FROM:	DUE: 08/03/11	EDO CONTROL: G20110523 DOC DT: 07/14/11 FINAL REPLY:
Representative Edwa	rd Markey	
TO:		
Chairman Jaczko)	
FOR SIGNATURE OF :	** GRN **	CRC NO: 11-0411
Chairman Jaczko)	
DESC:		ROUTING:
NRC Safety Requirements for Reactors Granted Construction Permits Prior to 1971 (EDATS: SECY 2011-0411)		anted Borchardt Weber Virgilio Ash Mamish OGC/GC
DATE: 07/15/11		Leeds, NRR Burns OGC
ASSIGNED TO:	CONTACT:	Schmidt, OCA
EDO	Rihm	
SPECIAL INSTRUCTION	IS OR REMARKS:	
Please prepare re Notice 2009-0441- input to Roger Ri coordinate respon	sponse in accordance w 02 (ML093290179). NRR .hm, OEDO, if required. 1se with OGC and OCA.	vith OEDO to provide Roger will

EDO Principal Correspondence Control

Amplate: SECY017

ERAS: SECT-01

Electronic Document and Action Tracking System

EDATS Number: SECY-2011-0411

OEDO Due Date: 8/3/2011 11:00 PM **SECY Due Date:** 8/5/2011 11:00 PM

Subject: NRC Safety Requirements for Reactors Granted Construction Permits Prior to 1971

Description:

Other Assignees:

General Information Assigned To: OEDO

CC Routing: NRR; OGC; OCA

ADAMS Accession Numbers - Incoming: NONE

Other InformationCross Reference Number: G20110523, LTR-11-0411Related Task:

File Routing: EDATS

Process Information

Action Type: Letter

Signature Level: Chairman Jaczko

Approval Level: No Approval Required

DEDO Concurrence: YES

Concurrence: NO

JCA Concurrence: YES

Special Instructions: Please prepare response in accordance with OEDO Notice 2009-0441-02 (ML093290179). NRR o provide input to Roger Rihm, OEDO, if required. Roger will coordinate response with OGC and OCA.

Document Information

Driginator Name: Representative Edward Markey

Driginating Organization: Congress

Addressee: Chairman Jaczko

ncoming Task Received: Letter

Priority: Medium Sensitivity: None Urgency: NO

Staff Initiated: NO

Recurring Item: NO

Date of Incoming: 7/14/2011 Document Received by SECY Date: 7/15/2011 Date Response Requested by Originator: NONE

Response/Package: NONE

Agency Lesson Learned: NO

OEDO Monthly Report Item: NO

Source: SECY

OFFICE OF THE SECRETARY CORRESPONDENCE CONTROL TICKET

Date Printed: Jul 15, 2011 12:16

PAPER NUMBER:	LTR-11-0411	LOGGING DATE: 07/14/2011	
ACTION OFFICE:	EDO		
AUTHOR:	REP Edward Markey		
AFFILIATION:	CONG		
ADDRESSEE:	Gregory Jaczko		
SUBJECT:	Request clarification regarding NRC safety requirements for reactors granted construction permits prior to 1971		
ACTION:	Signature of Chairman		
DISTRIBUTION:	RF, OCA to Ack		
LETTER DATE:	07/14/2011	·	
ACKNOWLEDGED	No		
SPECIAL HANDLING:	Commission Correspondence		
NOTES:	Response requested NLT, Monday, July 18th; however, OCA has established a new due of 8/15/2011 to Congress - Due to SECY by 8/5/2011.		
FILE LOCATION:	ADAMS		
DATE DUE:	08/05/2011 DA	TE SIGNED:	

COMMITTEES

NATURAL RESOURCES RANKING DEMOCRAT

ENERGY AND COMMERCE

EDWARD J: MARKEY 7TH DISTRICT, MASSACHUSETTS

Congress of the United States

House of Representatives Washington, DC 20515–2107

July 14, 2011

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The Honorable Greg Jaczko Chairman Nuclear Regulatory Commission 11555 Rockville Pike Rockville, MD 20852

Dear Chairman Jaczko:

I write to request clarification regarding important Nuclear Regulatory Commission (NRC) safety requirements that do not appear to apply to fifty-nine nuclear reactors (approximately 57 percent of the current U.S. nuclear fleet) that were granted construction permits prior to 1971.¹ In particular, many of the commendable recommendations contained within the NRC report "Recommendations for Enhancing Reactor Safety in the 21st Century: NRC Near-Term Task Force Review of Insights From the Fukushima Dai-Ichi Accident"² may not, even if adopted and implemented by the Commission, apply to many of these reactors unless the Commission takes specific action to ensure coverage. If the 21st century nuclear safety requirements are not applied to all of our 20th century nuclear power plants, we will have failed to respond effectively to the Japanese meltdowns.

¹ Oyster Creek Nuclear Generating Station, Unit 1, Nine Mile Point Nuclear Station, Unit 1, Dresden Nuclear Power Station, Unit 2,3 R.E. Ginna Nuclear Power Plant, Indian Point Nuclear Generating, Unit 2, 3, Quad Cities Nuclear Power Station, Unit 1, 2, Palisades Nuclear Plant, H. B. Robinson Steam Electric Plant, Unit 2, Turkey Point Nuclear Generating, Unit 3, 4, Browns Ferry Nuclear Plant, Unit 1, 2, 3, Monticello Nuclear Generating Plant, Unit 1, Point Beach Nuclear Plant, Unit 1, 2, Oconee Nuclear Station, Unit 1,2,3, Vermont Yankee Nuclear Power Plant, Unit 1, Peach Bottom Atomic Power Station, Unit 2, 3, Diablo Canvon Nuclear Power Plant, Unit 1, 2, Three Mile Island Nuclear Station, Unit 1, Cooper Nuclear Station, Fort Calhoun Station, Unit 1, Prairie Island Nuclear Generating Plant, Unit 1, 2, Surry Nuclear Power Station, Unit 1,2, Kewaunee Power Station, Pilgrim Nuclear Power Station, Crystal River Nuclear Generating Plant, Unit 3, Salem Nuclear Generating Station, Unit 1.2, Arkansas Nuclear One, Unit 1, Donald C. Cook Nuclear Power Plant, Unit 1, 2, Calvert Cliffs Nuclear Power Plant, Unit 1, 2, Edwin I. Hatch Nuclear Plant, Unit 1, Brunswick Steam Electric Plant, Unit 1, 2, James A, FitzPatrick Nuclear Power Plant, Sequoyah Nuclear Plant, Unit 1, 2, Duane Arnold Energy Center, Beaver Valley Power Station, Unit 1, St. Lucie Plant, Unit 1, Millstone Power Station, Unit 2, North Anna Power Station, Unit 1, 2 Davis-Besse Nuclear Power Station, Unit 1. Construction permit data are in Appendix A to the NRC Information Digest, 2010-2011 (NUREG-1350, Volume 22). See http://www.nrc.gov/readingrm/doc-collections/nuregs/staff/sr1350/

² See <u>http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-127.pdf</u> for the NRC press release and a link to the full report.

The NRC Task Force report released yesterday included a number of requirements to enhance the safety of U.S. reactors, including requirements to retrofit or otherwise upgrade nuclear reactor protections for severe events (and combinations of events) such as earthquakes, tsunamis, fires or floods. According to the report, many of the current requirements in this area are defined by the General Design Criteria (GDC) contained within Appendix A of the 10 CFR 50 regulations. The GDC³ include numerous safety requirements, including those related to withstanding "the effects of natural phenomena such as earthquakes, tornadoes, hurricanes, floods, tsunami, and seiches without loss of capability to perform the reactors' safety functions."

On September 18, 1992 the Commission decided not to apply the GDC to nuclear power plants with construction permits issued prior to May 21, 1971 (see page 9 of Attachment 1, and Attachment 2), deciding instead to rely on individual license requirements to assure each such reactor's safety. Thus, if the Commission follows the Task Force's recommendations solely through making revisions to the GDC, these revisions will not be applicable to any of the fifty-nine older reactors that are not subject to the GDC. This outcome would obviously be inimical to the goal of upgrading the safety requirements of all nuclear reactors in this country. It is of particular concern given the fact that these reactors constitute the oldest in the nation and therefore may be especially vulnerable to aging-related degradations in safety systems. Accordingly, I ask that you please inform me whether it is the Commission's intent to ensure that any safety . requirements adopted in response to the Fukushima meltdowns are applicable to and enforceable at all nuclear power plants (as appropriate for each reactor's specific design features), irrespective of when the construction permits for those nuclear power plants was issued. If not, why not?

Thank you very much for your prompt attention to this important matter. I request that a response to this inquiry be provided no later than close of business, Monday, July 18, 2011. If you have any questions or concerns, please have your staff contact Dr. Michal Freedhoff of my staff at 202-225-2836.

Sincerely,

Edward J. Markev

¹ http://www.nrc.gov/reading-rm/doc-collections/cfr/part050/part050-appa.html

Attachment 1

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June 19, 1992

SECY-92-223

For: The Commissioners

From:

James M. Taylor Executive Director for Operations

RESOLUTION OF DEVIATIONS IDENTIFIED DURING THE SYSTEMATIC EVALUATION PROGRAM Subject:

Purpose:

To present options for the Commission to consider regarding the resolution of deviations from regulations the staff identified during the Systematic Evaluation Program (SEP). The staff requests the Commission to issue guidance on this matter.

Background:

In 1977, the U.S. Nuclear Regulatory Commission (NRC) initiated the SEP to review the designs of older operating nuclear power plants. The original SEP objectives were that the NRC should

- assess the safety adequacy of the design and (1) operation of currently licensed nuclear power plants,
- establish documentation which shows how each (2) operating plant reviewed compares with current criteria on significant safety issues and provide a rationale for acceptable departures from these criteria,

Contact: Marylee Slosson, NRR 504-1282

NOTE: TO BE MADE PUBLICLY AVAILABLE WHEN THE FINAL SRM IS WADE AVAILABLE

- (3) provide the capability to make integrated and balanced decisions about any required backfitting,
- (4) structure the program to identify early and resolve any significant deficiencies,
- (5) use available resources efficiently and minimize requirements for additional resources by the NRC or the industry.

In Phase I of the SEP, the staff performed a comprehensive review of existing safety issues to define an optimum set of review areas (topics) for evaluating the older plants. The staff defined 137 issues from an original list of about 800 topics and found that the regulatory requirements for these 137 issues had changed enough to warrant evaluating those plants licensed before the staff had issued the Standard Review Plan (SRP) in 1975. In Phase II of the SEP, the staff compared the designs of 10 of the older plants to the licensing criteria delineated in the SRP. These 10 plants are called the "SEP plants." The staff identified approximately 80 to 90 issues from the original 137 issues that applied to each SEP facility, although the specific issues varied among the facilities. The staff determined that the SEP plants met the current criteria or were "acceptable on another defined basis" for about 50 of the issues. The staff considered the 30 to 40 remaining issues when it performed the integrated assessment for each plant. The staff documented each of these 30 to 40 issues, which required further action or review, in Integrated Plant Safety Assessment Reports (IPSARs) as well as in individual safety evaluation reports (SERs). The staff documented the safety reviews for issues found acceptable before it conducted the integrated assessments in individual SERs and did not specifically discuss these issues in detail in the IPSAR itself.

Upon reviewing the lists of the 30 to 40 issues that required further action or review for each of the SEP plants, the staff identified 27 issues that required some corrective action at one or more of the SEP plants and whose resolution could lead to safety improvements for other operating plants built at about the same time. These 27 issues are known as the "SEP lessons learned issues."

In SECY-84-133, "Integrated Safety Assessment Program" of March 23, 1984, the staff presented the 27 SEP lessons learned issues to the Commission as part of a proposal for an Integrated Safety Assessment Program (ISAP). The staff developed the ISAP to review safety issues for a specific plant in an integrated manner instead of continuing Phase III of the SEP at other older operating reactors, as proposed previously. In the "Commission Policy Statement on the Systematic Evaluation of Operating Nuclear Power Reactors" of November 15, 1984, the Commission described the ISAP program and discussed Public Law (PL) 96-295, the NRC Authorization Bill for Fiscal Year 1980, enacted by Congress. Section 110 of PL 96-295 required the NRC to develop a program by which to systematically evaluate the safety of all operating reactors. The program proposal would have extended the SEP to require each licensee to perform an evaluation to compare its plant design to the acceptance criteria in the Standard Review Plan. However, this program was not implemented for operating reactors. The Commission determined, and Congress agreed, that the scope of the program was too broad to efficiently evaluate the safety of operating reactors. Congress specified in later authorization bills that funds should not be spent to implement the program. In May 1985, the NRC initiated the ISAP pilot program at two plants, Millstone 1 and Haddam Neck, which were also SEP plants. After reviewing these two plants, the NRC did not further pursue the ISAP.

During Phase II of the SEP, the staff identified deviations (1) from the requirements of the regulations [in some cases the general design criteria (GDC) of Appendix A to Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50)] or (2) from the staff's positions on compliance with regulations (the 1975 version of the SRP). The staff evaluated each deviation to identify either the safety need for and proposed methods of satisfying the regulation or the adequacy of proposed compensatory measures.

In SECY-87-100, "Systematic Evaluation Program (SEP) Plant Exemptions," of April 14, 1987, the staff recommended that the Commission approve a procedure for processing exemptions from those regulations for which deviations were identified in the IPSARs for the SEP plants. The staff stated that the proposed exemptions satisfied the special circumstances criterion in 10 CFR 50.12(a)(2)(ii); that is,

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applying the regulation would not achieve the underlying purpose of the rule.

In a memorandum of June 22, 1987, from Samuel J. Chilk, Secretary, to Victor Stello, Jr., Executive Director for Operations, and William C. Parler, General Counsel, the Commission disapproved the recommended procedure and requested the staff to provide it with a range of options to consider. It also requested that the staff provide it with a legal analysis for each option and address the legal necessity for processing the exemptions.

The staff has delayed the response to this issue until now because of the tie between its response to the Commission's request and the Commission's actions regarding license renewal, particulary actions pertaining to the current licensing basis. With the Commission's development of the regulatory framework for license renewal through issuance of 10 CFR Part 54 in December 1991, the staff is now able to provide options to the Commission and to make a recommendation consistent with the Commission's direction on license renewal.

Discussion:

Responding to the Commission's direction, the staff has reexamined the SEP and has developed a range of options, an analysis of each option, and a position on the legal necessity of issuing exemptions.

The NRC decided in 1984, with agreement of Congress, not to extend the full scope SEP to other operating reactors built at about the same time. However, the staff recommended conducting a generic review of the 27 SEP lessons learned issues. While preparing the proposed license renewal rule, the staff reviewed the issues and reported in SECY 91-330, "Final Rule on Nuclear Power Plant License Renewal," of October 18, 1991, that it had determined that 4 of the 27 issues had been completely resolved for all plants and that one was of such low safety significance as to require no regulatory action. The staff determined that none of the remaining 22 issues require immediate action to protect the health and safety of the public. The staff is addressing these 22 issues in the established regulatory process for determining the safety significance of generic safety issues (GSIs) as described in NUREG-0933, "A Prioritization of Generic Safety Issues." In SECY 91-330, the staff stated that none of the SEP lessons learned issues should require immediate action as part of an application for license renewal. The staff has

completed the prioritization of seven of the SEP lessons learned issues. Each of the seven issues has been dropped from further pursuit because they are being addressed by other ongoing NRC programs. If any of the SEP lessons learned issues are determined to require generic resolution they will be pursued for all applicable plants.

The staff identified four basic considerations in determining the need for exemptions: (1) the Commission's policy on applying the GDC to the SEP plants; (2) the applicability of other regulations promulgated after the SEP plants received their construction permits (CPs) or operating licenses (OLs); (3) the difference between a finding that the criterion of a regulation was met and a finding that it was acceptable on another defined basis; and (4) the difference between deviations from the rules themselves and deviations from the staff's positions or review criteria for meeting the rule. The analysis of these considerations will affect the Commission's decision concerning the range of options. Therefore, the staff will discuss these considerations before presenting the range of options.

Many of the deviations identified during the SEP and all but 1 of the 27 SEP lessons learned issues concern deviations associated with the GDC in Appendix λ to 10 CFR Part 50 which became effective on May 21, 1971. Therefore, to determine the necessity of issuing exemptions for many of the SEP issues, the staff must address the Commission's policy regarding application of the GDC to the plants that had their construction permit by that date but did not have an operating license.

The Office of the General Counsel (OGC) believes that the intent of the Commission when it promulgated the GDC regulation is not clear and that the Commission can, as a matter of safety policy, choose to interpret the GDC as applying to all plants with operating licenses issued after May 21, 1971, or can restrict applicability of the GDC to plants with CPs issued after May 21, 1971.

A discussion of both interpretrations follows, including the consequences for NRC's regulatory programs.

The staff believes that the current policy on applying the GDC to plants with CPs issued prior to

May 21, 1971 is that the substantive criteria of the GDC apply through individual licensing actions rather than through the application of the GDC regulation. The rationale supporting this policy is that in 10 CFR 50.34 (a)(3), the NRC requires applicants for CPs to include the principal design criteria for the facility in the preliminary safety analysis report (PSAR). This is the only reference in Part 50 to Appendix A. The Commission's regulations do not require the applicant to include the Appendix A criteria in the final safety analysis report (FSAR). However, other appendices in Part 50 specifically reference both the 10 CFR 50.34 (a) requirements for CP applicants. The implication of this dissimilarity in treatment, and the literal wording of 10 CFR 50.34 (a)(3)(i) which restricts Appendix A to applicants for construction permits, support the policy that the Commission consciously restricted the application of the GDC regulation to plants with construction permits issued after May 21, 1971.

This is not to say, however, that the substantive criteria contained in the GDC have not been applied to plants with construction permits issued before May 21, 1971. In the supplementary information of the proposed GDC rule, the Commission emphasized that the GDC were not new requirements. Rather, the Commission issued them to more clearly articulate the licensing requirements and practice that were in effect when the rule was published. This is reinforced by the statement in the rule that the GDC,

> establish minimum requirements for the principal design criteria for water-cooled nuclear power plants similar in design and location to plants for which construction permits have been issued by the Commission.

Furthermore, existing regulatory processes are sufficiently broad and rigorous to ensure that the plants continue to be safe and to comply with the intent of the GDC. This process was the basis for the Commission's recently promulgated rule on renewal of nuclear power plant licenses, 10 CFR Part 54. Therefore safety does not require application of the GDC to the older plants.

The staff's practice has not been to apply the specific GDC contained in Appendix A to facilities with construction permits issued before May 21, 1971. Furthermore, issuing exemptions for deviations in the

SEP will add no safety benefit or perspective to those issues already documented in the SERS, IPSARS, and SERs on the conversion from provisional operating licenses (POLS) to full term operating licenses (FTOLS). However, a view that the GDC do apply might reasonably be viewed as a change in practice and therefore as a backfit. The staff does not believe that the substantial increase in protection criteria of the backfit rule can be met. Therefore, the staff does not believe that exemptions for deviations from the GDC identified during the SEP process are necessary or appropriate.

The rationale for a contrary policy or interpretation that the GDC apply to all plants with operating licenses issued after May 21, 1971 is also suggested by the introduction to Appendix A, which states that the GDC establish the minimum requirements for the principal design criteria necessary to provide reasonable assurance that the facility can be operated without undue risk to the 'public health and safety. The phrase "without undue risk" represents the statutory requirements of Section 182 of the Atomic Energy Act for "adequate protection of public health and safety." The use of the statutory standard implies that the GDC represent the minimum standard for all licensees. Furthermore, in the supplementary information of the final rule, the Commission stated that, in considering issuing an operating license under Part 50, it would require assurance that these criteria have been satisfied in the detailed documentation on the design and construction of the facility. Thus application of the GDC to the older plants would establish a basis in the regulations for the safety analyses supporting licensing for all plants.

On the other hand, exemptions would be required for deviations from the GDC if the Commission, upon reviewing this issue, decides to apply the GDC to plants whose construction permits were issued before May 21, 1971, but whose operating licenses were issued after May 21, 1971. The staff did not review and document the SEP issues in SERs for the non-SEP plants as it did for the SEP plants. Therefore, any actions required to resolve the issues at the SEP plants will require far greater resources if applied to the non-SEP plants built at about the same time. Moreover, although the SEP identified "deviations", it is unclear whether these deviations are from the requirements of the regulations themselves, or simply from staff guidance or practice on acceptable methods of compliance with the regulations. The IPSARs often state that the facility does not meet the regulation as implemented by a staff position such as that provided in a regulatory guide or an SRF section. If the deviations are departures from staff guidance or practice, but the requirements of the regulation are met, there is no problem of compliance and no exemptions are necessary. Further staff review would be required to determine if the deviations are deviations. This review, while necessary to establish the need for exemptions, will not contribute to the issue from a safety perspective.

In conducting the SEP, the staff also identified possible deviations from other NRC regulations. Some examples of the other regulations referenced in the reviews of SEP issues are 10 CFR Part 20; Appendixes B, E, G, I, J, and K to 10 CFR Part 50; 10 CFR 50.36; 10 CFR 50.44; 10 CFR 50.46; 10 CFR 50.55(a); 10 CFR Part 70; 10 CFR Part 73; and 10 CFR Part 100. Most if not all of these regulations were promulgated by the Commission with the understanding that they were to be backfit to the existing plants', because the regulation makes no distinction in implementation or applicability with respect to the licensing date of the plants². For a specific SEP issue, if the staff determined that the plant was acceptable without meeting the exact requirements of a regulation that was backfit, then an exemption would be required.

¹Pursuant to 10 CFR 50.54(h), all Part 50 licenses are subject to those regulations, adopted after issuance of the licenses, which are intended to be retroactive in effect.

²Although the 1970 Backfit Rule required the Commission to find that a backfit will provide "substantial, additional protection which is required for the public health and safety or common defense and security," the 1970 rule did not require the basis for that finding to be documented, unlike the 1985 or 1988 backfit rules. Accordingly, the basis for the Commission's conclusion that the Backfit Rule's criteria had been satisfied may be incomplete or absent form the records for many rulemakings predating the 1985 Backfit Rule. Options

The staff suggests that the Commission consider the following options.

OPTION 1

<u>Action</u>

Retain the staff's current policy on requiring no specific backfit of the GDC to plants whose construction permits were issued before May 21, 1971, the effective date of the GDC rule. Issue no exemptions for deviations identified in the SEP. Continue to document the resolution of similar deviations for other plants in this situation in SERs and other appropriate licensing documents.

Analysis

The NRC began the SEP to review the design of older nuclear power plants to document their safety in light of current licensing requirements. The staff has documented this review by issuing SERs on individual issues, IPSARS, SERs on the conversion from POLs to FTOLS, and the continuing process of identifying and resolving generic safety issues (GSIs). Further safety benefit will not be obtained by additionally documenting this review as an exemption. Moreover, applying the GDC to these older plants might be a backfit, and the substantial increase in protection criteria in the backfit rule cannot be met.

On the other hand, if the GDC do not apply to plants with CPs issued prior to the effective date of the GDC but with OL's issued after that date, there will be a substantial number of plants for which no <u>documented</u> regulatory standards will exist to determine compliance with the Atomic Energy Act other than the issued license. This means that it would be difficult, absent reconstruction of the licensing basis, to determine what standards were applied during the staff OL safety review. There would, however, be a plant specific standard, as documented in the specific license, licensing Safety Evaluation Report, and the Final Safety Analysis Report.³

³Except in rare situations, NRC has not taken enforcement action for failures to meet GDC. Normally, a violation is cited by focusing on a Technical Specification, specific regulation, or the OPTION 2

Action

Revise the staff's current policy and specifically backfit the GDC to all plants whose operating licenses were issued after the effective date of the GDC rule. Issue exemptions from the GDC or any other backfitted regulations after reviewing the SEP topics listed in the IPSARs, including both those that were found acceptable on another defined basis before the IPSAR review and those for which deviations were identified during the integrated assessment.

Analysis

The Commission would determine that the GDC apply to plants with operating licenses issued after May 21, 1971. The Commission would direct the staff to perform a review to ensure (1) that identified deviations are actually deviations from the regulation and not from the staff's positions, (2) that issues previously found acceptable on another defined basis do not also require exemptions, and (3) that regulations other than the GDC for which there are deviations are not backfitted regulations that would require exemptions. The staff would need to evaluate each of the 80 to 90 plant-specific issues for each of the 7 currently operating SEP plants (the evaluation would exclude the Lacrosse and Yankee Rowe plants which are permanently shut down, and San Onofre 1 which is scheduled to be shutdown within two years), or approximately 600 evaluations. To conduct this review and process the exemptions for the issues, the staff would need to allot from 6 to 12 staff full-time equivalents (FTEs) assuming that the review would require from 16 to 32 hours per issue.

The staff would limit its review for Big Rock Point to regulations other than the GDC because the CP and OL for this plant were issued before May 21, 1971.⁶

FSAR through 50.59.

⁴Big Rock Point is the only currently operating SEP plant for which the CP and OL were issued prior to May 21, 1971. Point Beach 1 and Robinson 2 are the only currently operating non-SEP plants for which the CP and OL were issued prior to May 21, 1971. The staff recommends that, if this option is selected, the staff should conduct a pilot program for one or two SEP plants. The program can be expanded or contracted based on the lessons learned from this pilot program.

The objective of SEP was to identify how plants licensed before the 1975 version of the SRP met the then current licensing requirements or equivalent. Where differences were identified which were judged to be potentially significant, they were evaluated collectively in an integrated assessment. This This process focused on the safety of the SEP plants when evaluated against specific review criteria which evolved after plant licensing. The review did not have as its objective a detailed review of conformance to all of the specific elements of the GDCs or the then current staff positions of what was necessary to conform to the GDCs. If exemptions are deemed to be required for SEP plants, the staff may need to expand its review beyond that already completed for the SEP plants and would need to perform similar reviews for older non-SEP plants which were licensed without using the 1975 version of the SRP. Such a review would require extensive resources with little or no safety benefit.

On the other hand, the Commission would avoid not having any readily documented standards for determining compliance with the Atomic Energy Act for these plants.

Licensees may claim that choosing this option represents a backfit from previous staff practice and that a backfit is not justified in view of ongoing regulatory processes to assure that plants' licensing bases provide at least adequate protection.

OPTION 3

Action

Revise the Commission's current policy and specifically backfit the GDC to all plants whose operating licenses were issued after the effective date of the GDC rule. Issue exemptions from the GDC or any other backfitted regulation after reviewing the deviations for only those issues considered in the integrated assessment summary in the IPSARS. This option differs from Option 2 in that it does not include evaluation of the issues determined in the 3

SEP to be "acceptable on another defined basis." The review would be limited to the issues considered in the integrated assessment summary because they are the ones for which the staff determined upon initial review that (1) the plant was not consistent with the current criteria, (2) the deviations were significant to safety, and (3) the staff deferred resolution of these issues to the integrated assessment.

<u>Analysis</u>

The Commission would determine that the GDC apply to plants with operating licenses issued after May 21, 1971 as in Option 2. The Commission would direct the staff to perform a review to ensure (1) that identified deviations are actually deviations from the regulations and not from the staff's positions, and (2) that regulations other than the GDC for which there are deviations are not backfitted regulations that would require exemptions. The staff would need to evaluate each of the 30 to 40 plant-specific issues for each of the 7 currently operating SEP plants, or approximately 250 evaluations. To conduct this review effort and process the exemptions for the issues, the staff would need to allot from 2 to 5 staff full-time equivalents (FTES) assuming that the review would require from 16 to 32 hours per issue.

The staff would limit its review for Big Rock Point to regulations other than the GDC because the CP and OL for this plant were issued before May 21, 1971.

The staff recommends that, if this option is adopted, the staff should conduct a pilot program for one or two SEP plants. The program can be expanded or contracted based on the lessons learned from this pilot program.

This option includes the steps necessary to determine if the deviations considered in the integrated assessment in the IPSARs require exemptions from both the GDC and other regulations. However, it does not address the plant-specific issues omitted from the integrated assessment reviews because they were found acceptable on "another defined basis." A review could indicate that some of these issues could also require exemptions.

The objective of SEP was to identify how plants licensed before the 1975 version of the SRP met the then current licensing requirements or equivalent. Where differences were identified which were judged

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to be potentially significant, they were evaluated collectively in an integrated assessment. This process focused on the safety of specific review criteria which evolved after plant licensing. The review did not have as its objective a detailed review of conformance to all of the specific elements of the GDCs or the then current staff positions of what was necessary to conform to the GDCs. If exemptions are deemed to be required for SEP plants, the staff may need to expand its review beyond that already completed for the SEP plants and would need to perform similar reviews for older non-SEP plants which were licensed without using the 1975 version of the SRP. Such a review would require extensive resources with little or no safety benefit.

This option requires less resources, but leaves the need for exemptions for some GDC's for the SEP plants unresolved.

Recommendations: The staff recommends that the Commission:

- 1. <u>Approve</u> Option 1:
 - a. Continue the current policy of not applying the GDC to plants with construction permits issued before May 21, 1971.
 - b. Direct the staff to conduct no further review because exemptions from the GDC are inappropriate.
 - c. Close the SEP program for the SEP plants.
- 2. <u>Note</u> that the Office of General Counsel (OGC) has reviewed this paper and has no legal objection.

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<u>Note</u> that staff will ensure that the actions it conducts as prompted by the Commission in selecting any of the options will be conducted within the scope of the NRC Five Year Plan.

lor ínes М. Executivé Director for Operations

Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB <u>Tuesday, July 7, 1992</u>.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT <u>Monday</u>, June 29, 1992, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

Attachment 2

DD-05-02

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION OFFICE OF NUCLEAR REACTOR REGULATION

J. E. Dyer, Director

In the Matter of

ENTERGY NUCLEAR VERMONT YANKEE, LLC and ENTERGY NUCLEAR OPERATIONS, INC. Docket No. 50-271

(Vermont Yankee Nuclear Power Station)

License No. DPR-28

DIRECTOR'S DECISION UNDER 10 CFR 2.206

I. Introduction

By letter dated July 29, 2004, as supplemented on December 8, 2004, Mr. Paul Blanch and Mr. Arnold Gundersen (the Petitioners) filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 2.206. The Petitioners requested that the U.S. Nuclear Regulatory Commission (NRC) issue a Demand for Information requiring Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Entergy or the licensee) to provide information that clearly and unambiguously describes how Vermont Yankee Nuclear Power Station (Vermont Yankee) complies with the General Design Criteria (GDC) specified in 10 CFR Part 50 Appendix A, or the draft GDC published by the Atomic Energy Commission (AEC) in 1967. As the basis for their request, the Petitioners stated that this information is essential for two NRC regulatory activities at Vermont Yankee: (1) the NRC's review of Entergy's application for an extended power uprate (EPU), and (2) the NRC's engineering assessment. The Petitioners stated that until the design bases are clearly identified, any inspection or assessment is meaningless.

Enclosure

In a letter dated August 20, 2004, to the Petitioners, the NRC stated that the staff would not treat this request under the 10 CFR 2.206 process because the issues could be addressed through the ongoing licensing proceeding related to the application for an EPU. The period during which a hearing could be requested closed on August 30, 2004. The staff noted that, in accordance with 10 CFR 2.1205(1)(2), if a petition to intervene and request a hearing in a licensing proceeding does not satisfy the legal requirements for a hearing or intervention, the Atomic Safety and Licensing Board Panel (ASLBP) or the Presiding Officer may refer the request to the 10 CFR 2.206 process, in which case, the NRC may accept it for review under 10 CFR 2.206. In response to the Petitioners' request for immediate action due to the imminent performance of the Engineering Team Inspection in August 2004, the letter stated that other methods are available to the inspectors to obtain design basis information, rendering a Demand for Information unnecessary for the purposes of the inspection.

By teleconference on August 26, 2004, the Petitioners discussed the petition with the NRC's Petition Review Board (PRB). This teleconference was transcribed and the transcript is publicly available as a supplement to the petition. The transcript is available for inspection at the Commission's Public Document Room (PDR), at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland, or electronically in the Agencywide Documents Access and Management System (ADAMS) (Accession number ML042870477). Publicly available records will be accessible from the ADAMS Public Electronic Reading Room on the NRC Web site at http://www.nrc.gov/reading-rm/adams.html. Persons who do not have access to ADAMS or who have problems in accessing the documents in ADAMS should contact the NRC PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail to pdr@nrc.gov.

On August 30, 2004, the New England Coalition filed a request for a hearing related to the proposed Vermont Yankee EPU. Among the contentions submitted was a contention that

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the licensee had failed to maintain adequate documentation to determine design basis conformance. This contention, for which Mr. Blanch provided a supporting statement, was similar to the concern raised in the Petitioners' 10 CFR 2.206 petition. By order dated November 22, 2004, the ASLBP declined to admit this contention for hearing. The staff subsequently decided to accept the petition for review pursuant to 10 CFR 2.206, as discussed in a letter to the Petitioners dated January 17, 2005.

On December 8, 2004, the Petitioners supplemented their petition to request that the NRC demonstrate that Vermont Yankee is in compliance with its GDC and other applicable regulations. The Petitioners also expressed their concerns with the process used to conduct the engineering inspection at Vermont Yankee, and repeated the requests for enforcement action discussed in their original petition.

By letter dated May 13, 2005, the NRC staff requested Entergy to provide information related to the petition. Entergy responded by letter dated June 14, 2005, and the information provided was considered by the staff in its evaluation of the petition.

The NRC staff sent a copy of the proposed Director's Decision to the Petitioners and to the licensee for comment by letters dated May 17, 2005. The staff did not receive any comments on the proposed Director's Decision.

II. Discussion

As discussed in Section I, the Petitioners requested that the NRC issue a Demand for Information requiring the licensee to provide information that clearly and unambiguously describes how Vermont Yankee complies with the GDC specified in 10 CFR Part 50, Appendix A, or the draft GDC published by the AEC in 1967. The specific concerns raised by the Petitioners which are used as the basis for their request are discussed in the following paragraphs.

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A. <u>Concern 1 - Conformance With 10 CFR 50.71(e)</u>

1. Petitioners' Concern

The Petitioners stated in their July 29, 2004, letter that Appendix F to the updated final safety analysis report (UFSAR) is neither meaningful or useful due to the marking of the appendix as "historical," and the summary in the appendix which states that "the applicability of the historic design criteria conformance statements to the current facility design has not been evaluated and as such should not be considered current design configuration."

2. Staff's Response

Background

The original Appendix F to the UFSAR documented how Vermont Yankee conformed to the proposed GDC published by the AEC in July of 1967. Vermont Yankee was issued a construction permit in December 1967. In 1971 the AEC published the final version of the GDC as Appendix A to 10 CFR Part 50. In approving the final GDC, the Commission stated that they were not new requirements, but were promulgated to more clearly articulate the licensing requirements and the practices in effect at that time. In 1982 the licensee for Vermont Yankee notified the NRC of a revision to Appendix F. The purpose of the 1982 revision of Appendix F to the UFSAR was to document how the design of Vermont Yankee met the intent of the final GDC, because NRC guidance was not clear at the time regarding the treatment of plants with construction permits granted prior to issuance of the final GDC. In a letter dated September 28, 1999, the licensee clarified that Vermont Yankee was explicitly licensed to the requirements of the draft GDC. This letter was prompted by a Commission decision in 1992 that the staff would not apply the final GDC to plants with construction permits issued prior to May 21, 1971. With the clarification by the Commission that pre-GDC plants, such as Vermont Yankee, do not need exemptions to the final GDC, the licensee notified the NRC that it intended to reinstate the

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original version of Appendix F in the final safety analysis report (FSAR). The September 28, 1999, letter did not indicate that Vermont Yankee intended to mark this appendix as historical. The NRC's November 12, 1999, response to the licensee's September 28, 1999, letter stated that, because the licensee did not indicate that the proposed change involved a Technical Specification (TS) change or an unreviewed safety question, the staff did not intend to review Vermont Yankee's position regarding reinstatement of the original Appendix F. However, the letter stressed that the NRC's decision not to review did not indicate agreement or disagreement with the licensee's position. By letter dated November 2, 2001, the licensee submitted Revision 17 to the UFSAR, including a revised Appendix F with a footnote marking the appendix as "historical."

Applicable Regulations

Section 50.71(e) of 10 CFR requires operators of nuclear power plants to "update periodically...the final safety analysis report originally submitted as part of the application for the operating license, to assure that the information included in the report contains the latest information developed." Regulatory Guide (RG) 1.181, "Content of the Updated Final Safety Analysis Report in Accordance With 10 CFR 50.71(e)" was written in response to a recognition that additional guidance regarding compliance with 10 CFR 50.71(e) was necessary. As stated in RG 1.181, "The objectives of 10 CFR 50.71(e) are to ensure that licensees maintain the information in the UFSAR to reflect the current status of the facility and address new issues as they arise, so that the UFSAR can be used as a reference document in safety analyses." RG 1.181 endorses the methods described in Nuclear Energy Institute (NEI) report, NEI 98-03, "Guidelines for Updating Final Safety Analysis Reports," dated June 1999, as acceptable for complying with the provisions of 10 CFR 50.71(e).

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NEI 98-03 provides the following definition of historical information:

"Historical information is that which was provided in the original FSAR to meet the requirements of 10 CFR 50.34(b) and meets one or more of the following criteria:

- information that was accurate at the time the plant was originally licensed, but is not intended or expected to be updated for the life of the plant
- information that is not affected by changes to the plant or its operation
- information that does not change with time."

NEI 98-03 explicitly states that the plant's design bases should not be designated as historical because "the original design bases continue to be part of the overall design bases for the facility, and new information may warrant their update."

Section 50.34(b) of 10 CFR, "Final safety analysis report," states, in part, that, "The final safety analysis report shall include information that describes the facility, presents the *design bases* and the limits on its operation, and presents a safety analysis of the structures, systems, and components and of the facility as a whole..." [emphasis added]

Section 50.2 of 10 CFR, "Definitions," states, in part, that, "Design bases means the information which identifies the specific functions to be performed by a structure, system, or components of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design."

Staff Evaluation

The staff recognizes that NEI 98-03 is not a regulatory requirement and the NRC may determine the acceptability of other methods to meet 10 CFR 50.71(e) on a case-by-case basis. However, Entergy specifically stated that it used the guidance in NEI 98-03 in its determination that Appendix F could be made historical and believed that it fully complied with the industry guidelines (see Entergy's Answer to the New England Coalition's Request for a Hearing, dated September 29, 2004, ADAMS Accession No. ML042820090). By marking UFSAR Appendix F

as historical, the licensee made the decision not to maintain the information as current. In order to determine, in this case, if the licensee met the intent of 10 CFR 50.71(e), the NRC staff, in a letter dated May 13, 2005, requested that Entergy provide the following information:

- Explain how the designation of Appendix F as historical meets the guidance contained in NEI 98-03 and meets the intent of 10 CFR 50.71(e) regarding maintenance of design basis information.
- If a determination is made that the historical designation for Appendix F is not consistent with the regulations, provide a plan and schedule for revising the UFSAR to include current information on the overall design and licensing bases for the facility.

The licensee provided its response in a letter dated June 14, 2005. The response to the first question stated, in part, that:

UFSAR Appendix F was a one-time comparison, performed at the time of original licensing, to demonstrate conformance with the draft GDC. Appendix F contains a discussion of design criteria to which Vermont Yankee's original design conformed, and is thus properly designated as "historical information" consistent with the definition in NEI 98-03. Therefore, the designation of Appendix F as historical information meets the intent of 10 CFR 50.71(e) regarding maintenance of design bases information.

Vermont Yankee, in a letter dated February 14, 1997, provided its response to an NRC request for information, pursuant to 10 CFR 50.54(f), regarding the adequacy of design basis information. That letter included a commitment to perform a verification of the UFSAR. The licensee stated that the UFSAR verification effort is complete and included both an accuracy and completeness verification. The effort used the guidance in NEI 98-03 and verified that the

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applicable design bases requirements were included within the controlled portion of the UFSAR

The licensee's response to the second question stated, in part, that:

 Entergy's review confirmed that there are no regulatory requirements that would require a summary of the conformance to the draft GDCs to be included in the UFSAR. However, the licensee believes that it would be beneficial for their staff to have cross references from the draft GDCs to the various sections of the UFSAR that contain information demonstrating conformance with the applicable draft GDC and the final GDC contained in Appendix A to 10 CFR Part 50 that may have been invoked in the licensing basis.

The licensee committed to provide this information in the next UFSAR update, which will be submitted, in accordance with 10 CFR 50.71(e), within 6 months after completion of the next refueling outage.

The NRC staff agrees with the licensee's statement that there are no regulatory requirements that would require a summary of the conformance to the draft GDCs to be included in the UFSAR. The staff concludes that the designation of UFSAR Appendix F as historical information is consistent with the guidance in NEI 98-03, and would meet the intent of 10 CFR 50.71(e) regarding maintenance of design basis information, if the relevant information, consistent with the definition of "design bases" in 10 CFR 50.2, is contained in other portions of the UFSAR that are updated to reflect current plant design. Following the licensee's next update of the UFSAR to add the cross references mentioned above, the NRC staff will evaluate if any enforcement action is warranted.

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B. <u>Concern 2 - Conformance to Draft GDC</u>

1. Petitioners' Concern

The Petitioners assert that the licensee, or the NRC, must be able to demonstrate how Vermont Yankee conforms with, or deviates from, each of the draft GDC. Absent a documented comparison of Vermont Yankee's design against the draft GDC, the Petitioners claim that the NRC cannot conclude that the plant is in conformance with regulations and therefore, there is no assurance of adequate protection to the general public.

2. Staff's Response

The GDC are referenced in 10 CFR 50.34(a), which specifies information to be submitted for a construction permit. The NRC evaluated each plant against the draft GDC or final GDC as applicable during initial licensing. A prerequisite to the issuance of the operating license was the finding that the facility will operate in conformity with the rules and regulations of the Commission and will not endanger the health and safety of the public. The safety review process, by which changes to a plant and its operating procedures subsequent to initial licensing are evaluated per the criteria of 10 CFR 50.59, provides an adequate basis for concluding that the plant continues to meet the licensing bases. This philosophy was established when the Commission decided not to apply Appendix A (the final GDC) to plants with construction permits issued prior to May 21, 1971. In a Staff Requirements Memorandum dated September 18, 1992, the Commission approved the option of not applying the final GDC to these plants and not requiring such plants to seek exemptions from the GDC. The Commission noted that the regulatory standard for such plants is plant-specific and is documented in the license, the licensing safety evaluation report, and the FSAR. As stated in SECY-92-223, "Existing regulatory processes are sufficiently broad and rigorous to ensure that plants continue to be safe and to comply with the intent of the GDC."

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Consistent with this direction, whenever a change to the licensing or design basis is requested for Vermont Yankee, the NRC review process ensures that changes are reviewed against the relevant design and licensing bases to provide reasonable assurance that the plant continues to meet the intent of the draft GDC. In this way, the NRC maintains assurance that the public is adequately protected.

The NRC has not compiled, and does not require the licensee to compile, a complete list of a plant's current conformance to the draft GDC. The design and licensing bases for any plant reside in many documents. These documents are either submitted to the NRC as part of the formal docket or are available at the plant for review by NRC inspectors.

C. <u>Concern 3 - Implications for NRC Reviews and Inspections</u>

1. Petitioners' Concern

The Petitioners claim that, absent a compilation of the licensee's conformance to the draft GDC, it is impossible for the NRC's pending engineering assessment and its ongoing review of Entergy's EPU application to ascertain critical safety and reliability issues. The Petitioners state that any inspection or assessment is totally meaningless until the design bases are clearly identified.

2. Staff's Response

The NRC Office of Nuclear Reactor Regulation Office Instruction LIC-100, "Guideline for Managing the Licensing Bases for Operating Reactors," provides a description of the various attributes of the elements of the licensing bases for operating reactors. The guideline states that "although the GDC may be viewed as legally binding on licensees (in the absence of an approved alternative design bases), issues associated with licensing, inspection or enforcement are usually tied to more explicit NRC requirements (technical specifications or specific regulations)." Therefore, a compilation of a plant's compliance with the GDC or draft GDC is

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not necessary for the staff to perform licensing reviews or inspections. However, the staff must be able to determine the design basis of a plant in order to perform these reviews and inspections. That design basis information may be obtained through several sources, including the UFSAR, license, orders, calculations, etc. The staff may obtain this information onsite, in docketed information, or through requests for information to the licensee.

The staff's review of the EPU application is based on NRC Review Standard RS-001, "Review Standard for Extended Power Uprates." RS-001 contains guidance for evaluating each area of review in the application, including the specific GDC used as the NRC's acceptance criteria. To aid the staff in its review, the licensee submitted supplements to its EPU application dated October 1 and October 28, 2003. The supplements provided a matrix cross-referencing the design criteria in the Vermont Yankee licensing basis to the final GDC. In a supplement to its application dated January 31, 2004, Entergy provided a revision to the template safety evaluation in RS-001 replacing the numeric values of the GDC with the corresponding Vermont Yankee design criteria and draft GDC that constitute Vermont Yankee's current licensing basis. Related changes to Vermont Yankee-specific design criteria were also incorporated in the revised template. The revision provided by the licensee aids the staff's review of the EPU application using the current licensing basis, including information on the conformance of the proposed EPU to the draft GDC.

Therefore, the NRC does not believe that the information requested by the Petitioners is necessary for the staff to perform a thorough and meaningful evaluation of the EPU application or an effective Engineering Team Inspection.

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D. Concern 4 - Accuracy of Appendix F

1. *Petitioners' Concern*

The summary description in Section F.1 of the UFSAR states that the historic design criteria conformance statements should not be considered current design configuration and that "information regarding application of the General Design Criteria can be found elsewhere in the UFSAR and in other design and licensing basis documents." The Petitioners in their July 29, 2004, letter and in the transcript of the PRB meeting on August 26, 2004, state that the reference to "elsewhere in the UFSAR" is an unsupported and inaccurate statement as the GDC are not discussed in the UFSAR other than in Appendix F.

2. Staff's Response

The text cited by the Petitioners as the basis for the concern is in the last sentence in the following paragraph from UFSAR Appendix F:

"Vermont Yankee has made changes to the facility over the life of the plant that may have invoked the final General Design Criteria as design criteria. Such invocation was not intended to constitute a regulatory commitment, unless specifically docketed as such. Information regarding application of the General Design Criteria can be found elsewhere in the UFSAR and in other design and licensing basis documents."

The staff has determined that, taken in context, the sentence quoted by the Petitioners pertains to the final GDC (i.e., 10 CFR Part 50, Appendix A), not the draft GDC. The staff did an electronic search of the entire UFSAR and found that UFSAR Sections 7.16.4 and 10.20.4 discuss Vermont Yankee's invocation of final GDCs 12 and 19, respectively. In addition, an electronic search of the Vermont Yankee TSs found that final GDCs 60 and 64 are invoked as part of the Bases for TS 3.8.K.

The staff also reviewed a Vermont Yankee internal document, "Design Basis Document [DBD] for Service Water Systems," which was submitted to the NRC as part of the EPU hearing process. Section 2.2 of the DBD contains the regulatory requirements applicable to the systems and discusses conformance to applicable draft GDC as well as several of the final GDC. The staff found information elsewhere in the UFSAR and other design basis documents (e.g., the DBD) and licensing basis documents (e.g., TSs) regarding application of the final GDC consistent with the information in the UFSAR Appendix F paragraph quoted above.

The staff determined that the sentence quoted by the Petitioners is intended to convey that although the design and licensing basis for Vermont Yankee is the draft GDC, there is information elsewhere in the UFSAR and other design and licensing basis documents that may have invoked the final GDC. The staff concludes that the summary description in Section F.1 of the UFSAR is accurate.

E. <u>Concern 5 - Conduct of Engineering Inspection</u>

1. Petitioners' Concern

In their December 8, 2004, letter, the Petitioners express concerns with the conduct of the Engineering Team Inspection. In particular, the Petitioners stated that the condition of Vermont Yankee was reviewed against design drawings and specifications, operating procedures, calculations, Information Notices, Generic Letters, and RGs, and was not reviewed for compliance with NRC regulations, including the GDC. The Petitioners claim that the UFSAR does not reflect the design bases of the plant and, therefore, the use of the UFSAR as the basis for the inspection is inadequate.

In addition, the Petitioners state that the fact that the engineering inspection identified areas of noncompliance supports their contention that the plant is not in compliance with NRC regulations and, therefore, adequate protection of public health and safety is not assured.

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2. Staff's Response

The Commission's regulations in 10 CFR Parts 50 and 100 embody a collection of broad safety principles in addition to a collection of specific safety requirements. Some guidance was needed to augment the broad safety principles in the regulations in order to apply them to the specific design and operation of individual operating licenses. The GDC established criteria for developing the design and performance requirements. These requirements were formalized in regulations and acceptable ways to implement them are described in guidance documents such as Standard Review Plans, RGs, and Branch Technical Positions. Inspectors apply their knowledge of these NRC requirements and guidance documents during inspections.

Regarding the concern about inspection findings, the NRC staff does not agree with the Petitioners' conclusion that findings of noncompliance during an inspection imply that adequate protection of public health and safety is not assured. The NRC regards compliance with regulations, license conditions, and technical specifications as mandatory. However, the NRC also recognizes that plants will not operate trouble-free. This is clearly articulated in Criterion XVI of Appendix B to 10 CFR Part 50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." Criterion XVI states that , "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, and defective material and equipment, and nonconformances are promptly identified and corrected." The NRC's approach to protecting public health and safety is based on the philosophy of defense-in-depth. Briefly stated, this philosophy (1) requires the application of conservative codes and standards, which create substantial safety margins in the design of nuclear plants; (2) requires high quality in the design, construction, and operation of nuclear plants to reduce the likelihood of malfunctions, including the use of automatic safety system actuation features; (3) recognizes that equipment can fail and operators can make mistakes, thus requiring redundancy in safety systems and components to reduce the chances that malfunctions or

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mistakes will lead to accidents that release fission products from the fuel; and (4) recognizes that, in spite of these precautions, unforseen events that could result in serious fuel damage accidents may happen, thus requiring containment structures and other safety features to mitigate the release of fission products off site. Additionally, emergency planning is considered another layer of defense-in-depth. While compliance with the NRC's regulations, as a general matter, provides reasonable assurance that public health and safety will be adequately protected, noncompliance does not necessarily mean that public health and safety is not adequately protected. The NRC must exercise its judgment regarding thresholds for determining the safety of plant operation. Many inspections conducted by the NRC result in findings of noncompliance. NRC's Inspection Manual Chapter 0305 provides an overview of the assessment program for operating reactors. Inspection Manual Chapter 0609 describes the significance determination process used to determine the safety significance of inspection findings. For the large majority of violations the noncompliance is not significant from a risk perspective and does not pose an undue risk to the public health and safety.

III. <u>Conclusion</u>

The NRC staff has reviewed the basis for the Petitioners' requested actions. The staff has concluded that the designation of UFSAR Appendix F as historical information is consistent with the guidance in NEI 98-03, and would meet the intent of 10 CFR 50.71(e) regarding maintenance of design basis information, if the relevant information, consistent with the definition of "design bases" in 10 CFR 50.2, is contained in other portions of the UFSAR that are updated to reflect current plant design. Following the licensee's next update of the UFSAR to add the cross references mentioned in Section II.A of this Director's Decision, the NRC staff will evaluate if any enforcement action is warranted.

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Based on the reasons discussed in Section II of this Director's Decision, the NRC has concluded that the NRC licensing review process provides reasonable assurance that the plant continues to meet the intent of the draft GDC and adequate protection of public health and safety is assured. The NRC also concludes that it did not need a compilation of the Vermont Yankee's current conformance to the draft GDC to review the application for an EPU or to conduct the Engineering Team Inspection (inspection was completed in September 2004). Consequently, the NRC denies the request to issue a demand for information to the licensee.

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

Dated at Rockville, Maryland, this 16th day of August 2005.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

R. William Borchardt, Acting Director Office of Nuclear Reactor Regulation