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April 3, 2008
Docket No. 50-271
BVY 08-016
TAC No. MC 9668

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

- References:
1. Letter, Entergy to USNRC, "Vermont Yankee Nuclear Power Station, License No. DPR-28, License Renewal Application," BVY 06-009, dated January 25, 2006
 2. Letter, USNRC to Entergy, "Safety Evaluation Report Related to the License Renewal of Vermont Yankee Nuclear Power Station," NRY 08-019, dated February 25, 2008
 3. Letter, Entergy to USNRC, "License Renewal Safety Evaluation Report Comments," BVY 07-035, dated May 7, 2007

**Subject: Vermont Yankee Nuclear Power Station
License No. DPR-28 (Docket No. 50-271)
License Renewal Final Safety Evaluation Report Comments**

Dear Sir or Madam,

On January 25, 2006, Entergy Nuclear Operations, Inc. and Entergy Nuclear Vermont Yankee, LLC (Entergy) submitted the License Renewal Application (LRA) for the Vermont Yankee Nuclear Power Station (VYNPS) via Reference 1. After completion of the LRA audit, the Request for Additional Information process and meetings with VYNPS to discuss technical issues, the NRC staff developed and transmitted the final "Safety Evaluation Report Related to the License Renewal of Vermont Yankee Nuclear Power Station," hereinafter referred to as the Safety Evaluation Report (SER), as documented in Reference 2. Entergy has completed a review of the final SER to verify accuracy. Reviewer comments are provided as Attachment 1 to this letter. Attachment 1 provides new comments on the approved SER and references original comments on the draft SER, which were submitted in Reference 3.

This letter contains no new commitments.

Should you have any questions concerning this letter, please contact Mr. Dave Mannai at (802) 451-3304.

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NRR

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

Executed on April 3, 2008.

Sincerely,



Ted A. Sullivan
Site Vice President
Vermont Yankee Nuclear Power Station

enc: Attachment 1

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BVY 08-016
Docket 50-271

Attachment 1

License Renewal Final SER Review Comments

**VERMONT YANKEE NUCLEAR POWER STATION
FINAL SER REVIEW COMMENTS
ATTACHMENT 1**

Note: The section number(s) and page number(s) cited in the following listing correspond to the section number(s) and page number(s) as identified in the final Safety Evaluation Report. Where the comments refer to previous comments by number, those previous comments are contained in the draft SER review submittal.

Comment Number	Section Number(s)	Page Number(s)	Comment
1	1.7	1-12	First paragraph says "three proposed license conditions" when four are listed.
2	2.1.4.1.2	2-10	(Same as previous Comment 25) - First full paragraph, first sentence: "To help facilitate the identification of SSCs in-scope in accordance with the 10 CFR 54.4(a) criteria, the applicant developed a license renewal information system (LRIS) which contained detailed design description information about each plant system and structure and the relevant functions of those systems and structures." LRIS was not used for the scoping of systems and structures. Suggest rewording to the following: To document the identification of SSCs in-scope in accordance with the 10 CFR 54.4(a) criteria, the applicant developed a scoping report (one of the LRPDs) which contained design description information about each plant system and structure and the relevant functions of those systems and structures.
3	2.1.4.1.2	2-17	Fourth line from bottom the word "scop" should be "scope."
4	2.3.1.2.1	2-47	Comments 42 and 43 from the draft SER review were not incorporated.
5	2.3.3.7.3	2-78	Need to add SA and 105 systems to conclusion statement.
6	2.3.3.13B.1	2-106	In bulleted list the item "stainer" should be "strainer".
7	2.3.3.13X.1	2-132	In next to last sentence of paragraph the word "present" should be "preset".

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Comment Number	Section Number(s)	Page Number(s)	Comment
8	2.3.4.1.1	2-137	(Same as previous Comment 52) - Table 2.3.4.1 does not identify the component types in the systems. It is identifying the component types in the MSIV leakage pathway. Not all of these component types are included in each of these systems. Table 2.3.4-1 includes the component types from all of the systems constituting the MSIV leakage pathway.
9	2.4.6.1	2-159	3 rd paragraph, the last bullet item "Fluoropolymers and lubrite sliding surfaces" should be replaced with "threaded fasteners."
10	2.3.3.13Z.1	2-134	In list of component types "strainer casing" should be "strainer housing."
11	2.5.2	2-164	2 nd paragraph, last sentence: X1.E4 should be XI.E4.
12	3.2.2.3.4	3-235	Sentence in middle of last paragraph on page should say, "The staff's evaluations of the applicant's System Walkdown Program and Bolting Integrity Program are documented in SER Sections 3.0.3.1.9 and 3.0.3.2.19, respectively."
13	3.0.1.2	3-4	(Same as previous Comment 59) – In Item 7 the sentence reads, "If there are no corresponding items in the GALL Report, the applicant leaves the column blank in order to identify the AMR results in the LRA tables corresponding to the items in the GALL Report tables." Since leaving the column blank provides no correlation, the last part of this sentence should be a separate sentence that comes first, such as, "In this way, the applicant identified the AMR results in the LRA tables corresponding to the items in the GALL Report tables. If there are no corresponding items in the GALL Report, the applicant leaves the column blank."
14	3.0.3	3-7	(Same as previous Comment 61) – For consistency with other entries in the GALL Report Comparison column of Table 3.0.3-1 "exception" should be plural for the Containment Leak Rate Program as there are two exceptions discussed in referenced section of the SER.
15	3.0.3.1.4	3-25	(Same as previous Comment 75) – 1 st indented paragraph, 3 rd line should state: "plant specific operating experience has" (the word "experience" was left out and "have" should be "has").

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Comment Number	Section Number(s)	Page Number(s)	Comment
16	3.0.3.1.11	3-40	(Same as previous Comment 83) – In the last sentence of the second paragraph under 3.0.3.1.11, delete “for the reduction of dissolved oxygen in treated water” as it is redundant.
17	3.0.3.2.1	3-44	(Similar to previous Comment 88) – Delete the following phrase, “and instructions to notify engineering to perform an opportunistic examination of any buried structure uncovered during excavation of piping” from the paragraph under Enhancement 1, starting, “The staff noted that a ...”. Note that the top paragraph of SER page 3-98 states “The applicant stated that VYNPS will take advantage of inspection opportunities for underground structures that become accessible by excavation. This inspection is already part of the Structures Monitoring Program.” Therefore this inspection was not included in enhancements to the Structures Monitoring Program.
18	3.0.3.2.7	3-57	(Same as previous Comment 98) – The last sentence of the first paragraph of Exception 1 states, “Specifically the exception states:” The word “states” should be “stated”, since the exception no longer exists. This will make it consistent with the preceding sentence.

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Comment Number	Section Number(s)	Page Number(s)	Comment
19	3.0.3.2.11	3-76	<p>(Same as previous Comment 107) – Fifth paragraph on page states, “The staff reviewed the applicant’s procedure acceptance criteria and noted that they allow cracks in poured concrete barriers, fire barriers, concrete block walls, drywall, plaster, silicone foam, pyrocrete, and smoke/gas seals. The staff asked the applicant to justify the plant-specific acceptance criteria’s variance from that recommended by the GALL Report. The applicant responded that this acceptance criteria procedure would be revised to require that any recordable indication be identified and entered into the CAP for evaluation and subsequent action, as described below in Enhancement 1.” Enhancement 1 (SER page 3-79) does not contain these words.</p> <p>Actually, the procedure (OP 4019) does not allow cracks in these components. Rather, the acceptance criteria in the procedure are two-fold.</p> <ol style="list-style-type: none"> 1. If a major crack (degradation or missing component in a fire barrier or fire rated assembly that requires supplemental evaluation to determine its functional impact) exists, it is entered into the CAP for evaluation and subsequent action. 2. If a minor crack (degradation in a fire barrier or fire rated assembly that should be corrected even though the component is considered functional) exists, corrective action is taken directly through a work order, without entering the CAP. <p>Although minor cracks are not entered in the CAP, they are repaired. Therefore, the acceptance criteria are consistent with the acceptance criteria of the GALL report without enhancement.</p>
20	3.0.3.2.11	3-77	<p>(Same as previous Comment 109) – Replace the word “determines” with “determined” in the last paragraph.</p>

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Comment Number	Section Number(s)	Page Number(s)	Comment
21	3.0.3.2.12	3-85	<p>(Same as previous Comment 110) – The footnote states, “NFPA 25 requires that sprinkler heads be replaced or representative samples from one or more sample areas be submitted to a recognized testing laboratory for field services testing. In the VYNPS program a representative sample of sprinkler heads will be submitted to a recognized testing laboratory for services testing. The Staff notes that the VYNPS sprinkler heads inspection program appears to eliminate the option to just replace a sprinkler head after 50 years service unless it first undergoes laboratory testing. This implies that, if a sprinkler head is obviously corroded and requires replacement, the VYNPS may first have to send that sprinkler head to a testing laboratory before replacing it, a seemingly unnecessary burden.”</p> <p>This footnote does not appear necessary, or logical. The reason for testing a sample of sprinkler heads is to provide assurance that the heads are suitable for continued service. This testing does not preclude replacement of an obviously corroded sprinkler head. Testing would not be necessary unless the head is to be returned to service. The footnote should be deleted.</p>
22	3.0.3.2.15	3-92	(Same as previous Comment 114) – The word “determines” should be “determined” in the fourth paragraph.
23	3.0.3.2.15	3-92	(Related to previous Comment 115) – License conditions for Brunswick and Nine Mile Point included references to the BWRVIP Integrated Surveillance Program (ISP). VYNPS also participates in the BWRVIP ISP. Should the VYNPS license condition be similar? In addition, the SER gives as the reason for the license condition to ensure that changes in the withdrawal schedule for the capsule that is specified in the BWRVIP-116 report will be submitted for staff review and approval. However, the license condition as stated on page 3-92 does not address capsule withdrawal schedules; rather it is directed at “storage requirements”. The license condition also refers to Appendix H requirements which likewise don’t appear to address storage of surveillance capsules.
24	3.0.3.3.2	3-121	(Same as previous Comment 125) – In first line of Operating Experience, change “finds” to “found.”

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Comment Number	Section Number(s)	Page Number(s)	Comment
25	3.0.3.3.2	3-125	(Same as previous Comment 127) – In second paragraph of ISI program attribute (4), the SER states, “The applicant also stated that its Inservice Inspection Program manages cracking, loss of preload, loss of material, and reduction of fracture toughness, as applicable, of reactor coolant system components....” However, this was not stated by the applicant. As discussed in SER section 3.0.3.2.19, loss of preload is managed by the Bolting Integrity Program, not the ISI program.
26	3.0.3.3.7	3-141	(Same as previous Comment 139) – In last paragraph of UFSAR Supplement discussion, change “Commitments #26” to “Commitment #26.”
27	3.2.2.1.9	3-217	See draft SER review comment 150. Final paragraph includes the Inservice Inspection Program for managing cracking due to SCC and IGSCC for ESF components. Neither the preceding discussion nor item 3.2.1-18 mentions this program, so it should be deleted from this paragraph.
28	3.3.2.1.25 3.3.2.3.8 3.3.2.3.9 3.3.2.3.10 3.3.2.3.19 3.3.2.3.27	3-281 3-327 3-329 3-335 3-338	The phrase “nonsafety-relates” in these sections should be “nonsafety-related.”
29	3.3.2.3.55	3-346	In the first paragraph “HD 7 HV” should be “HD & HV.”
30	3.3.2.3.69	3-351	In the third paragraph heat exchanger shell should be replaced with pump and turbine casing to be consistent with first paragraph.
31	3.4.2.2.4 (1)	3-383	Change “HPCI and RCICs” to “HPCI and RCIC systems” in second paragraph.
32	3.4.2.1.5	3-375	In the first paragraph first sentence need to delete aluminum. As indicated in the last sentence of the same paragraph, the discussion column for Item 3.4.1-15 did not apply to aluminum in the steam and power conversion system.

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33	Table 3.1-1	3-161	Entry 3.1.1-46 states "consistent with GALL", yet the AMPs in the GALL report are not the same as the AMPs in the VYNPS LRA. Suggest using words from LRA discussion column for this item, that is, "Not applicable. The VYNPS access hole covers are welded, not mechanical (bolted)." This will make the table consistent with the discussion in SER section 3.1.2.3.4.
34	3.6	3-473	Metal enclosed bus should be included as a component subject to AMR, since the iso-phase was included.
35	4.1.1	4-2	Last sentence should end with "as defined by 10 CFR 54.3" instead of "as required by 10 CFR 54.3".
36	4.3.3.2	4-38	In the last paragraph on this page, the sentence "Moreover, it is difficult to determine the threshold <i>for the when</i> shear stresses are negligible." Requires minor rewording.
37	4.3.3.2	4-39	In the fourth paragraph, change the second and third sentences to read: ". . . RR inlet nozzle forging, RR inlet nozzle safe end and FW piping locations (locations 1, 2, 4, 5, 6 and 9 of the September 17, 2007 supplement) . . ." Changes are required to agree with information provided in LRA Amendment 31.
38	4.3.3.2	4-39	In the fourth paragraph, change the fourth sentence to read ". . . (locations 3, 7 and 8 of the September 17, 2007 supplement) . . ." Changes are required to agree with information provided in LRA Amendment 31.
39	4.7.1.1	4-42	Comment 199 from the draft SER review was not incorporated. Fifth and sixth sentences of Section 4.7.1.1 should be revised as follows. "The peak shroud fluxfluence was calculated for the extended power uprate at 9.67×10^{10} n/cm ² -sec. Integration of this fluxfluence and the pre-uprate flux indicates an end of life shroud fluence of 1.5×10^{20} n/cm ² ."
40	App. B	B-11	You may want to update the Amendment 36 listing to include the Accession Number ML080590452.

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Comment Number	Section Number(s)	Page Number(s)	Comment
41	Generic	Various	Generic statement regarding program acceptability reads as follows. "The staff finds the applicant's...Program acceptable because it conformed to the recommended GALL AMP...with exceptions and enhancements." As written, the statement appears to say that the program is acceptable because it has exceptions. A more correct statement would be, "The staff finds the applicant's...Program with enhancements acceptable because it conformed to the recommended GALL AMP...with justifiable exceptions."
42	3.0.3.2.8	3-65	<p>In second paragraph of Staff Evaluation, the second sentence begins "Furthermore, the staff concludes that the applicant's Containment Leak Rate Program provided assurance that aging management...". Providing assurance that aging management is appropriately managed does not seem to be the intended statement. Suggest revising the second and third sentence of the paragraph to read as follows.</p> <p>'Furthermore, the staff concludes that the applicant's Containment Leak Rate Program provided assurance that the effects of aging and other deterioration of the containment leakage limiting boundary are appropriately managed to ensure that postulated post-accident releases are limited to an acceptable level during the period of extended operation. The staff finds the applicant's Containment Leak Rate Program acceptable because it conformed to the recommended GALL AMP XI.S4 with justifiable exceptions.'</p>