

October 14, 2004

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

SUBJECT: MEETING REPORT FOR THE SEPTEMBER 9, 2004, MEETING, WITH
MAINE YANKEE ATOMIC POWER COMPANY (MAINE YANKEE)

On September 9, 2004, U.S. Nuclear Regulatory Commission (NRC) staff members met with representatives of Maine Yankee to discuss the format and content of Maine Yankee final status survey (FSS) release records, and the schedule for Maine Yankee submittal, and NRC review of, remaining FSS release records. Enclosed is the report documenting this meeting.

Questions regarding this letter should be directed to John Buckley at 301-415-6607.

Sincerely,

/RA/

John T. Buckley, Project Manager
Decommissioning Directorate
Division of Waste Management
and Environmental Protection
Office of Nuclear Material Safety
and Safeguards

Enclosure: Meeting Report

Docket: 50-309
License: DPR-36

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DATE	9/20/04	9/20/04	10/05/04	10/07/04	10/14/04

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MEETING REPORT

Date: September 9, 2004

Time: 8:30 a.m. to 1:15 p.m.

Place: U.S. Nuclear Regulatory Commission (NRC)
11545 Rockville Pike
Rockville, MD 20852

Purpose: To discuss the format and content of Maine Yankee Atomic Power Company (Maine Yankee) final status survey (FSS) reports, and the schedule for Maine Yankee submittal, and NRC review of, remaining FSS reports.

Attendees:

NRC

John Greeves
Dan Gillen
Claudia Craig
John Buckley
Bruce Watson
Aby Mohseni
Mark Roberts
John Monninger

Maine Yankee

Mike Whitney
Mike Meisner
George Pillsbury

Others

Eric Abelquist (Oak Ridge Institute
For Science and Education)

Tom Harrison (McGraw-Hill)

Background:

NRC approved Maine Yankee's License Termination Plan (LTP), via License Amendment No. 168, on February 28, 2003. Section 1.4.2 of the LTP describes Maine Yankee's approach for the phased unrestricted release of site property from its Part 50 license, leading to eventual license termination.

The LTP describes a three phased approach for releasing site land and terminating Maine Yankee's license. Phase 1, the release of 641 acres of land associated with Eaton Farm and land north of Ferry Road, was completed on July 30, 2002. Phase 2 includes releasing the remainder of the site not associated with the ISFSI. Phase 3 includes the release of land associated with the ISFSI and termination of Maine Yankee's license.

Maine Yankee submitted FSS reports for 10 survey units in the Spray Building in March 2004, and resubmitted the reports for nine of these units in August 2004. In addition, Maine Yankee submitted FSS reports for 15 additional land area / building footprint survey units, in May 2004.

Enclosure

Discussion:

The meeting was brought to order at 8:30 a.m. Following participant introductions, participants discussed Maine Yankee's submittal schedule, and NRC's review schedule, for the remaining FSS reports. The general time frames associated with reviewing FSS reports were agreed to between NRC and Maine Yankee. NRC developed a review schedule for the remaining Maine Yankee FSS reports (see Attachment 1).

The second major topic for discussion was the format and content of the Maine Yankee FSS reports. Prior to the meeting, NRC provided Maine Yankee the following documents for discussion:

FSS Release Record LTP Compliance Issues (Attachment 2);

1. Comparison of March and August 2004, Survey Alarm Data. FA-1700 FSS Release Record Attachment 3 Investigation Tables 3-1, Containment Spray Building Survey Units 1, 2, 4, 5 (Attachment 3); and
2. FA1700-05 Recommendations for Clarifying the Release Record (Attachment 4).

NRC and Maine Yankee staffs discussed and reached resolution on each of the issues identified in Attachment 2 of this report. The resolution for each Item is presented below.

NRC Comment No. 1

Examples of [Spray Building FSS report] Attachment 1 shortcomings include:

Attachment 1 Section 4.2.1, states that gamma surveys were conducted on all surfaces to detect contamination at depth, however no results of measurements are given other than they were satisfactory. The State of Maine letter of August 12, appears to disagree with these statements. Also, gamma surveys were discussed in the Containment Spray Building Survey Unit 1 March, Revision 0, but were deleted in the August 12, Revision 1.

Resolution

Maine Yankee will revise Attachment 1 of each report to include a statement that says gamma surveys were conducted, identifies the limits/criteria that applied, and the results indicate that release criteria have been met.

NRC Comment No. 2

Examples of [Spray Building FSS report] Attachment 1 shortcomings include:

Attachment 1, Section 5.1.1, discusses correcting ground water intrusion during remediation with sealants. Additional discussion is warranted on how the FSS was completed in the survey units/areas with the sealants and an assessment of any activity found in the areas and the potential for entry into the groundwater.

Resolution

In the Safety Evaluation Report (SER), NRC will note that LTP Section 5.9.3, paragraph 2, contains the content requirements for FSS reports. The SER will also note that in a meeting with NRC on September 9, 2004, Maine Yankee stated that surfaces were dry, uncovered, and free of sealants during the conduct of FSS.

NRC Comment No. 3

Examples of [Spray Building FSS report] Attachment 1 shortcomings include: Attachment 1 Section 5.1.1 contains survey results data dealing with the surveys of the fill materials and ric wil pipe. However, the residual activity is not accounted for in the dose calculations for the Survey Units.

Resolution

This issue was closed after Maine Yankee clarified that the dose associated with the backfill is accounted for in the overall dose assessment demonstrating 10/4 mrem/yr since the backfill has the DCGL for deep soil.

NRC Comment No. 4

LTP Section 5.4.3, Background Reference Areas, states that, "For structure survey units that contain a variety of materials with markedly different backgrounds, a reference area will be selected that has similar materials. If one material is predominate or if there is not too great a variation in background among the materials, a background from a reference area will not result in underestimating the residual radioactivity in the survey unit . . .

In general, Maine Yankee commits to using background reference areas, when possible, that are offsite. If non-contaminated onsite areas are to be used, then Maine Yankee will verify and justify its use by appropriate comparison with samples from appropriate offsite locations." LTP Section 2.4.13(a), Table 2-4, Summary of ICS Material Backgrounds, lists the background for bare concrete and block as an average of 665 dpm /100 cm² as determined from an offsite location.

Resolution

This issue was closed based on Maine Yankee's statement that backgrounds were determined in a manner consistent with a document titled, "The Approach for Dealing With Background Radioactivity for Maine Yankee Final Status Surveys," that was developed by Maine Yankee and approved by NRC in September 2002. Maine Yankee agreed to send a copy of the document to NRC. A copy of the paper, and associated email discussion with NRC staff, was forwarded by Maine Yankee on September 13, 2004.

NRC Comment No. 5

LTP 5.5.1 (a) States that "Volumetric samples analyzed by gamma spectroscopy will detect the presence of radioactivity below the surface.... After analysis, the data will be converted to equivalent surface activity for crack surfaces." This is restated in LTP Section 5.5.1(d).

Resolution

Maine Yankee will revise Attachment 1 to the reports to include; a statement that says that Maine Yankee has completed gamma surveys to analyze cracks and crevices, applicable limits/criteria, the results of gamma surveys, and a determination that the survey unit meets the established gamma criteria.

NRC Comment No. 6

LTP 5.5.1(d) states that, "In situations where remediation has taken place or where residual activity has been detected above background, a representative sample of the contamination within the crack or crevice may be obtained or an adjustment for instrument efficiency may be

made if justifiable. If an instrument efficiency cannot be justified based on the depth of the contamination or other geometry factors, volumetric samples will be collected.

Resolution

Comment resolved based on resolution to Comment 5 above.

NRC Comment No. 7

LTP 5.5.1(b) Sub-Slab Soils states that, “ the floor Slabs remaining in place after demolition (at elevations less than 3 feet below grade) may be evaluated by taking samples immediately adjacent to the slab using split spoon or core sampler depending on the contamination potential. Factors that will be evaluated to determine the need for spoon sampling include: (1) existence of soil under the slab; (2) acceptability of alternate means of identifying the potential for sub-slab contamination, e.g., groundwater sampling; and operational history.”

Resolution

Maine Yankee will revise Attachment 1 to the reports to demonstrate how they meet the requirements of LTP Section 5.5.1 (b). In the revision, Maine Yankee will indicate whether bedrock or soil is beneath the building foundation, how the potential for contamination was evaluated, and how any contamination present was addressed.

NRC Comment No. 8

Structure Scan MDCs are discussed in LTP 5.5.2 and other areas of the LTP.

Resolution

This issue was closed after Maine Yankee clarified that the high background reported is within the bounds of the FSS design parameters, and thus the higher background has no effect on the scan MDC or other survey measurements.

NRC Comment No. 9

When data is adjusted for background, the data is not the same. See spreadsheet provided. The spreadsheet referenced is included in this meeting report as Attachment 3.

Resolution

This issue was closed after Maine Yankee clarified that the direct measurement data provided in the March 2004 and August 2004, FSS report (reproduced in Attachment 3) are different because Maine Yankee identified an inconsistency in the survey probe efficiency number used in the LTP. To address the inconsistency, Maine Yankee revised the reported survey data. No change is required to the FSS report. The inconsistency in the LTP will be corrected in the next revision to the LTP.

NRC Comment No. 10

Show or discuss compliance with the Unity Rule for Class 1 areas.

Resolution

This issue was closed after Maine Yankee clarified that the Unity Rule is addressed in Section E and Table 3-1 of the LTP. No change is required to the FSS report.

NRC Comment No. 11

NRC had the following comments on Supplement 1A.

1. Attachment 2 general comment;

The background-subtracted values presented in Section E (Survey Unit Data Assessment) are often negative. Either the sampling results are already background-subtracted or the background of 0.19 pCi/g is too large.

2. Attachment 2 general comment;

The method used to analyze soil samples should be stated explicitly (e.g., in-situ or laboratory gamma spectroscopy). Similarly, the list of HPGe instruments should include which types of analysis each were used for.

3. Attachment 2 general comment;

Maps and descriptions are not adequate to identify where elevated scan readings were obtained and subsequent investigations performed. The histograms in the plot section of statistical data are lacking sufficient digits on the x axis to evaluate.

4. The design DCGL was 3.2 pCi/g, while the applicable DCGL is 2.39 pCi/g. The cover letter stated that 2.39 pCi/g was used as the evaluation criterion but, examination of the data shows 3.2 (p. 15) or 4.2 (p. 16).

5. In this unit, surface area contamination is converted to specific activity (12.02 pCi/g).

6. More explanation as to the cause (parked vehicles leaking radioactive material) is needed as well as justification as to why only part of the unit was reclassified, and why additional areas were not reclassified as Class 1 or 2.

7. The 100 m² area determined to be Class 1 appears to be small, given that this area appears to have been used by a number of vehicles containing radioactive materials. What other areas were impacted by the vehicles and warrant additional surveys?

8. The justification for the high measurement (FR-1800-1-S016 of 3.49 pCi/g) is attributed to non-plant causes. It would appear that this area was more likely impacted by plant operations (Rad Material Vehicles?) and FR1800 SU1 is mis-classified as Class 3.

Resolution

The resolution of these comments will be addressed by Maine Yankee and resubmitted to the NRC as Supplement 3. Revisions to be made by Maine Yankee will include:

- ▶ a statement that all soil samples are laboratory samples
- ▶ histograms in the plot section of statistical data will include sufficient digits on the x axis
- ▶ the DCGL of 4.2 will be removed (page 16)
- ▶ information about the classification of the Bailey Land Area Class 1 survey unit.

NRC and Maine Yankee staffs also discussed NRC's recommendations for clarifying the release records (Attachment 4). These comments were presented as suggestions which would help technical reviewers to more easily understand Maine Yankee's FSS results, and make the

reviews more efficient. Maine Yankee agreed to consider the suggestions during the preparation of remaining FSS reports.

As a result of discussing Attachment 4, Maine Yankee committed to clarifying the disposition of the areas or features not included in Spray Building survey units as described in Section A of applicable Spray Building release records.

The meeting was adjourned at 1:15 p.m.

Actions:

No action items remaining.

Proposed Schedule for Maine Yankee Final Status Survey Submittal Reviews

Supplement No.	MY Submittal Date	NRC Review Date
1	In-house (rev of general intro to be resubmitted)	10/29/04
1a	In-house (rev of general intro to be resubmitted)	9/28/04
2	9/9/04	11/30/04
3 (resubmittal of 1a)	10/12/04	11/15/04
4	11/16/04	12/21/04
5	12/6/04	2/22/05
6	12/22/04	3/17/05
7	3/9/05	3/23/05