From: David Vito RT
To: A. Randolph Blough; Brian Holian; Cliff Anderson; Daniel Holody; James Wiggins; Lawrence Doerflein; Richard Crlenjak; Wayne Lanning
Date: 8/20/04 7:23AM
Subject: Re: Fwd: FW: Allegation of wrongdoing by [redacted] - NV

I spoke w/Greg Cwalina in NRR. As they have been handling all other issues directly or indirectly related to the power uprate issue at VY, they have also agreed to take this one.

>>> James Wiggins 08/19/04 02:35PM >>>
Coordinate with NRR and OE to decide how this shouldbe handled.

Appears to be an allegation.

Jim

CC: Jeffrey Teator; Richard Borchardt; Samuel Collins

5-1

Mail Envelope Properties (4124F304.D36 : 10 : 9304)

Subject:	Fwd: FW: Allegation of wrongdoing by [redacted]
Creation Date:	8/19/04 2:35PM
From:	James Wiggins
Created By:	JTW1@nrc.gov

Recipients

nrc.gov
- kp1_po.KP_DO
  - ARB (A. Randolph Blough)
  - BEH (Brian Holian)
  - CJA (Cliff Anderson)
  - DJH (Daniel Holody)
  - DJV (David Vito)
  - JAT CC (Jeffrey Teator)
  - LTD (Lawrence Doerflein)
  - RVC (Richard Crlenjak)
  - SJC1 CC (Samuel Collins)
  - WDL (Wayne Lanning)

nrc.gov
- owf2_po.OWFN_DO
  - RWB1 CC (Richard Borchardt)

Post Office	**Route**
kp1_po.KP_DO	nrc.gov
owf2_po.OWFN_DO	nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	721	08/19/04 02:35PM
Mail		

Options

Expiration Date:	None
Priority:	Standard
Reply Requested:	No
Return Notification:	None
Concealed Subject:	No
Security:	Standard

From: Diane Screnci, RI
To: James Wiggins; Samuel Collins
Date: 8/19/04 11:38AM
Subject: Fwd: FW: Allegation of wrongdoing by [redacted]

I received this today.....

Diane Screnci
Public Affairs Officer
USNRC, RI
610/337-5330

From: "Paul Blanch" <pmblanch@comcast.net>
To: <Vermont_Yankee_Power_Uprate@yahoogroups.com>
Date: 8/19/04 10:18AM
Subject: FW: Allegation of wrongdoing by [redacted]

-----Original Message-----
From: Paul Blanch [mailto:pmblanch@comcast.net]
Sent: Thursday, August 19, 2004 10:08 AM
To: Gregory Cwalina (GCC@nrc.gov)
Subject: Allegation of wrongdoing by [redacted]

Greg:

Enclosed is my allegation that [redacted] may have made sworn, inaccurate, misleading and false statements to the NRC resulting in the NRC providing inaccurate information to the general public.

No confidentiality requested.

<http://www.mymailsignature.com/>

<http://www.mymailsignature.com/?partner=ZGzeb001>

Paul M. Blanch
Energy Consultant

August 19, 2004

Mr. Greg Cwalina
NRR Allegations Coordinator
USNRC
Washington, DC 20005-0001

Subject: Allegation of potential violations of 10 CFR 50.5 and 10 CFR 50.9

Dear Greg:

This letter is a formal allegation regarding sworn statements by [redacted] concerning Vermont Yankee's non-compliance with its operating license. In this letter I have first delineated the chronological timetable of the violations I am alleging. Secondly, I have cited the specific inconsistencies given in sworn statements to the NRC. Third, I have given a summation delineating why this matter needs immediate attention. And, fourth, I have attached copies of pertinent documents.

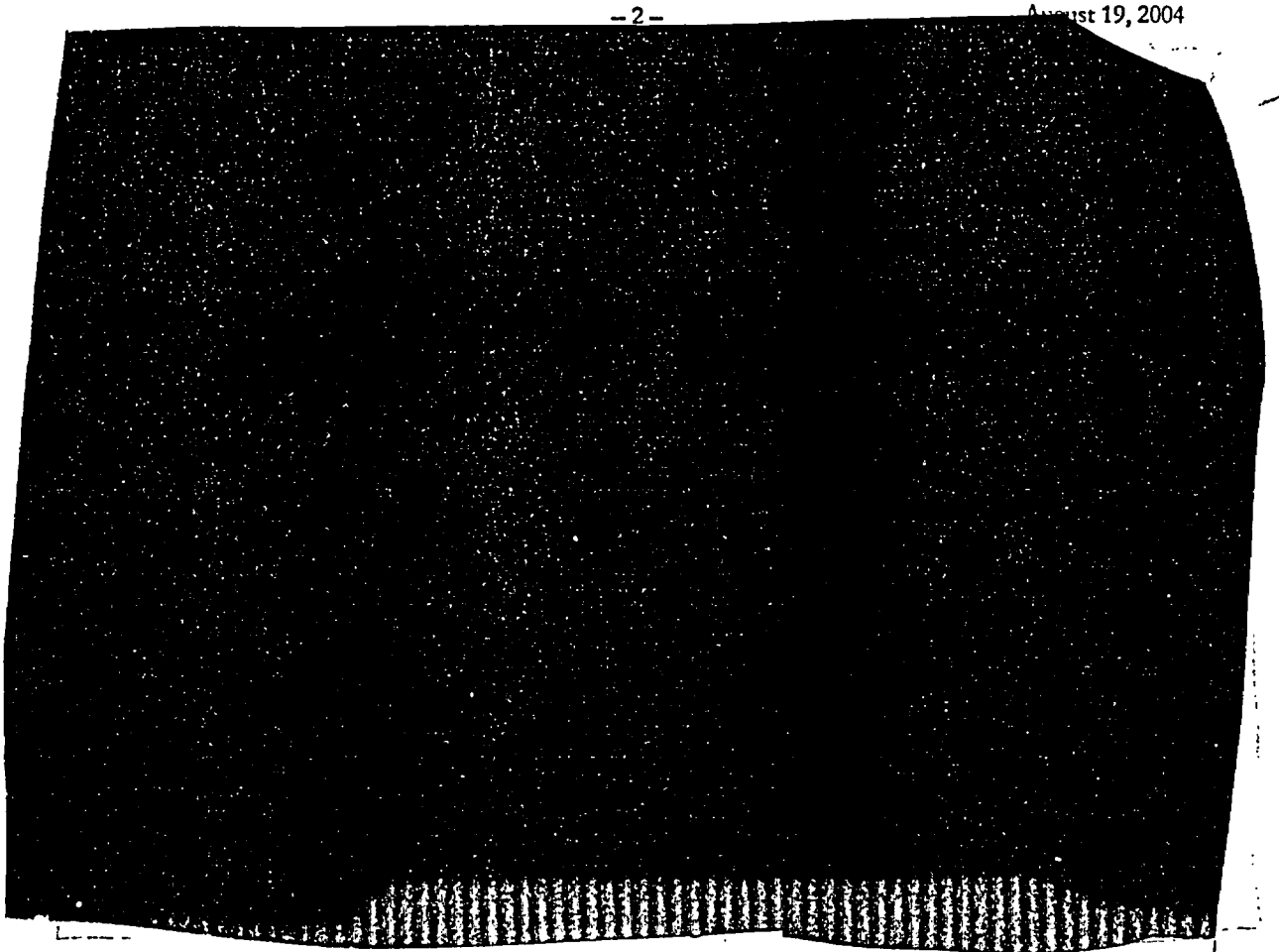
On or about June 15, 2004 I sent an Email to Mr. Rick Ennis, the NRC's Project Manager for Vermont Yankee. In my communication, I informed Mr. Ennis that I was unable to locate where compliance with the General Design Criteria (10 CFR 50, Appendix A) is addressed in the plant's licensing basis and I asked Mr. Ennis to direct me to the location where the General Design Criteria is addressed.

On the same Email to Mr. Ennis, I also copied the State of Vermont's Nuclear Engineer, Mr. William Sherman. Mr. Sherman responded to me on June 16, 2004 stating: "Appendix F of Vermont Yankee's Updated FSAR addresses conformance with the GDC."

On June 25, 2004 Mr. Ennis responded by e-mail: "The VY SAR, Appendix F, addresses conformance to the 70 AEC General Design Criteria (proposed GDC's)"

It appears from these two independent written statements that both the NRC's Project Manager and the State of Vermont believed that conformance with the GDC's is addressed in Appendix F of the UFSAR. A close review of this Appendix clearly shows there is no commitment to comply with any of the General Design Criteria.

I believe that both the NRC and the State of Vermont may have been intentionally misled by sworn statements made by [redacted]. These statements are contained in letters from [redacted] the NRC dated [redacted] and [redacted]



Again, to the best of my knowledge and computer search capabilities, the UFSAR does not address compliance with the GDC's, therefore this may be another incomplete and inaccurate statement.

Further statements contained within Appendix F confirm there are no commitments to either the original draft 70 or the final 62 General Design Criteria. Examples from Appendix F follow:

> *"The original Appendix F information, except cross-reference to applicable FSAR Sections, is retained here for historical significance. Indications of the present or future tense should be understood as being related to the time frame during which this Appendix was originally written.*
>
> ***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. Refer to information elsewhere in the UFSAR and in other design basis documentation to determine current design configuration."*

It appears that [redacted] by his sworn statements is leading the NRC, the concerned public and the State of Vermont down the proverbial "garden path" that leads to a dead

end with no commitment to identify compliance or deviations from the most basic nuclear power plant design criteria.

(a) Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.

It is my belief that the absence of compliance to the General Design Criteria severely compromises the current application to uprate Vermont Yankee's power to 120 percent of its original design. Furthermore, the General Design Criteria would not have been created as a condition of license if indeed the GDCs were not critical to the continued safe operation of any nuclear power plant reactor. Consequently, it is my opinion that such lackadaisical adherence to critical nuclear design safeguards jeopardizes public health I formally request that these allegations be promptly investigated by the NRC's Office of Investigation and safety in the current conditions of continued operation of Vermont Yankee even at 100 percent of power.

Therefore, I formally request that the NRC's Office of Investigation promptly investigate these allegations. I also request that this investigation be independent of the Region 1 Administrator who has knowingly allowed these allegedly false sworn statements to stand without adequate review and has also continued to permit Vermont Yankee to operate without full and complete knowledge of its design and licensing basis.

I am enclosing a copy of all relevant documentation.

Sincerely,

Paul M. Blanch

Paul M. Blanch
135 Hyde Rd.
West Hartford, CT 06117
860-236-0326

§ 50.9 Completeness and accuracy of information.

(a) Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.

(b) Each applicant or licensee shall notify the Commission of information identified by the applicant or licensee as having for the regulated activity a significant implication for public health and safety or common defense and security. An applicant or licensee violates this paragraph only if the applicant or licensee fails to notify the Commission of information that the applicant or licensee has identified as having a significant implication for public health and safety or common defense and security. Notification shall be provided to the Administrator of the appropriate Regional Office within two working days of identifying the information. This requirement is not applicable to information which is already required to be provided to the Commission by other reporting or updating requirements.

[52 FR 49372, Dec. 31, 1987]

§ 50.5 Deliberate misconduct.

(a) Any licensee, applicant for a license, employee of a licensee or applicant; or any contractor (including a supplier or consultant), subcontractor, employee of a contractor or subcontractor of any licensee or applicant for a license, who knowingly provides to any licensee, applicant, contractor, or subcontractor, any components, equipment, materials, or other goods or services that relate to a licensee's or applicant's activities in this part, may not:

(1) Engage in deliberate misconduct that causes or would have caused, if not detected, a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation of any license issued by the Commission; or

(2) Deliberately submit to the NRC, a licensee, an applicant, or a licensee's or applicant's contractor or subcontractor, information that the person submitting the information knows to be incomplete or inaccurate in some respect material to the NRC.

(b) A person who violates paragraph (a)(1) or (a)(2) of this section may be subject to enforcement action in accordance with the procedures in 10 CFR part 2, subpart B.

(c) For the purposes of paragraph (a)(1) of this section, deliberate misconduct by a person means an intentional act or omission that the person knows:

(1) Would cause a licensee or applicant to be in violation of any rule, regulation, or order; or any term, condition, or limitation, of any license issued by the Commission; or

(2) Constitutes a violation of a requirement, procedure, instruction, contract, purchase order, or policy of a licensee, applicant, contractor, or subcontractor.

[63 FR 1897, Jan 13, 1998]

Paul Blanch

From: Sherman, William [William.Sherman@state.vt.us]
Sent: Monday, June 28, 2004 5:15 PM
To: 'pmblanch@comcast.net'
Subject: Your letter to congressional delegation

Paul,

1m disappointed by the three paragraphs below from your letter to the congressional delegation. I'm attaching my message to you that you are quoting. You wondered where VY addressed GDC and in my attempt to be helpful, I identified the location where they are addressed. I didn't represent to you anything about the quality of how they were addressed - only telling 2ou where you should look to see what VY has, because I knew where the section was based on my experience with the FSAR. In the letter, you take my comment out of context 3

-- Bill

Similarly, on June 16, 2004, William Sherman, Vermont's State Nuclear Engineer, said, "Appendix F of Vermont Yankee's Updated FSAR addresses conformance with the GDC."

On the surface, these two statements by authorized regulatory agents appear to indicate that the conformance to the General Design Criterion can be located in this Appendix. Additionally, these statements also indicate that any non-compliance with the General Design Criteria (GDC) would be expected to be addressed within this specific Safety Analysis Report.

In direct opposition to the above statements by regulatory authorities, our review of this Appendix clearly shows that conformance (and non-conformance) with today's or the 1967 draft GDC is not considered within this Appendix to the Uprate Safety Analysis Report (USAR).

-----Original Message-----
From: Sherman, William
Sent: Wednesday, June 16, 2004 1:59 PM
To: 'Paul Blanch'
Cc: Rick Ennis (E-mail)
Subject: RE: Compliance with NRC Regulatory compliance

Thanks, Paul, for sending a copy of this letter to me.

I won't try to answer all the questions for Rick, just the easy ones. No response yet to the Dec 8 letter.

Appendix F of Vermont Yankee's Updated FSAR addresses conformance with the GDC. I think that's the section you are looking for. It has an odd history. It addresses the "70 criteria" instead of the final "64 criteria." I am told it's present form mirrors what was in its original submittal. However, sometime in the FSAR history, it was modified to address the 64 final GDC. Then later it was put back into it's Rev. 0 form. Might be interesting to dig up the 64 criteria section to see what it said, but I don't have it handy.

-- Bill

-----Original Message-----
From: Paul Blanch [mailto:pmblanch@comcast.net]

Summary of Comments on Follow the Yellow Brick Road to GDC Compliance.pdf

Page: 1

Sequence number: 1
Author: Paul
Subject: Highlight
Date: 7/12/2004 11:39:32 AM

Sequence number: 2
Author: Paul
Subject: Highlight
Date: 7/12/2004 11:40:25 AM

Sequence number: 3
Author: Paul
Subject: Note
Date: 7/12/2004 11:43:29 AM
So BS didn't even read Appendix F to determine if they addressed the GDC's! Appendix F clearly stated that the GDC are not requirements and addressed elsewhere in the UFSAR but no cross reference is provided.

Paul Blanch

From:	Rick Ennis [RXE@nrc.gov]
Sent:	Friday, June 25, 2004 3:37 PM
To:	pmblanch@comcast.net
Cc:	shadis@ime.net; Anthony McMurtray; Allen Howe; Brian Holian; Cornelius Holden; Cliff Anderson; David Pelton; Donna Skay; Tad Marsh; Mohammed Shuaibi; Robert Kuntz; Stuart Richards; William Ruland; arniegundersen@sailchamplain.net; dlochbaum@ucsusa.org
Subject:	Re: Compliance with NRC Regulatory compliance

Paul,

A response has not yet been sent to the 12/8/03 letter from Bill Sherman. Here's a response to your other questions:

1) Did the VY SAR originally or at any time address compliance with regulatory criteria as required by RG 1.70 Chapter 1?

The VY UFSAR, Appendix 2 addresses conformance to the 70 AEC General Design Criteria (proposed GDC's).

2) Where can I locate the latest requirements for the content of an SAR? (RG 1.70, NUREG 0800 or Harold Denton's letter to the Commission dated July 23, 1980)?

The requirements for the content of an SAR are contained in 10 CFR 50.34. RG 1.70 and NUREG 0800 do not contain requirements.

RGs are issued to describe and make available to the public such information as methods acceptable to the staff for implementing specific parts of the NRC's regulations, techniques used by the staff in evaluating specific problems or postulated accidents, and guidance to applicants. RGs are not substitutes for regulations, and compliance with RGs is not required. RG 1.70, Revision 3, provides guidance on the format and content of SARs.

The Standard Review Plan (SRP), NUREG-0800, provides guidance to the NRR staff reviewers in performing its safety reviews. Compliance with the SRP is not required.

3) How can I locate a copy of the original SAR Chapter 1 for VY?

I was unable to find it. Suggest you contact the PDR at 301-415-4737.

4) Why have Sections 1 and 2 seemed to have vanished from NUREG 0800?

The sections still exist, however, I'm not sure why they aren't shown on the NRC webpage at: http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800/

I asked the Project Manager who has been working on an office instruction related to the SRP process (Rob Kuntz) to look into this issue.

5) Where can I find the requirements for the SAR?

As stated above, the requirements for the content of an SAR are contained in 10 CFR 50.34. The requirements for SAR updates are contained in 10 CFR 50.71.

Page: 4

Sequence number: 1
Author: Paul
Subject: Highlight
Date: 7/12/2004 10:45:38 AM

T

Sequence number: 2
Author: Paul
Subject: Note
Date: 8/19/2004 9:21:45 AM

One would think that if we go to this Appendix F we would find compliance with the GDC's addressed.
This is a misleading and inaccurate statement.

Paul Blanch

From: Rick Ennis [RXE@nrc.gov]
Sent: Tuesday, June 29, 2004 7:37 AM
To: pmblanch@comcast.net
Cc: shadis@ime.net; Anthony McMurtray; Allen Howe; Brian Holian; Cornelius Holden; Cliff Anderson; David Pelton; Donna Skay; Tad Marsh; Stuart Richards; William Ruland; arniegundersen@sailchamplain.net; dlochbaum@ucsusa.org
Subject: RE: Compliance with NRC Regulatory compliance

Paul,

As discussed in Section F.1 of the Appendix F of the VY UFSAR, the plant was designed and constructed based on the proposed (draft) GDC. Changes have been made to the facility over the life of the plant that may have invoked the final GDC.

I assume you are mostly concerned about the licensing bases related to the proposed EPU amendment. The specific regulatory requirements the NRC uses to review EPU amendments are shown in the template Safety Evaluation (SE) in Review Standard RS-001. For BWRs, the SE template is in RS-001, Section 3.2. The template is based on the final GDC in 10 CFR 50, Appendix A. However, since VY is a pre-GDC plant, we asked Entergy to revise the template to reflect the VY licensing bases. The revised template was provided in Attachment 4 to Entergy's Supplement 4 dated 1/31/04 (ADAMS Accession No. ML040360118). You may also may want to look at Attachment 2 to Entergy's Supplement 1, dated 10/1/03 (ADAMS Accession No. ML032810447) which provided a AEC/GDC matrix. The draft GDC can be found on pages 13 to 17 of ADAMS Accession No. ML003674711.

If your question regarding the VY licensing bases was intended to pertain to more than just the EPU, the licensing bases, for any plant, are located in many documents (e.g., FSAR, Tech Specs, license, orders, QA program, emergency plan, security plan, etc.). A good reference document for this issue is NRR Office instruction LIC-100, "Control of Licensing Bases for Operating Reactors," which is in ADAMS at Accession No. ML033530249.

Thanks,

Rick
301-415-1420

>>> "Paul Blanch" <pmblanch@comcast.net> 06/25/04 08:54PM >>>
Rick:

Thanks for the response. I reviewed Appendix F of the USAR Revision 17 and I assume that VY is in compliance with the 70 draft GDC's unless specifically stated that they are taking exception to these criteria. Is this a proper assumption?

Could you please provide me with a copy of these 70 criteria which VY states it complies with, and is apparently a part of the plant's current licensing bases?

Where can I find a copy of the current licensing bases?

-----Original Message-----
From: Rick Ennis [mailto:RXE@nrc.gov]
Sent: Friday, June 25, 2004 3:37 PM
To: pmblanch@comcast.net
Cc: shadis@ime.net; Anthony McMurtray; Allen Howe; Brian Holian; Cornelius Holden; Cliff Anderson; David Pelton; Donna Skay; Tad Marsh; Mohammed Shuaibi; Robert Kuntz; Stuart Richards; William Ruland; arniegundersen@sailchamplain.net; dlochbaum@ucsusa.org
Subject: Re: Compliance with NRC Regulatory compliance

Paul,

A response has not yet been sent to the 12/8/03 letter from Bill Sherman. Here's a response to your other questions:

Page: 7

Sequence number: 1
Author: Paul
Subject: Highlight
Date: 7/12/2004 10:49:52 AM

T

Sequence number: 2
Author: Paul
Subject: Note
Date: 7/12/2004 11:50:30 AM

We're getting closer. This Attachment is enclosed.

Entergy Nuclear Northeast
Entergy Nuclear Operations, Inc.
Vermont Yankee
322 Governor Hunt Rd.
P.O. Box 157
Vernon, VT 05354
Tel 802-257-7711

January 31, 2004
BVY 04-009

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: **Vermont Yankee Nuclear Power Station**
License No. DPR-28 (Docket No. 50-271)
Technical Specification Proposed Change No. 263 – Supplement No. 4
Extended Power Uprate – NRC Acceptance Review

By letter dated September 10, 2003[1], Vermont Yankee[2] (VY) proposed to amend Facility Operating License, DPR-28, for the Vermont Yankee Nuclear Power Station (VYNPS) to increase the maximum authorized power level from 1593 megawatts thermal (MWt) to 1912 MWt. The request for license amendment was prepared in accordance with the guidelines contained in the NRC-approved, licensing topical report NEDC-33004P-A[3] (referred to as the CLTR). Included with the license amendment request was NEDC-33090P[4] (referred to as the PUSAR), a summary of the results of the safety analyses and evaluations performed specifically for the VYNPS power uprate. Subsequent to the initial application, VY provided a supplement dated October 1, 2003 and two supplements dated October 28, 2003.

NRC's letter dated December 15, 2003[5], provided a status of the NRC staff's acceptance review of the extended power uprate (EPU) application for VYNPS and identified areas where additional details are needed. The attachments to this letter provide the additional information requested by the NRC to consider the application for extended power uprate acceptable.

Attachment 1 to this letter provides additional information describing how items stated in the VYNPS PUSAR were dispositioned based on the CLTR or will be dispositioned as part of the cycle-specific reload evaluation. In addition, information is provided as to the method used by VY to review and provide oversight of engineering products of GE Nuclear Energy (GENE). The information provided in Attachment 1 directly corresponds to those areas identified in paragraphs 1.a, 1.b, and 1.c of NRC's December 15, 2003 letter. The response to Item 1.a references a summary confirmation of PUSAR topics that is provided as Attachment 2 to this letter. Because the information provided in Attachment 2 is

[1] Vermont Yankee letter to U.S. Nuclear Regulatory Commission, "Extended Power Uprate," Proposed Change No. 263, BVY 03-80, September 10, 2003.
[2] Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. are the licensees of the Vermont Yankee Nuclear Power Station.
[3] GE Nuclear Energy, "Constant Pressure Power Uprate," Licensing Topical Report NEDC-33004P-A (Proprietary), July 2003, and NEDO-33004-A (Non-Proprietary), July 2003.
[4] GE Nuclear Energy, "Safety Analysis Report for Vermont Yankee Nuclear Power Station Constant Pressure Power Uprate," NEDC-33090P, September 2003.
[5] U.S. Nuclear Regulatory Commission letter to Entergy Nuclear Operations, Inc., "Vermont Yankee Nuclear Power Station – Extended Power Uprate Acceptance Review (TAC No. MC0761)," December 15, 2003.

A P01

Page: 11

Sequence number: 1
Author: Paul
Subject: Highlight
Date: 7/22/2004 7:49:19 PM
T January 31, 2004
BVY 04-009

deemed to contain proprietary information as defined by 10CFR2.790, that attachment has been designated in its entirety as proprietary information. The specific proprietary information is identified by double underline within double brackets. Attachment 3 to this letter is a non-proprietary version of Attachment 2 with the proprietary information removed.

Attachment 4 to this letter provides a revision to the template safety evaluation in NRC review standard RS-001[6] substituting the plant-specific design criteria and draft General Design Criteria of 10CFR50, Appendix A that constitute VYNPS' licensing basis. The revision will maintain consistency within VYNPS' licensing basis. Changes to the template are identified by change bars in the left-hand margins.

Attachment 5 to this letter is an update to the review matrix that cross-references the criteria of NRC review standard RS-001 for extended power uprates with the information in the VYNPS PUSAR and the NRC-approved CLTR for constant pressure power uprate. "VY Notes" have been added to the matrices to provide additional guidance to direct reviewers to the specific safety analyses and conclusions. Certain information in Matrix 8 is deemed to contain proprietary information as defined by 10CFR2.790. For that reason Attachment 5 has been designated in its entirety as proprietary information. The specific proprietary information is identified by double underline within double brackets. Attachment 6 to this letter is a non-proprietary version of Attachment 5 with the proprietary information removed.

Attachment 7 to this letter addresses steam dryer integrity issues. VY recognizes the importance of these issues and is planning to implement modifications to the dryer during the next refueling outage as described in the attachment. Based on discussions with NRC staff, VY understands that adequately addressing the scope of dryer issues and specific actions identified in GE SIL 644, Rev. 1 will provide sufficient information for the NRC staff to complete its acceptance review in this matter. VY will be responsive to additional information requests throughout the review process. Certain information in Attachment 7 is deemed to contain proprietary information as defined by 10CFR2.790. For that reason Attachment 7 has been designated in its entirety as proprietary information. The specific proprietary information is identified by double underline within double brackets. Attachment 8 to this letter is a non-proprietary version of Attachment 7 with the proprietary information removed.

General Electric Company, as the owner of the proprietary information in Attachments 2, 5, and 7 has executed three affidavits (provided as Attachment 9 to this letter). The enclosed proprietary information has been handled and classified as proprietary, is customarily held in confidence, and has been withheld from public disclosure. The proprietary information was provided to VY in GENE transmittals that are referenced in the affidavits. The proprietary information has been faithfully reproduced in attachments to this letter, such that the affidavits remain applicable. GENE requests that the enclosed proprietary information be withheld from public disclosure in accordance with the provisions of 10CFR2.790 and 9.17.

This supplement to the license amendment request does not change the scope or conclusions in the original application, nor does it change VY's determination of no significant hazards consideration.

If you have any questions, please contact Mr. James DeVincentis at (802) 258-4236.

---

[6] U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, "Review Standard for Extended Power Uprates," (RS-001) Revision 0, December 2003.

Page: 12

Sequence number: 1
Author: Paul
Subject: Highlight
Date: 7/12/2004 10:45:23 AM
T

Sincerely,

Jay K. Thayer
Site Vice President

STATE OF VERMONT)
)ss
WINDHAM COUNTY)

Then personally appeared before me, Jay K. Thayer, who, being duly sworn, did state that he is Site Vice President of the Vermont Yankee Nuclear Power Station, that he is duly authorized to execute and file the foregoing document, and that the statements therein are true to the best of his knowledge and belief.

SALLY A. SANDSTRUM NOTARY WINDHAM COUNTY, VERMONT

Sally A. Sandstrum, Notary Public
My Commission Expires February 10, 2007

Attachments (9)

cc: USNRC Region 1 Administrator (w/o attachments)
USNRC Resident Inspector – VYNPS (w/o attachments)
USNRC Project Manager – VYNPS (two copies/with attachments)
Vermont Department of Public Service (with non-proprietary attachments)

Page: 13

Sequence number: 1
Author: Paul
Subject: Highlight
Date: 7/22/2004 7:49:30 PM

THEN personally appeared before me, Jay K. Thayer, who, being duly sworn,

ITEM 2 – GENERAL DESIGN CRITERIA
(italicized text is from NRC letter of December 15, 2003)

The NRC staff's 12-month review schedule for an EPU request is based on an application using RS-001, "Review Standard for Extended Power Uprates." The NRC staff intends to use the template safety evaluation (SE) in RS-001 when generating a plant-specific SE for the VYNPS power uprate. The template SE provides a draft regulatory evaluation and conclusion for each review area. The NRC staff expected that Entergy would review the template to ensure that it reflects the licensing basis for the plant. Also, you should ensure sufficient technical information is provided so that the NRC staff can verify the regulatory evaluation and develop the technical evaluation to support the conclusion. The template was developed to provide guidance so that the NRC staff review could be completed without extensive requests for additional information.

The NRC staff received your supplements dated October 1 and October 28, 2003, providing a matrix cross-referencing the design criteria within the licensing basis for VYNPS to the General Design Criteria (GDC) in 10 CFR, Part 50, Appendix A. To aid the NRC staff in preparing the plant-specific SE for the VYNPS EPU, please confirm that replacing the numerical values of the GDC in the template regulatory evaluation section of the SE with the corresponding VYNPS design criteria from your matrix would not result in an SE that is inconsistent with the VYNPS licensing basis. If inconsistencies are created by this approach, please provide markups of the template SE in RS-001 identifying and correcting any inconsistencies that would be created.

VY RESPONSE

Because VYNPS is a pre-GDC plant (licensed in March 1972), and its current licensing basis is the 70 proposed General Design Criteria for Nuclear Power Plant Construction Permits (hereinafter referred to as "draft GDC") published in the Federal Register on July 11, 1967 (32FR10213), NRC's template SE for EPU requires modification for application to VYNPS' licensing basis. Appendix F of the Updated Final Safety Analysis Report describes the applicability of the draft GDC to VYNPS.

The final version of the GDC was published in the Federal Register on February 20, 1971, as Appendix A to 10CFR50. Differences between the proposed and final versions of the GDC include a consolidation from 70 to 64 criteria and general elaboration of design requirement details. In general, however, the basic content of the design criteria are consistent between the two versions, and as stated at the time of issuance of the GDC, the Atomic Energy Commission stressed that the final version of the GDC did not reflect new requirements, but were promulgated to more clearly articulate the licensing requirements and practices in effect at the time.

To aid the NRC staff in preparing the VYNPS-specific SE for EPU, VY replaced the numeric values of the GDC in the following, revised template regulatory evaluation section of the SE with the corresponding VYNPS design criteria based on the current licensing basis. Related changes to VYNPS-specific design criteria were also incorporated into the revised safety evaluation template.

Page: 15

Sequence number: 1
Author: Paul
Subject: Highlight
Date: 7/12/2004 10:53:22 AM
T

Sequence number: 2
Author: Paul
Subject: Highlight
Date: 7/12/2004 10:54:44 AM
T

Entergy

Entergy Nuclear Vermont Yankee, LLC
Entergy Nuclear Operations, Inc.
185 Old Ferry Road
Brattleboro, VT 05302-0500

October 1, 2003
BVY 03-90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: **Vermont Yankee Nuclear Power Station**
License No. DPR-28 (Docket No. 50-271)
Technical Specification Proposed Change No. 263 - Supplement No. 1
Extended Power Uprate – Technical Review Guidance

By letter[1] dated September 10, 2003, Vermont Yankee[2] (VY) proposed to amend Facility Operating License, DPR-28, for the Vermont Yankee Nuclear Power Station (VYNPS) to increase the maximum authorized power level from 1593 megawatts thermal (MWt) to 1912 MWt. The request for license amendment was prepared in accordance with the guidelines contained in the NRC-approved, NEDC-33004P-A[3]. Included with the license amendment request was NEDC-33090P[4], a summary of the results of the safety analyses and evaluations performed specifically for the VYNPS power uprate.

To facilitate NRC staff review of the license amendment request, VY is providing as Attachment 1, a review matrix that cross-references NRC review criteria with associated sections of the VYNPS Constant Pressure Power Uprate Safety Analysis Report (i.e., NEDC-33090P). The review matrix is based on the matrices found in NRC's draft review standard RS-001[5] for extended power uprates.

In addition, Attachment 2 contains a matrix of the draft General Design Criteria (GDC) used by the U.S. Atomic Energy Commission to evaluate VY's original request for an operating license, compared to the GDC finally adopted in Appendix A to 10CFR50. As discussed in Appendix F to the Updated Final Safety Analysis Report (UFSAR), VYNPS was not licensed to the final GDC, and conformance with the intent of the draft GDC remains as stated in the UFSAR. Accordingly, the GDC matrix should be used in this context.

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[1] Vermont Yankee letter to U.S. Nuclear Regulatory Commission, "Extended Power Uprate," Proposed Change No. 263, BVY 03-80, September 10, 2003.

[2] Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. are the licensees of the Vermont Yankee Nuclear Power Station.

[3] GE Nuclear Energy, "Constant Pressure Power Uprate," Licensing Topical Report NEDC-33004P-A (Proprietary), July 2003, and NEDO-33004-A (Non-Proprietary), July 2003.

[4] GE Nuclear Energy, "Safety Analysis Report for Vermont Yankee Nuclear Power Station Constant Pressure Power Uprate," NEDC-33090P, September 2003.

[5] U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, "Review Standard for Extended Power Uprates," RS-001 (Draft), December 2002.

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Author: Paul
Subject: Highlight
Date: 7/22/2004 7:49:43 PM
T October 1, 2003
BVY 03-90

Sequence number: 2
Author: Paul
Subject: Highlight
Date: 7/12/2004 10:56:13 AM
T

If you have any questions, please contact Mr. Len Gucwa at (802) 258-4225.

Sincerely,

Jay K. Thayer
Site Vice President

STATE OF VERMONT)
)ss
WINDHAM COUNTY)

Then personally appeared before me, Jay K. Thayer, who, being duly sworn, did state that he is Site Vice President of the Vermont Yankee Nuclear Power Station, that he is duly authorized to execute and file the foregoing document, and that the statements therein are true to the best of his knowledge and belief.

Sally A. Sandstrum, Notary Public
My Commission Expires February 10, 2007

SALLY A. SANDSTRUM NOTARY PUBLIC WINDHAM COUNTY, VERMONT

Attachments

cc: (with attachments)

USNRC Region 1 Administrator
USNRC Resident Inspector – VYNPS
USNRC Project Manager – VYNPS (two copies)
Vermont Department of Public Service

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Author: Paul
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Then personally appeared before me, Jay K. Thayer, who, being duly sworn, did

APPENDIX F

CONFORMANCE TO AEC GENERAL DESIGN CRITERIA

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APPENDIX F
CONFORMANCE TO AEC GENERAL DESIGN CRITERIA

APPENDIX F

CONFORMANCE TO AEC GENERAL DESIGN CRITERIA

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Author: Paul
Subject: Highlight
Date: 7/12/2004 11:26:49 AM

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Sequence number: 2
Author: Paul
Subject: Note
Date: 7/12/2004 11:28:27 AM

Whatever this means. At sometime VY did comply possibly with some of the GDC's, maybe!

F.1 SUMMARY DESCRIPTION

The proposed 70 General Design Criteria for Nuclear Power Plant Construction Permits was published in the Federal Register July 11, 1967 to serve as a guide to the establishment of design criteria and bases for the design and construction of a nuclear power station. The purpose of this appendix as originally submitted was to show that the design and construction of the Vermont Yankee Nuclear Power Station had been performed in accordance with those proposed General Design Criteria.

The final version of the General Design Criteria was published in the Federal Register February 20, 1971 as 10CFR50 Appendix A. Differences between the proposed and final versions of the criteria included a consolidation from 70 to 64 criteria and general elaboration of design requirement details. At the time of issuance, the Commission stressed that the final version of the criteria were not new requirements and were promulgated to more clearly articulate the licensing requirements and practices in effect at the time.

In a Staff Requirements Memorandum on SECY-92-223, the NRC approved a proposal in which it was recognized that plants with construction permits issued before May 21, 1971 were not licensed to meet the final General Design Criteria. The memo recognized that while compliance with the intent of the final General Design Criteria was important, backfitting of these requirements to older plants would provide little or no safety benefit.

Vermont Yankee has made changes to the facility over the life of the plant that may have invoked 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 original Appendix F information, except cross-reference to applicable FSAR Sections, is retained here for historical significance. Indications of the present or future tense should be understood as being related to the time frame during which this Appendix was originally written. 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. Refer to information elsewhere in the UFSAR in other design basis documentation to determine current design configuration.

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Date: 7/12/2004 11:22:13 AM

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Author: Paul
Subject: Highlight
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Sequence number: 3
Author: Paul
Subject: Note
Date: 7/12/2004 11:30:51 AM
Or may have ignored!

Sequence number: 4
Author: Paul
Subject: Highlight
Date: 7/12/2004 11:31:06 AM

Sequence number: 5
Author: Paul
Subject: Highlight
Date: 7/12/2004 11:23:25 AM

Sequence number: 6
Author: Paul
Subject: Note
Date: 8/19/2004 9:43:37 AM
I thought this was all to be in Appendix F? This is what Jay Thayer, the NRC and Sherman told me.

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Author: Paul
Subject: Highlight
Date: 7/12/2004 11:24:18 AM

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Author: Paul
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Date: 7/12/2004 11:32:45 AM

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Author: Paul
Subject: Highlight
Date: 7/12/2004 11:32:51 AM

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Author: Paul

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Subject: Note
Date: 8/19/2004 9:53:47 AM
Maybe we should ask the NRC to provide a cross reference between Appendix F and the other 2300 pages of the UFSAR. Where would one look for non-compliance with the GDC's?

APPENDIX F.2

SUMMARY DESCRIPTION

TABLE OF CONTENTS

1 Appendix F.2 is HISTORICAL - references to other UFSAR Sections may no longer apply.

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T *Appendix F.2 is HISTORICAL – references to other UFSAR Sections may no longer apply.

F.2 CRITERION CONFORMANCE

F.2.1 Group I--Overall Plant Requirements (Criteria 1-5)

The purpose of these criteria is to insure that those systems and components of the station which have a vital role in the prevention or mitigation of consequences of accidents affecting public health and safety are designed and constructed to high quality standards which include consideration of natural phenomena and fire. Also, there must be sufficient surveillance and record keeping during fabrication and construction to ensure that these high quality standards have been met. As the station consists of a single nuclear plant, Criterion 4, Sharing of Systems, is not applicable. It will be seen that the concerns of these criteria have been properly considered throughout the design of the station.

Criterion 1--Quality Standards

A thorough quality assurance program has been undertaken during design and construction of the station to ensure that highest quality standards were used. Applicable codes were used where they were sufficient and more stringent requirements were placed on the design, where available codes were not sufficient. The quality assurance program is presented in Appendix D. The description of the various systems and components includes the codes and standards that are met in the design and their adequacy.

Criterion 2--Performance Standards

Conformance to the structural loading criteria presented in Appendix C insures that those systems and components affected by this criterion are designed and built to withstand the forces that might be imposed by the occurrence of the various natural phenomena mentioned in the criterion, and this presents no risk to the health and safety of the public. The phenomena considered and margins of safety are also given.

Criterion 3--Fire Protection

As described in Subsection 10.11, the materials and layout used in the station design have been chosen to minimize the possibility and to mitigate the effects of fire. Sufficient fire protection equipment is provided in the unlikely event of a fire, and in no case will the ability of the station to be shutdown be compromised by fire.

Criterion 5--Records Requirement

Complete records of the as-built design of the station, changes during operation

[1] Appendix F.2 is HISTORICAL - references to other UFSAR Sections may no longer apply.

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T *Appendix F.2 is HISTORICAL – references to other UFSAR Sections may no longer apply.

and quality assurance records will be maintained throughout the life of the station.

F.2.2 Group II-Protection by Multiple Fission Barriers (Criteria 6-10)

Conformance to these criteria assures, through proper design, that the station has been provided with multiple barriers against the release of or means for the mitigation of the consequences of the release of fission products to the environs and that these barriers remain intact during abnormal operational transients. These criteria also provide for proper containment and barrier against the release of fission products in the event of design basis accidents.

To provide the required protection, the reactor design provides six means of containing, preventing, or mitigating the release of fission products. These are: the fuel barrier, consisting of highly compacted UO_2 fuel, sealed in high integrity Zircaloy cladding, the nuclear process system, the primary containment, the reactor building (secondary containment), the reactor building standby gas treatment system, and the plant stack.

Criterion 6--Reactor Core Design

The basis of the reactor core design, in combination with the station equipment characteristics and nuclear safety systems, is to provide sufficient margins to ensure that fuel damage does not occur during normal operation or as a result of abnormal operational transients. The core design is described in Section 3.0 and analysis of abnormal operational transients is given in Section 14.0. The residual heat removal system and the reactor core isolation cooling system which remove decay heat during normal shutdowns and when the core is isolated from the condenser, are discussed in Section 4.0.

Criterion 7--Suppression of Power Oscillations

The core design alone and the design of the nuclear system including the core have been analyzed to determine if power oscillations could occur. This analysis, which is presented in Section 7.17 "Nuclear System Stability Analysis", shows that all power oscillations are suppressed and no fuel damage would occur.

Criterion 8--Overall Power Coefficient

As indicated in Sections 3 and 7.17, the core is designed to be self-limiting; i.e., an arbitrary increase in core power over the power operating range results in a negative feedback. Thus, the overall power coefficient is negative.

Criterion 9--Reactor Coolant Pressure Boundary (Nuclear System Process Barrier)

The nuclear system process barrier consists of the vessels, pipes, pumps, tubes and similar process components that contain steam, water, gases, and radioactive

[1] Appendix F.2 is HISTORICAL - references to other UFSAR Sections may no longer apply.

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*Appendix F.2 is HISTORICAL – references to other UFSAR Sections may no longer apply.