March 28, 2005

Mr. Michael J. Meisner
Chief Nuclear Officer
Maine Yankee Atomic Power Company
321 Old Ferry Road
Wiscasset, Maine 04578-4922

SUBJECT: REVIEW OF MAINE YANKEE RESPONSE TO NRC RAI'S ON FSS REPORT NOS. 1 AND 2

Dear Mr. Meisner:

This letter responds to Maine Yankee Atomic Power Company (Maine Yankee) letter MN-05-006, dated February 16, 2005, regarding "Response to NRC RAI's on FSS Final Report Nos. 1 and 2." The staff finds Maine Yankee's response to be inadequate. Detailed comments on Maine Yankee's response are enclosed.

If you have any questions regarding this letter please contact John T. Buckley at (301) 415-7295.

Sincerely,

/RA/

Daniel M. Gillen, Deputy Director
Decommissioning Directorate
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

Enclosure: Comments on Response to
RAIs on FSS Reports 1 and 2

Docket No.: 50-309
License No.: DPR-36

cc: Maine Yankee distribution list

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COMMENTS ON MAINE YANKEE RESPONSE TO NRC RAI'S ON FSS REPORT NOS. 1 AND 2

General Comments

Based on your response, it appears that NRC and Maine Yankee agree on the point that: Maine Yankee agreed to include a statement in the relevant Final Status Survey (FSS) release records that states, "All basement surfaces were remediated to the 30,000 cpm gross gamma activity criterion value to detect and remove contamination at depth..." In accordance with License Termination Plan (LTP) Section 5.9.2, "Survey Unit Release Record," when a release record is approved by Maine Yankee it becomes a quality record. Quality records must be identifiable and retrievable (Part 50, App. B, Sec. XVII). Therefore, Maine Yankee is required to keep the release records and survey data supporting the release records.

NRC has a responsibility to verify statements made by Maine Yankee in the FSS release records. The staff's verification of Maine Yankee's statement, "All basement surfaces were remediated to the 30,000 cpm gross gamma activity criterion value to detect and remove contamination at depth..." is consistent with the staff's understanding of the September 9, 2004, meeting agreement. The staff disagrees with Maine Yankee's clarification regarding the 30,000 cpm criterion as outlined in the Maine Yankee February 15, 2005, letter. Specifically, the staff's response to the six points raised by Maine Yankee in the introduction portion of the February 15, 2005, letter follows.

1. As documented in NRC letters dated October 14, 2004, November 4, 2004, November 30, 2004, and January 7, 2005, the staff has repeatedly informed Maine Yankee that LTP Section 5.5.1, requires surveys and/or sampling of structures, and the cracks and wall/floor interfaces. At the September 9, 2004, meeting, the staff indicated that gamma surveys were a technically acceptable alternative to extensive sampling. As a result, Maine Yankee stated that gamma scans had been completed on all basement surfaces and agreed to state in the relevant FSS reports that, "All basement surfaces were remediated to the 30,000 cpm gross gamma activity criterion value to detect and remove contamination at depth..." to document that the requirements of LTP Section 5.5.1 had been met. Therefore, Maine Yankee's assertion that "Up to this point, [gamma surveys] has not been part of the License Termination Plan" is incorrect.

2. The staff agrees that the 30,000 cpm criterion does not apply to concrete surfaces that no longer exist, bedrock surfaces or metallic surfaces. However, if a concrete wall was removed, the 30,000 cpm criterion does apply to the juncture where the once present wall intersected the still present floor and applies to metallic surfaces where residual radioactivity could migrate beneath the metal (i.e. Containment Building floor).

3. The staff disagrees with Maine Yankee's statement that the 30,000 cpm criterion, "Is not exclusive nor necessary provided other technical means are applied (e.g., technical judgement that an elevated gamma reading is clearly due to adjacent radiation sources, analysis of sampling results, etc.)." If the survey unit release record states that "All basement surfaces were remediated to the 30,000 cpm gross gamma activity criterion value to detect and remove contamination at depth..." then Maine Yankee should have the data to support this statement. If the release record does not include the statement, and provides alternative documentation to demonstrate compliance with LTP Section 5.5.1, the staff has no comment. Technical

judgement is not adequate justification for the lack of gamma scan data. As noted in NRC's letter dated January 7, 2005, the potential for under-building contamination cannot be technically justified or modeled until the extent of the residual activity is determined by actual measurements.

4. The staff does not consider the 30,000 cpm criterion to be qualitative. It is a quantitative number that Maine Yankee stated it met to confirm that no contamination is present at depth.

5. Even though the 30,000 cpm criterion was applied during remediation, it verifies the lack of contamination at depth, which ultimately demonstrates compliance with the LTP. See response No. 1 above.

6. Meeting the 30,000 cpm criterion is the basis for performing beta surveys for the FSS. As stated by NRC in its letter dated January 7, 2005, and restated here to avoid confusion in the future, acceptable gamma survey results provide the justification for performing surface measurements to demonstrate compliance with the dose criteria.

Specific Comments FSS Report No. 1

Category A - Acceptable Gamma Surveys are Documented

1. Survey Units 1, 3, 4, 5, and 6 - Responses acceptable.

2. Survey Unit 8 - Clarification is needed because the Spray Building Survey Map, dated 2/27/03, which was provided as part of your response, shows containment wall values of 3K - 126K cpm across from area P12B.

Category B - Contaminated Concrete Source Removed

1. Survey Unit 2 - Maine Yankee's response does not indicate that gamma surveys were performed after the pump mount curb and RicWil pipes were removed. Please provide this gamma survey data.

2. Survey Units 5 and 6 - Response acceptable.

Category C - Evaluation Performed

As noted in NRC's letter dated January 7, 2005, the potential for under-building contamination cannot be technically justified or modeled until the extent of the residual activity is determined by actual measurements. The evaluation presented in Appendix H of Maine Yankee's response assumes a contamination depth of 15 cm. Maine Yankee's assertion that 15 cm is the expected depth of view of the NAI detector is not adequate justification for this assumption.

In addition, based on Maine Yankee Condition Report (CR) No. 04-126, submitted as Appendix L of the response, it appears that there are many areas in the PAB and Spray Building that did

not receive gamma surveys. Staff is concerned that Maine Yankee did not inform NRC previously that these areas did not receive appropriate FSS surveys and did not include a discussion of these missed areas in its response to NRC RAIs for Supplements 1 and 2.

On November 4, 2004, and November 30, 2004, NRC transmitted RAI's on Maine Yankee's FSS Supplements 1 and 2, respectively. In the RAI, the staff stated that the FSS release records did not include sufficient information to document that wrap-around areas, such as door frames, penetrations and other openings were surveyed. Maine Yankee's responses to the RAIs were dated December 7, 2004, and December 23, 2004. The responses provide adequate information for several wrap-around areas, penetrations and other openings, but fail to address numerous other areas in the PAB and Spray Building which were not surveyed, as documented in CR-04-126. The CR, which was reviewed and approved on December 6, 2004, documents junctures which did not receive gamma surveys and other areas which did not receive FSS. It is unclear why Maine Yankee failed to provide this information earlier.

Specific Comments FSS Report No. 2

1. PAB Survey Unit 1, Grid 437 - Response acceptable.

2. PAB Survey Unit 1, Grids C039, C086, and C087: Maine Yankee's response states, "It was the surveyor's judgement that the reason the scan results were higher than the 30 K cpm gamma scan guideline was due to the shine from the fuel building not from the wall grids themselves... It was not possible to demonstrate that these wall grids met the 30 k cpm guideline without first removing the fuel building tunnel walls. The fuel Building tunnel walls are now being demolished and properly removed. In addition, Maine Yankee will also removed the PAB wall areas associated with wall grid nos C026, C039, C086 and C087 (Appendix J)."

"Surveyor's judgement" is not acceptable justification for the lack of survey data. Upon completion of the remediation activities, please provide the gamma scan data and revised FSS survey data for these areas.

3. PAB Survey Unit 6: The NRC approved DCGLs are listed in LTP Table 6-11. To date, the NRC has not approved a DCGL for bedrock. The building-specific surface/volume ratios referenced in LTP Section 6.6.1 b, pertain to concrete surfaces. Revising the DCGLs requires NRC approval, per LTP Section 1.4.1. The DCGL for bedrock must be submitted to NRC for approval.

4. PAB Survey Unit 10: Maine Yankee's response states, "For the floor grid nos C029 and C064 it was the surveyor's judgement that the reason the scan results were higher than the 30 k cpm gamma scan guideline was due to the shine from the fuel building not from the floor grids themselves... It was not possible to demonstrate that these floor grids met the 30 k cpm guideline without first removing the fuel building tunnel walls. The fuel Building tunnel walls are now being demolished and properly removed. In addition, Maine Yankee will also removed the PAB floor associated with floor grid nos C029 and C064 (Appendix J)."

"Surveyor's judgement" is not acceptable justification for the lack of survey data. Upon completion of the remediation activities, please provide the gamma scan data and revised FSS survey data for these areas.

Appendix J includes two photographs with grid numbers C08 and C038 marked on them. On FSS-RR Map #FA0600-10A, grid C08 is a floor grid in cubical FL-35B (more than 28 meters from grids C029 and C064) and grid C038 is a floor grid approximately 10 meters from grids C029 and C064. It appears that the photos submitted by Maine Yankee do not correspond to the grids in question. Please clarify this apparent discrepancy.

5. PAB Survey Unit 12: See NRC comments on SU6.

6. RAI No. 3: RAI No. 3 deals with Maine Yankee's failure to perform 100% surface scans as required by the LTP for Class 1 areas. Maine Yankee's response references CR No. 04-126 and SU12 surveys dated April 2003. The response states, "As part of the evaluation and followup to the Condition Report, Maine Yankee performed an extent of condition to document any other similar conditions. Some similar instances were identified in PAB SU1, 4, 5, 6 and 12 and the Spray Building." The staff will evaluate CR-04-126 in detail and provide comments at a later date.

Comments on Appendix M, LTP Change, Concrete Remediation Gamma Scans

1. General Comment: The staff disagrees with Maine Yankee's LTP change to eliminate the need for gamma scan documentation. The staff disagrees with Maine Yankee's limitations and conditions on the use of the 30,000 cpm as documented above.

2. The staff plans to evaluate Maine Yankee's 50.59 evaluation justifying the change to LTP Section 4.2.1 and Appendix 4C. The staff will inform Maine Yankee of its evaluation results at a later date. It appears that the effective date of the change to LTP Section 4.2.1 and Appendix 4C, is February 15, 2005. The staff would like to remind Maine Yankee that FSS surveys conducted before this date will be evaluated for compliance with the LTP Revision in effect at the time of the surveys. In other words, FSSs conducted prior to February 15, 2005 (all FSSs and associated release records in Supplement Nos. 1-8) will be evaluated against the requirements of LTP Rev. 3.