee appropriately reported these conditions to the NRC and took necessary corrective actions to remove the identified vulnerabilities. Since the conditions had not occurred that were necessary to exploit these plant vulnerabilities, such as a seismic event, no adverse safety consequences were realized even though the plant had operated outside of the design bases.

The Licensee Event Reports (LERs) associated with DERs 31906, 31949 and 32106 (LER 50-271/96-012 and 50-271/97-004, respectively) were reviewed by the NRC in Section E8.3 of IR 50-271/97-10. In that report, the NRC concluded that the licensee's root cause analyses and corrective actions were acceptable and that these issues met the criteria for handling as non-cited violations per Section VII.B.3, "Old Design Issues," of the NRC

Enforcement Policy.

Subsequent to the licensee notifying the NRC of these events, the NRC performed two major engineering/design inspections at the Vermont Yankee plant. The A/E team inspection in June 1997, concluded that there were weaknesses in the design control process; but, that the licensee was to address these deficiencies in their Configuration Management Improvement Project. In the engineering team follow-up inspection of November 1997, the NRC concluded that the licensee had strengthened its design bases documentation validation process as a result of the lessons learned from the A/E inspection. Further, the NRC found that the licensee had adjusted the depth and breadth of its validation inspection using the Safety System Function Inspection techniques, similar to those used in the A/E team inspection, and concluded that its validation efforts should produce results similar to the A/E team review. The inspection results also included a number of findings, some of which were design bases control violations that resulted in a Civil Penalty issued in April 1998.

In response to the Civil Penalty, the NRC determined that the licensee's corrective actions were sufficient to identify and resolve existing design bases errors. As a result of the licensee's comprehensive corrective actions, the NRC concluded that no additional measures were warranted for the design bases concerns at Vermont Yankee. The NRC will continue to monitor and assess the licensee's progress in completing their proposed corrective actions as part of the regular inspection process for follow-up to identified violations.

The NRC has recently assessed the licensee's performance in the area of safety evaluation as documented in IR 50-271/98-80 issued on July 16, 1998. The NRC reviewed the licensee's procedural guidance for the safety evaluation program to assess that program against the latest guidance contained in NRC Inspection Manual 9900 and the regulatory requirements of 10 CFR 50.59. In addition, selected safety screenings and safety evaluations were reviewed. Although some deficiencies were noted, neither the deficiencies noted in the

report, nor the examples referenced in the Petition constitute a condition warranting further extensive inspection in this area. The licensee's corrective actions for the deficiencies noted in IR 50-271/98-80 will be evaluated during future inspections.

C. Potential Over-Reliance on Yankee Atomic Electric Company Analyses

Petitioner states that there is evidence that the Vermont Yankee licensee has been relying upon Yankee Atomic Electric Company (YAEC) to conduct engineering analyses, and there is a potential that Vermont Yankee may have the same kind of serious compromises in safety systems that existed at other facilities that relied upon YAEC's engineering analyses. Petitioner refers to an NRC demand for information (DFI) to YAEC regarding information needed by the NRC to determine whether enforcement action should be taken against YAEC to ensure future compliance, on the part of NRC licensees, with NRC requirements. DERs 31915, 32106, 33259, 33502, and 34145 were listed by the Petitioner as those that may have involved analyses by YAEC. Petitioner requested that the NRC suspend Vermont Yankee's license to operate until assurance can be obtained that all analyses that YAEC prepared for Vermont Yankee have been reviewed by the NRC staff to ensure that they have been performed properly.

The NRC staff acknowledges that YAEC performed many engineering analyses for Vermont Yankee.

The serious compromises (according to the Petitioner) in safety systems that existed at other facilities that relied upon YAEC's engineering analysis to which the Petitioner refers originated with an allegation involving YAEC's analyses performed for Maine Yankee Atomic Power Company (MYAPCo). A letter dated December 1, 1995, from the UCS contained an anonymous allegation that certain analyses performed by YAEC for MYAPCo were flawed. A number of investigations and technical reviews were initiated, and the NRC issued a DFI to

YAEC and Duke Engineering & Services, Inc. (DE&S),¹ in December 1997. The DFI required an explanation why the NRC should permit any NRC licensee to use the services of YAEC and/or DE&S to perform loss-of-coolant accident (LOCA) analyses or any safety-related analyses to meet NRC requirements. The DFI was issued on the basis of NRC's concerns regarding specific inadequacies in small-break LOCA analyses provided by the YAEC LOCA Group to MYAPCo that caused MYAPCo to be in violation of NRC requirements. DE&S responded on February 27, 1998, to the NRC's DFI regarding continued engineering services to nuclear utilities. The response provided a detailed description of the reviews that had been conducted and the associated findings. NRC subsequently issued violations to MYAPCo on October 8, 1998.

After review of the complete record in this matter, the NRC staff concluded that the actions taken by the YAEC LOCA Group caused MYAPCo to be in violation of Commission requirements in a number of areas, but that these actions did not result from willfulness on the part of DE&S and/or YAEC employees.² The staff further concluded that the corrective actions accomplished and planned, as discussed in the DE&S response to the DFI, provide a basis for reasonable assurance that in the future, the NRC and licensees can rely upon DE&S to provide complete and accurate information and that DE&S is willing and able to otherwise conduct its activities in accordance with the Commission's requirements. Therefore, the NRC staff determined that no further enforcement action shall be taken against YAEC or DE&S regarding the actions of the LOCA Group of concern in the DFI.

In reaching these conclusions, the NRC staff considered the entire record of

¹ DE&S acquired portions of YAEC, including the YAEC LOCA Group, in December 1997.

² The NRC staff addressed its final conclusions regarding the SBLOCA analysis violations at Maine Yankee in the NOV issued to MYAPCo on October 8, 1998. The NRC staff's conclusions regarding the provision of LOCA analyses or other safety-related analyses to NRC licensees by YAEC and/or DE&S are discussed in letters to YAEC and DE&S dated October 8, 1998.

investigations and technical reviews that resulted in part or in whole from the allegation of December 1995. The broader implication of the allegation, beyond the specific analysis performed for Maine Yankee, suggested cause for concern in two areas. First, there was a concern regarding the adequacy of LOCA analyses provided to other NRC licensees, including Vermont Yankee, by the YAEC LOCA Group. Secondly, it also suggested cause for concern regarding the adequacy of other safety-related analyses performed by the Yankee Nuclear Services Division of YAEC on behalf of NRC licensees to demonstrate compliance with Commission requirements.

Regarding the first concern, in May 1996 the NRC staff audited the LOCA analyses provided to Vermont Yankee by the YAEC LOCA Group. This review also incorporated a concern regarding the conditions and events leading to Vermont Yankee's LER No. 96-010 dated May 9, 1996.³ The review concluded that the analyses performed by the YAEC LOCA Group for Vermont Yankee were consistent with the conditions on the use of the RELAP5YA code for Vermont Yankee as specified in the staff's safety evaluations for the code dated August 25, 1987, and October 21, 1992. Note that the RELAP5YA code was a BWR version and was different than the Maine Yankee version, a pressurized water reactor version. Since the staff's approval of the use of the code, the staff found that the code had been transferred to a different computer operating system and that the fuel behavior package had been modified.

³ LER 96-010 was associated with an inadequate design/single failure evaluation during a design change. The NRC staff found that the plant-specific analysis had failed to consider the limiting single-failure scenario. This issue was addressed by the staff in an NOV and Proposed Imposition of Civil Penalty - \$50,000, dated August 23, 1996. The staff concluded that this violation resulted from ineffective communications between the plant operations staff and the YAEC safety analysts, resulting in failure to identify the fact that the safety analysis assumptions were not consistent with the plant configuration. In its response to the DFI, DE&S noted that ineffective communication between YAEC, MYAPCo, and the NRC also played an important role in the assumptions of all parties regarding the demonstration of compliance with the technical requirements of 10 CFR 50.46. DE&S identified corrective actions to clearly define and formally document regulatory and organizational interface requirements with its nuclear clients to prevent recurrence of the communication and organizational responsibility uncertainties that contributed to the events described in the DFI.

The staff reviewed these changes and concluded that approved quality assurance procedures were followed throughout the code modifications.

Regarding the second concern, the Independent Safety Assessment (ISA) of MYAPCo conducted in the summer of 1996 evaluated non-LOCA safety-related analyses performed by YAEC on behalf of MYAPCo. As stated in the ISA report dated October 7, 1996, the ISA concluded that conditions of approval in NRC safety evaluations were met in the use of selected analytic codes for performing non-LOCA safety-related analyses, but that weaknesses in documentation and validation represented vulnerabilities that warranted licensee attention. The ISA also concluded that cycle-specific core performance analyses were excellent, but that weaknesses were found in more complicated, less frequently performed analyses. These weaknesses did not cause the analyses results to exceed the facility design and licensing bases. In its response to the DFI, DE&S described corrective actions, including strengthened personnel training; formal documentation of organizational roles, responsibilities, and communication requirements; and independent assessment to provide management with direct feedback on the compliance of work process, practices, and products. These corrective actions address the weaknesses identified by the ISA in documentation, validation, and the conduct of complicated, infrequently performed analyses.

In its letter of September 14, 1998, the Vermont Yankee licensee indicated that the conclusions reached on the basis of the reviews conducted give confidence that the analyses performed by YAEC on Vermont Yankee's behalf are of high quality. The Vermont Yankee licensee reviewed the concerns raised by the DFI for potential impact on Vermont Yankee. The licensee indicated that an independent technical assessment of specific analyses performed for Vermont Yankee was conducted and stated that the assessment identified no significant technical errors. The licensee did not uncover any reason to suspect the quality or the accuracy of engineering analyses performed by YAEC for Vermont Yankee.

On the basis of the results of several NRC staff investigations and technical reviews, the NRC staff has concluded that the violations associated with the SB LOCA analyses provided to MYAPCo by the YAEC LOCA Group were isolated. LOCA analyses and other safety-related analyses provided to NRC licensees by YAEC and/or DE&S, including the LOCA Group, have generally been found to be in compliance with NRC requirements. Therefore, the actions requested by the Petitioner are not necessary.

With respect to future work by DE&S, weaknesses or vulnerabilities identified during these reviews are being addressed by DE&S. Therefore, the NRC staff has concluded that there is no basis for taking action against DE&S and/or YAEC to prevent them from providing safety-related analysis services to NRC licensees, nor to take action against NRC licensees, including Vermont Yankee, to prevent them from using the engineering services provided by YAEC and/or DE&S.

D. Inadequate Operational Experience Review Program

Petitioner states that there is evidence that strongly suggests that the Vermont Yankee licensee does not have an adequate operational experience review program and listed DERs 31923, 32016, and 33789 as examples of inadequacy and violation of NRC regulations.

Petitioner states that an inadequate operational experience review program leads to “compromised engineering conservation in safety systems, and the eventual failure of such systems during a serious emergency event.”

The licensee acknowledges that weaknesses have been identified in the reviews of industry operation experiences in that reviews were not always timely and some opportunities to learn from industry operating experiences were sometimes missed. A task force was developed to address the weaknesses.

The NRC assessed licensee performance in this area on September 6, 1997, and documented the findings in IR 50-271/97-06. The NRC concluded that the previous

weaknesses identified in the licensee's operating experience review process had been appropriately addressed through implementation of a new administrative procedure. This report also stated that a selected sample of recently dispositioned items identified that a proper review of the individual concerns had been made and that closure of the individual concerns had been achieved.

In IR 50-271/98-12, the NRC reviewed the three event reports listed by the Petitioner as examples that the licensee does not have an adequate operational experience feedback (OEF) review program. On March 10, 1997, DER 31923 was identified as a result of the licensee's IPEEE program. The licensee determined that the root cause of this event was an inadequate initial design. Related to this cause was an inadequate flood design bases. This contributed to the licensee's failure to identify this concern during earlier design studies, including those in response to NRC Information Notices on similar events in the industry. The licensee's IPEEE program was a very detailed and intrusive review that questioned design basis assumptions. Due to the scope of that review, this concern as well as several other flooding design concerns were discovered by the licensee. The root cause and corrective actions for this event were described in LER 50-271/97-002. This LER was previously reviewed in Section E8.3 of IR 50-271/97-10. In that report, the NRC concluded that the licensee's root cause analyses and corrective actions were acceptable and that this issue met the NRC Enforcement Policy for handling as a non-cited violation per Section VII.B.3, "Old Design Issues."

DERs 32016 and 33789 were found to be related. The earlier of these two events was discovered on March 25, 1997, as a result of the licensee's operational experience feedback review of an event report by LaSalle on February 21, 1997. After this initial discovery, the licensee took appropriate corrective measures to ensure that the standby gas treatment system would not be operated in a configuration that could lead to failure of the system during a design basis accident. The licensee prematurely removed the corrective actions, which resulted in a

second event with the standby gas treatment system operated in a configuration that could lead to failure. The NRC issued a violation in IR 50-271/97-06 for this second event. The licensee attributed the cause of this second event to a weakness in the license and design-basis information for this system. The licensee appropriately reported this event to the NRC in LER 50-271/97-014.

As a result of additional engineering review committed to as a corrective action listed in LER 50-271/97-014, the licensee discovered an additional vulnerability for the standby gas treatment system that was subsequently reported to the NRC on February 25, 1998, in DER 33789. The NRC concluded that this latter event was not a result of ineffective operational experience review, but rather a result of the corrective actions for an identified problem.

The NRC concluded that these event reports were a result of original design deficiencies, and related weaknesses in the design and licensing basis information for the plant systems in question. The root causes of these events did not raise concern with the adequacy of the licensee's current OEF review program, as discussed in IR 50-271/97-06. Except for DER 33789, which was a result of the licensee's corrective actions program, these events predated the licensee's revised OEF program as discussed in IR 50-271/97-06. Also, one of the events was licensee identified by use of the OEF process.

The DERs referenced by the Petitioner do not constitute a failure of the operational experience review program. On the basis of NRC's previous inspection in this area, the licensee has an adequate industry operational experience review program. Follow-up on the effectiveness of the licensee's operational experience program remains an item of routine review for the NRC inspection staff.

E. High Potential for Other Serious Safety Problems

Petitioner states that since Vermont Yankee's safety evaluation and operational experience review program do not seem adequate, and since it has relied on YAEC

engineering analyses, it is reasonable to expect that there are many more design and licensing-bases problems yet to be dealt with at Vermont Yankee. Petitioner states that the NRC required Salem and Millstone reactor licensees to certify that the safety-related systems at these facilities were within their design and licensing basis before permitting them to be restarted when pervasive and systemic problems very similar to those at Vermont Yankee were identified at these facilities.

As stated in the "Background" section of this Director's Decision, the A/E inspection conducted at Vermont Yankee was performed as a follow-up on the design-basis problems noted at facilities, including Millstone. As previously stated, the NRC team concluded that the systems evaluated were capable of performing their intended safety functions. The concerns identified were not of the significance of those observed at Millstone.

Salem Units 1 and 2 were shut down in May and June 1995 respectively because of inadequate control room ventilation, and because of problems with a minimum flow valve that made the residual heat removal system inoperable. Before the shutdown, both Salem units were the subject of significant regulatory attention because of a series of performance problems dating back to 1990. Additionally, NRC Augmented Inspection Teams were dispatched to the Salem units every year between 1991 and 1994 to evaluate significant operational events, including a catastrophic turbine-generator failure and control rod system failures. The NRC was concerned about Salem operation because of frequent equipment failures and personnel errors and failure of previous initiatives to achieve long-term performance improvement. In June 1995, the Region I Regional Administrator issued a confirmatory action letter confirming the licensee's commitment to develop a long-term plan to identify and correct the longstanding equipment deficiencies and address the poor condition of materials, weak management oversight, and ineffective corrective actions.

The magnitude of problems that existed at Salem have not been observed at Vermont

Yankee. As previously stated, the NRC considers that the licensee's safety evaluation and operational experience review program are adequate on the basis of NRC's inspections. In addition, the NRC has not identified any significant concerns with the YAEC/DE&S analysis for Vermont Yankee that warrant the actions requested by the Petitioner.

The Vermont Yankee licensee is conducting a DBD and FSAR review that examines safety-related systems to identify and correct design and licensing-basis problems. Plant operation may continue during these assessments, provided the plant is operated in accordance with its license and NRC's regulations. Deficiencies identified are entered into the corrective action process and operability is determined using guidance similar to that contained in NRC GL 91-18 as discussed previously.

In our recent SALP IR 50-271/98-99, dated August 28, 1998, the NRC concluded that licensee management established a lower threshold for problem reporting, thereby improving problem identification. Particularly noteworthy was management's implementation of the Configuration Management Improvement Project, which improved identification of design and licensing issues. The activities have been rigorous, as evidenced by the number and significance of the issues identified during the development and validation of the system DBDs. The NRC considered the licensee's performance in engineering to be good. The SALP was based on the results of numerous NRC inspections at Vermont Yankee, including a major design (A/E) inspection of certain systems. On the basis of our recent assessment of engineering at Vermont Yankee, the staff concluded that the actions requested by the Petitioner are not warranted.

F. Lack of Adequate Perimeter Security

Petitioner states that Vermont Yankee's lax perimeter security demonstrates that management did not adequately respond to all of the implications of the recent incident involving a former Vermont Yankee contractor. On August 19, 1997, this former contractor was

involved in shootings in New Hampshire and Vermont that left four people dead. The individual was subsequently killed in a confrontation with Vermont law enforcement authorities. Law enforcement authorities later found bomb-making materials stored at the individual's residence. Petitioner states that NRC inspectors recently discovered a major weakness in the security system by having five out of eight inspectors successfully invade the security perimeter, including one inspector who passed through the metal detector with a gun.

The NRC conducted a special inspection at Vermont Yankee on August 27 and 28, 1997, to determine if the access authorization program, access controls, and fitness for duty program, as implemented, revealed information that should have prevented the individual involved in the shootings of August 19, 1997, from being granted unescorted access. The NRC determined that the licensee's program met regulatory requirements. The NRC did not identify any information used by the licensee in processing the individual for access authorization that should have prevented the licensee from granting the individual unescorted access to the secured portions of the plant. The results of the inspection are documented in IR 50-271/97-07. No changes or corrective actions to the licensee's program were found to be necessary.

The NRC conducted a physical security inspection at Vermont Yankee on March 16-19, 1998, as documented in IR 50-271/98-05. This inspection concluded that within the scope of the inspection, the Vermont Yankee licensee had in place a satisfactory program for the protection of public health and safety. However, two violations of regulatory requirements associated with access control of packages and the intrusion detection (perimeter security) system were identified. The violations were categorized as Severity Level IV violations in accordance with the NRC enforcement policy and are discussed below.

Performance testing of the intrusion detection system by the NRC regional assistance team resulted in the assistance team's successfully gaining undetected access into the protected area by climbing over the protected area barrier without generating an alarm in 6 of

10 zones. This weakness constituted a violation of NRC requirements. The licensee took adequate corrective actions for the violation by immediately implementing compensatory measures and adjusting all fence zone sensors. All zones subsequently successfully detected deliberative, non-aggressive climbing attempts by a specially selected security force member. A specifically defined non-aggressive climb test was incorporated into regularly scheduled operability testing of the system. Despite this violation, the NRC concluded that the licensee's security facilities and equipment were well maintained and reliable on the basis of inspection, testing, maintenance, compensatory measures, protected area detection aids, and assessment aids.

During the performance testing of the personnel and package search equipment, a test device was placed in a backpack with other items and placed on the x-ray machine. The x-ray machine detected an object in the backpack that could not be identified and the backpack was physically searched by a security force member. However, the test device was not discovered during the physical search, constituting a violation of NRC requirements. The licensee took adequate corrective actions, including counseling and retraining the search officer involved, as well as assessing the hand search practices utilized by other security officers. Lessons learned and performance expectations were also communicated to each individual member of the security force. The NRC concluded that the licensee was conducting its security and safeguards activities in a manner that protected public health and safety on the basis of the inspection of the access authorization program, alarm stations, and access control of personnel and packages in the protected area despite the violation in this area.

The licensee had adequately addressed the issues raised by IR 50-271/98-05 violations. The NRC performed a follow-up inspection described in IR 50-271/98-12 during the week of August 31, 1998, which included an evaluation of the licensee's corrective actions for the violations and found the corrective actions acceptable. NRC's SALP report dated August

28, 1998, considered these issues and concluded that site management continued to provide appropriate oversight of the security program. These violations were not related to the situation involving the former Vermont Yankee contractor previously discussed. Therefore, since these situations are not related and no changes or corrective actions to the licensee program were necessary following the former contractor issue, the NRC considers that Petitioner's statement that lax perimeter security demonstrates that management did not adequately respond to all of the implications of the recent incident involving a former Vermont Yankee contractor is not valid.

G. Operation Conditional Upon the DBD and the FSAR Schedule

Petitioner stated that Vermont Yankee should be allowed to operate only if it meets the scheduling obligations it set up for completing DBDs and updating the FSAR (by imposition of a license condition or Order). The Petition stated that Vermont Yankee's lagging efforts at regulatory compliance easily justify this action.

As previously stated, on October 9, 1996, the NRC issued a request for information pursuant to 10 CFR 50.54(f) regarding the adequacy and availability of design-basis information. By letters dated February 14 and March 11, 1997, the licensee responded to the request for information. The licensee committed to a series of actions designed to provide improved configuration management (adequacy and availability of design-basis information). These actions included a DBD program and an FSAR verification program. The A/E inspection previously discussed, IR 50-271/97-201, was conducted to review particular aspects of the licensee's design control programs and processes. The DBD and the FSAR verification programs were originally scheduled to be completed by October 1998 and December 1998, respectively. The NRC understands that these programs require extensive use of engineering resources and that the scheduled date for completion of these programs may be delayed. The NRC staff has concluded that licensee management has placed an appropriately high emphasis on the configuration management improvement project, which includes the DBD and the FSAR

verification programs. A delay in the licensee's implementation would not necessarily constitute a condition warranting a license condition or imposition of an Order. The NRC staff currently believes that an adequate time frame for completion of the FSAR verification programs is March 30, 2000, for structures, systems, and components of high safety significance as defined in the licensee's maintenance rule, and March 30, 2001, for all other information. Delayed completion of these programs may be subject to enforcement.

With respect to Vermont Yankee's regulatory compliance, compliance issues have been appropriately addressed by the NRC and the licensee as previously discussed. In the SALP report issued on August 28, 1998, the NRC concluded that licensee performance has been good in all functional areas, which reflects NRC's assessment of regulatory compliance during the period of January 19, 1997, to July 18, 1998. On the basis of this information, the NRC has determined that the requested action is not necessary.

H. Necessity for a "Vertical Slice" Safety Assessment

Petitioner states that a "vertical slice" safety assessment on at least two systems for which the licensee has completed review is necessary to be certain that Vermont Yankee's DBD and FSAR projects have accurately captured the actual operating condition of the facility's safety systems. By "vertical slice," the Petitioner appears to be referring to an inspection similar to the A/E inspection previously performed and documented in IR 50-271/97-201. Petitioner references statements made during the enforcement conference on March 2, 1998, between the NRC and the licensee following the NRC A/E inspection, which discussed the process that the licensee was using in the DBD validation process.

This area was evaluated by the NRC and documented in IR 50-271/97-10. The NRC had been concerned that at the time of the A/E inspection, it did not appear that the DBD reviews would have identified the design issues found by the NRC team based on an initial review of the licensee's design-basis efforts. At the enforcement conference meeting on

March 2, 1998, the licensee stated that it had committed to perform the DBD reviews and recognized the need for DBD validation prior to issuance of the NRC's 10 CFR 50.54(f) letter regarding the adequacy and availability of design-basis information. However, the validation effort had not been fully defined at the time of the A/E inspection. The licensee stated that the validation effort would have been designed to identify the type of problems found by the A/E team. On the basis of the findings of the follow-up inspection completed in November 1997 (IR 50-271/97-10) and the information provided at the March 1998 meeting, the NRC was no longer concerned with DBD validation effort. The NRC staff documented this conclusion by letter dated April 14, 1998, which issued the NOV and civil penalty related to the A/E inspection and IR 50-271/97-10. The SALP report issued August 28, 1998, concluded that overall the activities in this area have been rigorous, as evidenced by the number and significance of the issues identified during the development and validation of the system DBDs.

The NRC considers that the licensee's efforts in this area are adequate, and allocation of additional NRC resources to perform an additional "vertical slice" safety assessment is unnecessary at this time. The NRC will continue to evaluate the adequacy of the licensee's corrective actions for the violations identified during the A/E inspection in future inspections.

I. Conduct of a Public Hearing in Brattleboro, Vermont To Inform the Public

Petitioner requested that the NRC conduct a public hearing in Brattleboro, Vermont, to inform the public about changes to the torus, compliance with the DBD and the FSAR process, results of the A/E inspection, results of an NRC "vertical slice" analysis of Vermont Yankee's first sets of DBDs, and the implications for public health and safety of Vermont Yankee's schedule for complying with the requirements that it verify and update all DBDs and the FSAR.

The NRC has conducted several public meetings on many of these issues. In addition, the NRC conducted a public meeting in Brattleboro, Vermont, on September 16, 1998, to discuss the results of the latest SALP for Vermont Yankee. Following the meeting with the

licensee, the NRC met with members of the public, including members of the Petitioner's organization, to discuss any issues that members of the public wished to discuss. Both the July 6, 1998, NRC letter to the Petitioner and the SALP public meeting notice indicated that NRC officials would be available following the SALP meeting. Issues discussed with members of the public included those described by the Petitioner. Further commitment of NRC staff resources to conduct the requested hearing is not warranted.

J. Review of Vermont Yankee Daily Event Reports

Petitioner attached to the Petition a letter dated May 14, 1998, from the UCS to the Petitioner that contained a review of DER information at Vermont Yankee and provided general observations and conclusions. Concerns raised included the single-failure criterion, inadequate safety evaluations, potential over-reliance on YAEC, and the program to review inadequate operational experience. These issues were addressed earlier in this Director's Decision. The conditions documented in the DERs have been addressed by NRC inspection follow-up when appropriate and no additional action is necessary.

K. Concern About Water Hammer Effects on Certain Systems

Petitioner attached a document titled "Vermont Yankee HPCI/RCIC [High Pressure Coolant Injection Reactor Core Isolation Cooling] Waterhammer, DER 33545," dated January 29, 1998, to David J. Vito, Senior Allegation Coordinator for the NRC, from the UCS.

The document questioned (1) whether the Vermont Yankee FSAR analyses assume that HPCI and RCIC start and stop, and, if so, is suppression pool temperature such that conditions for water hammer exist; (2) whether the FSAR appropriately documents the existence (and related design and licensing basis) of the vacuum breakers in the HPCI and RCIC exhaust lines; and (3) whether the related Vermont Yankee LER should discuss the risk to the public from two fission product barriers being degraded (the fuel cladding due to known leaking fuel at Vermont Yankee, and the primary containment boundary due to potential water

hammer).

In response, the NRC reviewed Vermont Yankee's subsequent LER 98-05, issued on April 9, 1998, and performed inspection activities at Vermont Yankee in June 1998, as described in IR 50-271/98-80. The NRC review found that the effect of the suppression pool air space pressure was not adequately considered in the original HPCI and RCIC vacuum breaker design. However, the NRC also concluded that the forces associated with the potential water hammer transients caused by this design issue would not have challenged the structural integrity of the piping.

Although the previous vacuum breaker design was not adequately described in the FSAR, earlier versions of HPCI and RCIC piping and instrument diagrams did accurately reflect the installed configuration. A subsequent modification to correct the design deficiency shows that controlled drawings, the DBDs for HPCI and RCIC, and the FSAR have been or will be updated to reflect the newly installed vacuum breaker configurations. The NRC also sampled design changes since 1974 related to HPCI and RCIC and found none that would have influenced the piping configuration in question. Further, the DBD prepared for each system represents a comprehensive evaluation of past modifications and design information. In January 1998, during the preparation of the HPCI and RCIC DBDs, the licensee identified the vacuum breaker deficiency. Therefore, on the basis of the NRC's and the licensee's reviews, there is reasonable assurance that no past evaluations would have been flawed as a result of the lack of discussion in the FSAR.

Regarding the content of LER 98-05, the NRC concluded that the potential water hammer forces would not have been high enough to challenge pipe structural limits and, therefore, containment integrity. Regarding the fuel cladding, the leakage experienced in the last cycle of operation was limited to a single fuel rod bundle, and was within the operational limits of the Vermont Yankee technical specifications (TSs) and well below that assumed in the

FSAR accident analysis. As such, no significant increase in risk was presented in this circumstance.

L. Mislocated Fuel Bundle Loading Errors

Petitioner also attached a letter dated May 5, 1997, from the UCS to the NRC regarding "Mislocated Fuel Bundle Loading Error." The letter urges NRC to revisit the misoriented and mislocated fuel bundle loading issues for boiling-water reactors (BWRs). It also questioned the validity of General Electric's (GE's) estimated probability of these events as submitted to NRC.

GE proposed that these events be reclassified as accidents because they are potentially limiting events for critical power ratio (CPR) margin to the CPR safety limit, particularly for the BWR6 design. GE's estimated probability of these events was not accepted by the staff, and they continue to be treated as anticipated operational occurrences for licensing purposes.

The UCS letter implies that GE may have purposely submitted an unrealistically low probability value for these events. GE's estimated probability was based on the fact that since 1981, when SIL-347 (which gives guidelines for core verification procedures for detection of misoriented fuel bundles) was first implemented, there had been no reported cases of plant operation with a misoriented bundle. GE's assessment was made before the Hope Creek misoriented fuel bundle event. GE's estimated probability in this specific case (Hope Creek) was not unreasonable considering reactor performance after SIL-347 implementation and before this event.

M. Potential Safety Hazard Reactor Operation With Failed Fuel Cladding

Petitioner also attached a document from the UCS titled "Potential Nuclear Safety Hazard Reactor Operation With Failed Fuel Cladding," which concludes that existing design and licensing requirements do not allow plants to operate with known fuel cladding failures. This document was also provided to the NRC from the UCS to support a Petition submitted pursuant to 10 CFR 2.206. A Director's Decision is being prepared. A copy of that Decision will

be forwarded to the Petitioner when it becomes available.

With regard to plant safety, the Vermont Yankee plant is not prohibited from operation with a minimal amount of fuel cladding damage, as stated in the letter of July 6, 1998. The Vermont TS Section 1.1 addresses limits to be observed to prevent significant fuel cladding damage. Operation is allowed to continue with a minimal amount of fuel damage, provided that the coolant chemistry requirements of TS 3.6.B are met. These limits are set to values of coolant activity that ensure that the radiological consequences of postulated design-basis accidents are within the appropriate dose acceptance criteria. Petitioner did not submit any information indicating that Vermont Yankee has operated outside these limits.

N. Event of June 9, 1998

In response to the June 9 event, the NRC performed a special team inspection to review the causes, safety implications, and licensee actions associated with the event. The event involved a reactor vessel high water level turbine trip (due to foreign material in a reactor feedwater valve) and reactor scram followed by an electrical transient. The NRC staff concluded that continued operation of Vermont Yankee does not constitute an undue risk to public health and safety and immediate action to suspend or modify the operating license is not warranted at this time. IR 50-271/98-09, dated July 10, 1998, documented the team's findings.

IV. CONCLUSION

The NRC staff has evaluated the information provided by the Petitioner as its basis for the actions requested. As previously discussed, the information provided by the Petitioner does not warrant any further action.

The NRC staff has been closely monitoring events at Vermont Yankee and has taken numerous actions to ensure that there is no undue risk to public health and safety. The Petitioner did not submit any significant new information about safety issues. The NRC already

knew of the events, inspection reports, and concerns presented in support of the Petition.

Neither the information presented in the Petition nor any other information of which the NRC is aware warrants the actions requested by the Petitioner. Accordingly, the Petitioner's requests for action are denied.

As provided in 10 CFR 2.206(c) a copy of this Decision will be filed with the Secretary of the Commission for the Commission's review. This Decision will constitute the final action of the Commission 25 days after issuance unless the Commission, on its own motion, institutes review of the Decision within that time.

Dated at Rockville, Maryland, this Seventh day of December 1998,

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

UNITED STATES NUCLEAR REGULATORY COMMISSION

VERMONT YANKEE NUCLEAR POWER CORPORATION

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

ISSUANCE OF DIRECTOR'S DECISION UNDER 10 CFR 2.206

Notice is hereby given that the Director, Office of Nuclear Reactor Regulation, has acted on a Petition for action under 10 CFR 2.206 received from Mr. Jonathan Block on May 27, 1998, and supplemented on June 9, 1998, concerning the Vermont Yankee Nuclear Power Station.

The Petition requests that the Commission take immediate enforcement action by suspending the operating license for the Vermont Yankee Nuclear Power Station, operated by the Vermont Yankee Nuclear Power Corporation, until the entire facility has been subjected to an independent safety analysis review similar to the one conducted at the Maine Yankee Atomic Power Station. As an alternative, Petitioner requests that the U.S Nuclear Regulatory Commission (NRC) immediately act to modify the operating license for the facility by requiring that before restart (1) Vermont Yankee management certify under oath that all backup safety systems and all security systems are fully operable and that all safety systems and security systems meet and comply with NRC requirements; (2) Vermont Yankee be held to compliance with all of the restart criteria and protocols in the NRC [Inspection] Manual; (3) Vermont Yankee only be allowed to resume operations after the NRC has conducted a "vertical slice" examination of the degree to which the new design-basis documents (DBDs) and the Final Safety Analysis Report (FSAR) accurately describe at least two of the primary safety systems

for the Vermont Yankee reactor; (4) once operation resumes Vermont Yankee only be allowed to continue operation for as long as it adheres to its schedule for coming into compliance and completing the DBD and the FSAR projects; and (5) the NRC hold a public hearing to discuss the changes to the torus, the Vermont Yankee DBD and FSAR projects, and Vermont Yankee's scheduled completion of these projects in relation to operational safety.

As a basis for the request, the Petitioner raised concerns about the operation of the Vermont Yankee facility, including challenges to the single-failure criterion, inadequate safety evaluations, potential over-reliance on Yankee Atomic Electric Company analyses, an inadequate operational experience review program, high potential for other serious safety problems, and lack of adequate perimeter security. The Petitioner also attached four documents prepared by the Union of Concerned Scientists (UCS). One UCS document, dated May 14, 1998, provided a review of Vermont Yankee daily event reports (DERs) made over the previous year as requested by the Citizens Awareness Network, Inc., (CAN). These DERs are verbal reports made by licensees under 10 CFR 50.72 to the NRC and put in written form by the NRC. Another UCS document, dated January 29, 1998, was addressed to the NRC Region I Senior Allegation Coordinator; it discussed a specific concern with NRC DER 33545 of January 15, 1998, associated with Vermont Yankee water hammer effects on certain systems. The third document, a UCS letter dated May 5, 1997, to the NRC Chairman and Commissioners, discussed mis-located fuel bundle loading errors. The final UCS document attached was titled "Potential Nuclear Safety Hazard Reactor Operation With Failed Fuel Cladding," dated April 2, 1998. In the supplement of June 9, 1998, Petitioner asserted that the event on June 9, 1998, at Vermont Yankee indicated a lack of reasonable assurance that safety-related systems at Vermont Yankee will perform adequately.

The Director of the Office of Nuclear Reactor Regulation has determined that the request should be denied for the reasons stated in the "Director's Decision Pursuant to 10 CFR 2.206" (DD-98-), the complete text of which follows this notice and which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555-0001, and at the Local Public Document Room located at the Brooks Memorial Library, 224 Main Street, Brattleboro, VT 05301.

As provided in 10 CFR 2.206(c) a copy of this Decision will be filed with the Secretary of the Commission for the Commission's review. This Decision will constitute the final action of the Commission 25 days after issuance unless the Commission, on its own motion, institutes review of the Decision within that time.

Dated at Rockville, Maryland, this day of 1998.

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation