

# Maine Yankee

321 OLD FERRY RD. • WISCASSET, ME 04578-4922

April 13, 2005  
MN-05-017

RA-05-019  
Proposed Change No. 218, Supplement 19

UNITED STATES NUCLEAR REGULATORY COMMISSION  
Attention: Document Control Desk  
Washington, DC 20555

- References:
- (1) License No. DPR-36 (Docket No. 50-309)
  - (2) Maine Yankee Letter to USNRC, MN-04-020, dated March 15, 2004, License Amendment Request: Release of Non-ISFSI Site Land, Proposed Change No. 218
  - (3) Maine Yankee Letter to USNRC, MN-05-006, dated February 16, 2005, Response to NRC RAI's on FSS Final Report Nos. 1 and 2, Proposed Change No. 218, Supplement 14
  - (4) USNRC Letter to Maine Yankee, dated March 28, 2005 Review of Maine Yankee Responses to NRC RAI's on FSS Report Nos. 1 and 2

Subject: Response to NRC RAI on FSS Final Report Nos 1 and 2

On March 15, 2004, Maine Yankee submitted a request for amendment (Reference No. 2) to the facility operating license (Reference No. 1) pursuant to 10 CFR 50.90 and in accordance with the NRC Approved License Termination Plan (LTP) for Maine Yankee, to indicate NRC's approval of the release of the Non-ISFSI site land from the jurisdiction of the license. In support of that request, Maine Yankee supplied the information required in LTP section 1.4.2 and 5.9.3. The land area associated with the license amendment request included the entire non-ISFSI portion of the site land. The dismantlement and survey information for the survey units is being submitted to the NRC in FSS Final Reports.

In Reference No. 3, Maine Yankee responded to NRC RAI's on FSS Final Report Nos. 1 and 2. In Reference No. 4, USNRC provided NRC's review of these responses and requested additional information. This additional information is provided in an attachment to this letter.

As we note in more detail in the attachment, we are concerned with the quality of Reference No. 4 and have scheduled a meeting with Senior NMSS management to resolve remaining open issues.

If you have any questions, please contact me.

Sincerely,



Ted C. Feigenbaum  
President & Chief Executive Officer

NMSS01

**UNITED STATES NUCLEAR REGULATORY COMMISSION**

**Attention: Document Control Desk**

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**Attachment: Maine Yankee Response to NRC Request for Additional Information (RAI)  
Regarding Final Status Survey (FSS) Final Report Nos. 1 and 2**

**cc: Dr. R. R. Bellamy, NRC Region I  
Mr. D. R. Lewis, Esq., Shaw Pittman  
Mr. C. Pray, State of Maine, Nuclear Safety Advisor  
Mr. P. J. Dostie, State of Maine, Division of Health Engineering  
Mr. D. Gillen, NRC Acting Director, Division of Waste Management  
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Mr. S. J. Collins, NRC Regional Administrator, Region I  
Mr. J. Buckley, NRC NMSS Project Manager, Decommissioning  
Mr. M. Roberts, NRC Region I  
Mr. R. Shadis, Friends of the Coast**

## **Maine Yankee Response to NRC Request for Additional Information (RAI) Regarding Final Status Survey (FSS) Final Report Nos. 1 and 2**

### **INTRODUCTION**

Maine Yankee is concerned with the quality of NRC's current RAI on FSS Report Nos. 1 and 2. Rather than moving issues towards resolution, the lack of attention to detail that characterizes the most recent questions has been counter-productive. Increased NRC management oversight is appropriate to ensure quality and efficiency.

NRC's continued inordinate emphasis on the 30k cpm gross gamma activity scan criterion masks the real situation at Maine Yankee. Discounting the mistakes in the RAI (e.g., confusing gamma scan records with beta scan records in CR-04-126), a simple fact remains:

IN THE SPRAY BUILDING, THE LAST DOCUMENTED REMEDIATION  
GAMMA SURVEYS OF ONLY 9 OF 1483 CONCRETE SURFACE GRID  
READINGS EXCEED 30K. SIMILARLY, ONLY 5 PAB REMEDIATION  
GAMMA SURVEYS OUT OF 2570 ARE STILL IN CONTENTION.<sup>1 2</sup>

We are troubled that the inability of the staff to focus on and resolve this central question, combined with continuous mistakes in RAI assumptions, reflects a lack of regulatory understanding similar to circumstances that occurred last year<sup>3</sup>. As a result, we have requested a meeting with reviewers and senior NMSS management to resolve this issue once and for all.

The current round of RAI questions do not address the central issues necessary to close FSS Reports 1 and 2, and are largely based on misreading and misinterpretation that could have been resolved through direct dialogue with Maine Yankee staff.

Detailed responses to the RAI questions follow:

### **General Comments**

Maine Yankee stands by its clarification of the 30k cpm gross gamma activity criterion. Since the application of the criterion is in question only for a very small number of grid areas, we provide only a brief discussion below.

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<sup>1</sup> The small number of areas with documentation not meeting the 30k criterion is remarkable considering that the gamma scan campaign was conducted, as approved in the LTP, under the pre-FSS remediation phase which required little documentation of scan results. Nonetheless, Maine Yankee's prior response provides full disclosure about the gamma scan documentation for the 8 grid areas and an appropriate technical safety basis (see also, additional information in this letter under "FSS Report 1 – Category C – 1<sup>st</sup> paragraph").

<sup>2</sup> All available gamma scans are either in NRC's possession or have been made available to NRC staff.

<sup>3</sup> In response to a "potential 50.59 violation", Maine Yankee noted and the staff did not dispute, that the potential violation "...demonstrates a fundamental misunderstanding of Maine Yankee's License Termination Plan (LTP), MARSSIM, 10CFR50.59 and ALARA." NRC concluded that no violation occurred.

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As previously noted, Maine Yankee agreed to provide a statement<sup>4</sup> concerning the 30K criterion during a meeting with NRC on 9/9/04. At the meeting, we noted the limitations of such a simple statement (e.g., applies to concrete basement surfaces only), some of which were reiterated in our previous RAI response (e.g., records weren't required and may be difficult to retrieve; surveys were not performed to the same standards as FSS surveys). Nonetheless, NRC staff agreed that the use of pre-FSS gamma surveys was one acceptable alternative to other approaches outlined in LTP Section 5.5.1.

The 30k statement was understood to be "shorthand" encompassing all its obvious limitations. The statement cannot be literally interpreted. For instance, the phrase "all basement surfaces" clearly does not include bedrock or metal surfaces or walls/floors that no longer exist, even though they are "basement surfaces" within a literal interpretation. Given its remediation phase genesis, FSS pedigree or rigor beyond DCGL criteria could not be inferred from the statement. Exclusive use of gamma surveys was obviously not intended – using already approved methods in LTP 5.5.1 rather than gamma scans was not prohibited by the statement.

Because Maine Yankee wanted to be accurate and avoid further misunderstandings about the 30k criterion, Maine Yankee prepared a clarification.

At the time of the September, 2004 meeting, the 30k criterion was not a part of the LTP. In particular, LTP 4.2.1 had not yet been updated in accordance with 10CFR50.71(e).

### **SPECIFIC RESPONSES**

#### **NRC Specific Comment on FSS Report No. 1 - Category A - Acceptable Gamma Surveys are Documented - No. 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.*

#### **Maine Yankee Response:**

Spray Building Survey Map, dated 2/27/03 was being provided in response to an RAI regarding Survey Unit No. 9 not Survey Unit No. 8. Survey Unit No. 9, consisted of the vertical wall interfaces (shake spaces) with the Containment Building. Spray Building Survey Maps dated September 3 and 15, 2003, explicitly showed the gamma survey results of these shake spaces. Spray Building Survey Map, dated February 27, 2003 was provided to show the gamma survey results of the Containment Wall up to the interfacing exterior Spray Building wall in the E3B cubicle. In our response (Reference No. 22), we noted the following: "Note that the February 27, 2003 survey shows that gamma scan of the Containment wall right up to the interfacing

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<sup>4</sup> "All basement surfaces were remediated to the 30,000 cpm gross gamma activity criterion value to detect and remove contamination at depth..."

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exterior Spray Building wall in the E3B cubicle was less than 30 k cpm (16 to 24 k cpm).”  
Maine Yankee’s intent with this note was to focus the reviewer’s attention on the relevant piece of information being provided on this map.

The February 27, 2005 map also contained unrelated survey results across from area P12B. This survey data was associated with surfaces contained in Survey Unit No. 6. The gamma surveys associated with this Survey Unit have been previously reviewed by the NRC.

**NRC Specific Comment on FSS Report No. 1 - Category B - Contaminated Concrete  
Source Removed - No. 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 gamma survey data.*

**Maine Yankee Response:**

In Reference No. 13, the NRC referred to a Remediation Survey Gamma Scan of Survey Unit 2, Grid C032 near the pump (heat exchanger) mount curb showing 36,000 cpm. This gamma result is shown on the accompanying map to be probe size (20 cm<sup>2</sup>) at 36 k cpm. Using the dose assessment method described in Category C, a spot contaminated at this magnitude and size would result in a dose of 2.3 E-05 mrem. See Maine Yankee’s answer below on the sensitivity of this dose assessment to the assumed depth of contamination.

Attached (Appendix A) are remediation survey gamma scan results of the concrete surrounding the Ric Wil pipe in Survey Unit No. 2 (interior Spray Building prior to Ric Wil pipe removal). Survey Map dated May 7, 2003 shows the Ric Wil pipe with elevated gamma readings (up to 900k cpm). Survey Map dated June 10, 2003 shows the Ric Wil pipe loaded with lead blankets to shield the radiation from contamination inside the pipe from the concrete surfaces around the pipe which were being surveyed. All of the remediation survey gamma scan results of the concrete surrounding the Ric Wil pipe penetration were less than 30 k cpm. This survey demonstrated that the elevated gamma results were due to the Ric Wil pipe not concrete around the Ric Wil pipe. The Ric Wil pipe was removed as part of the excavation associated with FR-0111 Survey Unit 3 as shown in Appendix B of Reference No. 22. FR-0111 Survey Unit 3 (Map FR0111U3-04), shows ISOCS measurements taken on the exterior Spray Building wall following Ric Wil pipe removal. Maine Yankee has not located a gamma scan result of the interior Spray Building wall following Ric Wil pipe removal.

**NRC Specific Comment on FSS Report No. 1 - Category C - Evaluation Performed - First  
Paragraph**

*As noted in NRC’s letter dated January 7, 2005, the potential for under-building contamination cannot be technically justified 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*

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*view of the NaI detector is not justification for this assumption.*

**Maine Yankee Response:**

Out of the large number of remediation survey gamma scans that were conducted in the Spray Building and the Primary Auxiliary Building, there are a very small number of areas (< 0.3%) of low radioactivity and small areal extent where the documentation has not been located showing a final gamma scan result less than 30 k cpm. Most likely these areas were remediated. However, the purpose of this evaluation was to provide a means of dispositioning these small number of missing records by showing that even if these areas were not remediated, the dose consequences of the last recorded gamma scan results are inconsequential. The evaluation is based upon the expected depth of view of the NaI detector, as a common sense approach to compare against a gamma scan. However, even if the depth of contamination were two orders of magnitude greater, eg. 1.5 meters, the dose consequences would be E-02 mrem/yr. This depth is greater than the thickness of the concrete mat itself. This sensitivity analysis indicates that increasing the contamination depth assumption by two orders of magnitude results in an insignificant dose consequence.

**NRC Specific Comment on FSS Report No. 1 - Category C - Evaluation Performed -  
Paragraphs 2 and 3**

*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 RAI's 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.*

**Maine Yankee Response:**

NRC stated that based on CR No. 04-126, that it appears that there are many areas in the PAB and Spray Building that did not receive gamma surveys. This is incorrect. The subject of CR

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No. 04-126 was missing beta scan documentation on juncture surfaces<sup>5</sup> in PAB SU 5 and 12. CR No. 04-126 was not the subject of missing gamma scans. In Reference No. 22 (Appendix L), Maine Yankee provided gamma scans for the small number of areas where there was missing beta scan documentation on juncture surfaces and interferences.

NRC expressed a concern 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 RAI's for Supplements 1 and 2. This is incorrect. In Maine Yankee's first response to an RAI on this Condition Report, Maine Yankee informed the NRC of the results of the extent of condition.

On December 23, 2004 (Reference No. 18), Maine Yankee responded to NRC RAI # 3 on FSS Report No. 2. In this response, Maine Yankee made the following statement:

“An extent of condition review was performed on survey data for the entire Primary Auxiliary Building and the Spray Building. This review identified relatively small areas of surfaces related to interferences that may not have received 100% (beta) scan. These areas represent a very small fraction of the survey surface area, but are documented and evaluated in the CR closure package.”

At that time, Maine Yankee provided the substance of the CR closure package evaluation in its response to the RAI. On January 19, 2005 (Reference No. 20), NRC provided its evaluation of the Maine Yankee RAI responses and closed the RAI on PAB SU 5 due to acceptable gamma survey the associated junctures. On February 16, 2005 (Reference No. 22), Maine Yankee provided gamma surveys of the grids for PAB SU 12 and other PAB areas where there were missing beta scan juncture surveys as identified in the CR closure package extent of condition review.

The NRC stated that Maine Yankee failed to address numerous other areas in the PAB and Spray Building. Maine Yankee did identify and address these other areas in the PAB and Spray Building in the first response (Reference No. 18) and with additional information beyond the CR closure evaluation in Reference No. 22.

The NRC repeated its statement that the CR documents junctures which did not receive gamma surveys. As indicated above, this is incorrect. The CR documented missing beta scans not gamma scans.

The NRC repeated its concern that Maine Yankee failed to provide this information earlier. As indicated above, Maine Yankee informed the NRC of the results of the extent of condition review in the first response to an RAI on the CR.

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<sup>5</sup> The concrete interfaces are typically scanned using both 43-68 (FSS Phase) and SPA-3 (Remediation Phase) detectors right up to the joint. Both of these scans are capable of detecting elevated measurements which need to be investigated further. As an added measure of conservatism, MY developed a reduced efficiency technique for performing an additional scan of junctures with the 43-68 detector held at a 45 degree angle over the interface. This technique has a much lower efficiency (0.06 vs 0.13) due to the distance between the detector and the inaccessible joint itself.

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In addition to being factually incorrect, this RAI does not request additional information from Maine Yankee, it simply makes statements with which Maine Yankee disagrees. As indicated above, Maine Yankee has submitted to the NRC sufficient information to resolve this item.

**NRC Specific Comment on FSS Report No. 2 - Comment No. 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.*

**Maine Yankee Response:**

Surveyor judgement was necessary to guide remediation activities. In this instance, if surveyor judgement was not allowed to be used, remediation of the PAB surfaces would have continued ad infinitum since the source of radiation was not in the PAB surfaces, but in the fuel building tunnel. The issue has never been whether surveyor judgment is an acceptable justification for the lack of survey data; but rather to what extent was remediation data required to be maintained. In this case, surveyor judgement during the remediation phase was a practical necessity to completing the remediation. Furthermore, NRC recognizes the role played by surveyor judgement in scanning. NUREG/CR-6364, "Human Performance in Radiological Survey Scanning," (Reference No. 26 ) provides a complete discussion of the human factors as they relate to the performance of scan surveys.

Maine Yankee is perplexed by the NRC's evaluation of our response to this RAI, since Maine Yankee discussed its plans to address the PAB concrete surfaces associated with the grids. Accordingly, attached (Appendix B) are the gamma scans of these concrete floors and walls (concrete wall grids have been almost completely removed).

**NRC Specific Comment on FSS Report No. 2 - Comment No. 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.*

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**Maine Yankee Response:**

The issue of bedrock has already been raised and resolved by the NRC.

As we noted in our prior response (Reference No. 22), the LTP does not provide a bedrock DCGL because bedrock inhibits the transport of cobalt and cesium sufficient to prevent any significant groundwater contamination. Specifically, we noted:

“Maine Yankee evaluated the fate and transport of Cs-137 and Co-60 contamination through bedrock at Maine Yankee with known groundwater chemistry parameters. The evaluation concluded that negligible Co-60 would be transported because the Co-60 would irreversibly co-precipitate with iron on rock surfaces. The evaluation also concluded that Cs-137 would have a finite but low mobility within the bedrock. Finally, the evaluation constructed a worst-case scenario and predicted relatively low concentrations of Cs-137 in a postulated residential well. Maine Yankee submitted this evaluation as part of the LTP by reference to the NRC on August 28, 2002, MN-02-037 “Maine Yankee Addendum Report Regarding Site Hydrogeology.”

Based on the above, Maine Yankee did not include a bedrock DCGL in the LTP nor identify it as a source of contamination in the resident farmer’s dose model – all of which was approved by NRC on February 28, 2003 (Reference No. 4).

As the effect of bedrock on contamination transport has already been addressed and accepted by the NRC, we request NRC withdraw this request.

**NRC Specific Comment on FSS Report No. 2 - Comment No. 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 the 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.*

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**Maine Yankee Response:**

Appendix J of Reference No. 22 included two photographs which showed the uncovered walls of the PAB which interface with the fuel building tunnel. These pictures were intended to show the current status of fuel building tunnel demolition up to the interface with the PAB and provide the NRC with confidence that Maine Yankee intended to uncover/demolish/survey the grids (SU 1 wall grid nos. C039, C086 and C087 and SU 10 floor grid nos. C029 and C213) which could not be surveyed because of the shine from the fuel building tunnel. Wall grid no. C038 (next to C038 - indicating that C039 had already been demolished) and wall grid no. C087 are shown on FSS-RR Map FA0600-01B. The last digit of wall grid no. C087 was defaced by the excavator. (There is no grid no. C08, since all grids have three digit numbers following the material designator...in this case "C" for concrete.) As indicated in the above Maine Yankee response to NRC Specific Comment on FSS Report No. 2 - Comment No. 2, the gamma scan results for the removed surfaces are provided in Appendix B.

**NRC Specific Comment on FSS Report No. 2 - Comment No. 5**

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

**Maine Yankee Response:**

See above Maine Yankee response to NRC Specific Comment on FSS Report No. 2 - Comment No. 3

**NRC Specific Comment on FSS Report No. 2 - Comment No. 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.*

**Maine Yankee Response:**

As discussed above, Maine Yankee provided (Reference No. 22) gamma scans for the areas where there was missing documentation of beta scans on junctures or interferences. Maine Yankee requests prompt review of the information provided in Reference No. 22.

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**NRC Specific Comments on Appendix M, LTP Change, Concrete Remediation Gamma Scans - Comment No. 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.*

**Maine Yankee Response:**

Maine Yankee's LTP change did not "eliminate the need for gamma scan documentation".

While the NRC staff may disagree with Maine Yankee's clarification on use of the 30k criterion, the disagreement has no regulatory basis. The purpose of 10CFR50.59 is simply to distinguish between license basis changes that require NRC approval and those changes that can be made under the authority granted by 10CFR50.59 to the licensee.

**NRC Specific Comments on Appendix M, LTP Change, Concrete Remediation Gamma Scans - Comment No. 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.*

**Maine Yankee Response:**

NRC indicates that they intend to review the 50.59 evaluation justifying the LTP change. To assist the staff, we note that the LTP change did not have a "50.59 evaluation", rather it was "screened" as a clarification<sup>6</sup>.

Since the LTP change is a clarification, it has no effective date. The clarification reflects our intent during the meeting in September, 2004. And, as noted above, the 30k statement cannot stand on its own since it has obvious logical limitations, and was only intended as a "shorthand" statement. In any case, the statement was not part of the LTP and is moot from the viewpoint of LTP compliance.

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<sup>6</sup> NRC staff may wish to refer to NEI 96-07, "Guidelines for 10 CFR 50.59 Implementation", for the difference between a "50.59 evaluation" and a "screening". NEI 96-07 has been endorsed by the NRC.

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### **CONCLUSION**

Finally, NRC does not object to Maine Yankee's response to FSS Report No. 2 – RAI No. 5 related to confirmatory surveys. We conclude, therefore, that our response is acceptable and that RAI No. 5 for FSS Report No. 2 is closed.

Maine Yankee remains concerned that NRC's misunderstanding of the LTP, 10CFR50.59, licensee submittals and documents already in your possession have led to confusion and delay in NRC's FSS review process. It is for this reason that Maine Yankee requests senior NRC management presence at a meeting on 4/22/05 in your offices to resolve all outstanding matters without further delay.

### **References**

1. Maine Yankee Letter to USNRC dated January 16, 2002, MN-02-002, Transuranic and other Hard to Detect Radionuclides in Maine Yankee Sample Media
2. Maine Yankee Letter to USNRC, MN-02-037, dated August 28, 2002, Maine Yankee Addendum Report Regarding Site Hydrogeology
3. Maine Yankee Letter to USNRC, MN-02-048, dated October 15, 2002, Revision 3, Maine Yankee's License Termination Plan
4. USNRC Letter to Maine Yankee dated February 28, 2003, Issuance of Amendment No. 168 to Facility Operating License No. DPR-36 - Maine Yankee Atomic Power Station - Approval of the MY License Termination Plan
5. Maine Yankee letter to the USNRC, MN-03-049, dated September 11, 2003, Proposed Change: Revised Activated Concrete DCGL and More Realistic Activated Concrete Dose Modeling - License Condition 2.B.(10), License Termination; Proposed Change No. 216.
6. USNRC Letter to Maine Yankee dated February 18, 2004, Issuance of Amendment No. 170 to Facility Operating License No. DPR-36 - Maine Yankee Atomic Power Station - Approval of the Revised Activated Concrete DCGL and More Realistic Activated Concrete Dose Modeling
7. Maine Yankee Letter to USNRC, MN-04-020, dated March 15, 2004, License Amendment Request: Release of Non-ISFSI Site Land, Proposed Change No. 218
8. Maine Yankee Letter to USNRC, MN-04-044, dated August 12, 2004, Release of Non-ISFSI Site Land - Resubmittal of FSS Final Report No. 1, Proposed Change No. 218, Supplement 2
9. Maine Yankee Letter to USNRC, MN-04-047, dated September 2, 2004, License Amendment Request - Release of Non-ISFSI Site Land, Proposed Change No. 218, Supplement 3
10. USNRC Letter to Maine Yankee dated October 14, 2004, Meeting Report for the September 9, 2004, Meeting with Maine Yankee Atomic Power Company (Maine Yankee)
11. Maine Yankee Letter to USNRC, MN-04-049, dated September 15, 2004, Release of Non-ISFSI Site Land - FSS Final Report No. 2, Proposed Change No. 218, Supplement 4.
12. Maine Yankee Letter to USNRC, MN-04-053, dated October 14, 2004, Release of Non-ISFSI Site Land - Addendum to FSS Final Report No. 1, Proposed Change No. 218, Supplement 6

**Maine Yankee Response to NRC Request for Additional Information (RAI) Regarding  
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13. USNRC Letter to Maine Yankee dated November 4, 2004, Request for Additional Information (RAI) Regarding Final Status Survey (FSS) Supplement Nos. 1 and 3
14. USNRC Letter to Maine Yankee dated November 30, 2004, Request for Additional Information (RAI) Regarding Final Status Survey (FSS) Supplement No. 2.
15. Maine Yankee Letter to USNRC, MN-04-058, dated December 7, 2004, Response to NRC RAI's on FSS Report Nos. 1 and 3, Proposed Change No. 218, Supplement 8
16. Maine Yankee Letter to USNRC, MN-04-059, dated December 7, 2004, Release of Non-ISFSI Site Land - FSS Final Report No. 5, Proposed Change No. 218, Supplement 9
17. Maine Yankee Letter to USNRC, MN-04-060, dated December 22, 2004, Release of Non-ISFSI Site Land - FSS Final Report No. 6, Proposed Change No. 218, Supplement 10
18. Maine Yankee Letter to USNRC, MN-04-061, dated December 23, 2004, Response to NRC RAI's on FSS Report No. 2, Proposed Change No. 218, Supplement 11
19. USNRC Letter to Maine Yankee dated January 7, 2005, Receipt of Maine Yankee's Response to Request for Information on Final Status Survey Report Supplements 1 and 3
20. USNRC Letter to Maine Yankee dated January 19, 2005, Request for Additional Information (RAI) Regarding Final Status Survey (FSS) Supplement No. 2
21. Maine Yankee Letter to USNRC, MN-05-001, dated January 20, 2005, Release of Non-ISFSI Site Land - FSS Final Report No. 7, Proposed Change No. 218, Supplement 12
22. Maine Yankee Letter to USNRC, MN-05-006, dated February 16, 2005, Response to NRC RAI's on FSS Final Report Nos. 1 and 2, Proposed Change No. 218, Supplement 14
23. Maine Yankee Letter to USNRC, MN-05-007, dated February 17, 2005, Release of Non-ISFSI Site Land - FSS Final Report No. 8, Proposed Change No. 218, Supplement 15
24. Maine Yankee Letter to USNRC, MN-05-008, dated February 23, 2005, Release of Non-ISFSI Land - FSS Final Report No. 8 - Attachment I, Figure 1 and 2 and Attachment II Header Page, Proposed Change No. 218, Supplement 16
25. USNRC Letter to Maine Yankee dated March 13, 2005, Request for Additional Information (RAI) Regarding Final Status Survey (FSS) Supplement No. 5
26. NUREG/CR-6364, "Human Performance in Radiological Survey Scanning," December 1997

**Appendix A**

**Final Remediation Survey Gamma Scan**

**For**

**Spray Building (FA-1700) Survey Unit No. 2**

**West Side Ric Wil Pipe (E3A Cubicle)**

**dated May 7, 2003 and June 10, 2003**

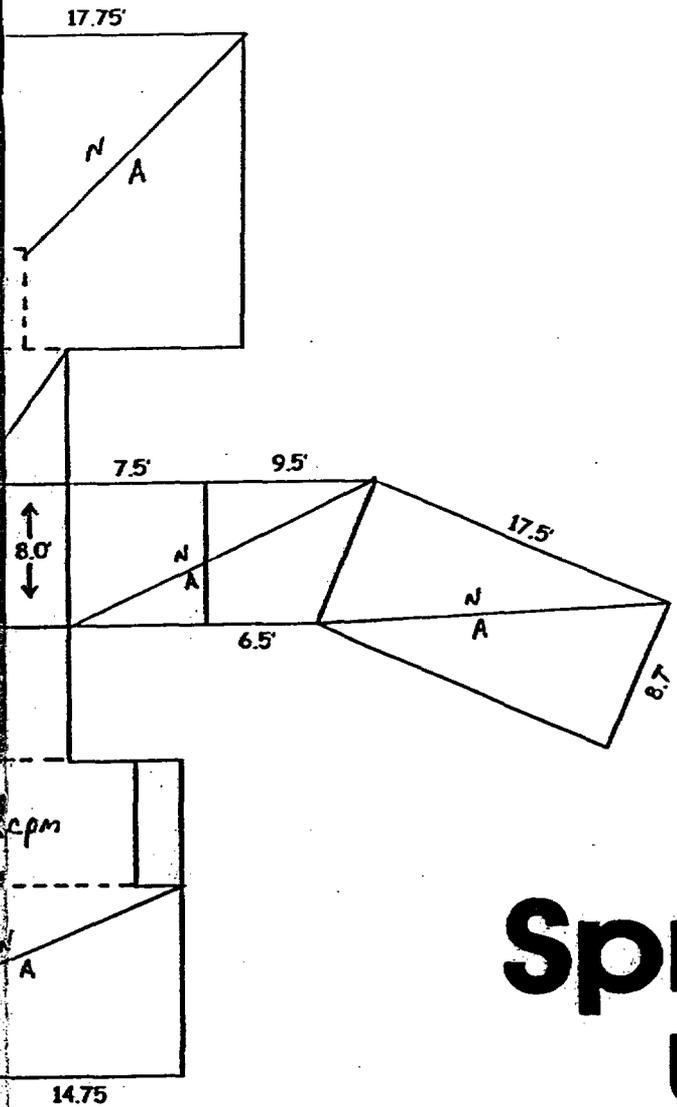
Map#: FA1700-02 Date: 5/7/03 Time: 1600 Reactor Pwr %: N/A Tech File Number: 19.500.1 RWP's Used: NA Dose Received: 0 mR

Surveyor Name: (Printed) ARTHUR L. HAMMOND Surveyor Name: (Signature) *Arthur L. Hammond* Location/Job Description: SPRAY BUILDING POST REMEDIATION

Required R.P. Review / Date: *Arthur L. Hammond* 6/22/03 5/8/03 Required ALARA Supervisor Review / Date: NA REASON FOR SURVEY: ROUTINE, JOB-COVERAGE, SHIELDING, OTHER (Specify): REMEDIATION

INSTRUMENTS USED				CONTAMINATION RESULTS								KEY:
MODEL	SERIAL #	CAL DUE	MDA	SAMPLE #	RESULTS	SAMPLE #	RESULTS	SAMPLE #	RESULTS	SAMPLE #	RESULTS	
E600	1933	8-3-03	NA									● Contact exposure rates denoted by: *
SSPA3	726560	9-13-03	NA									● Smear locations denoted by: ⊙
												● Boundaries or barriers denoted by: -x-x-
												● Dose rates denoted by: $\mu$
												● Large area smears denoted by: $\square$
												● Air sample location denoted by: $\square$ ASZ
Sample Continuation Sheet Used. <input type="checkbox"/> YES												

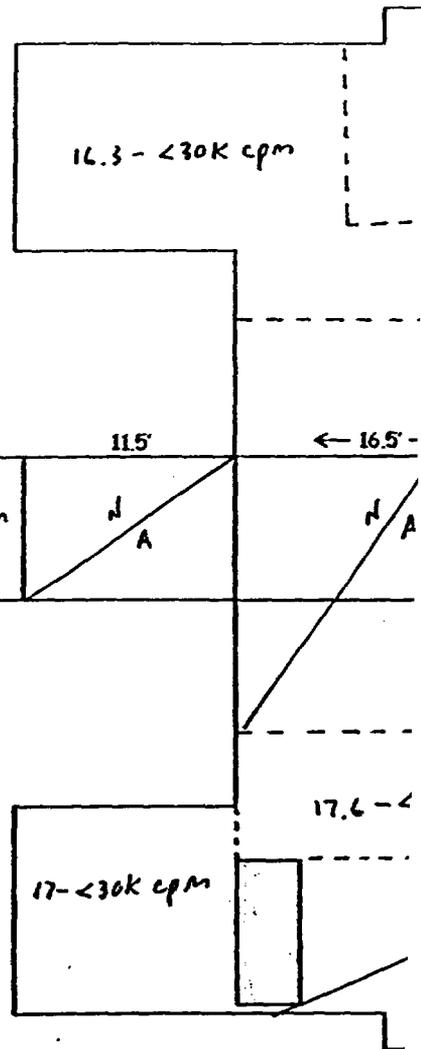
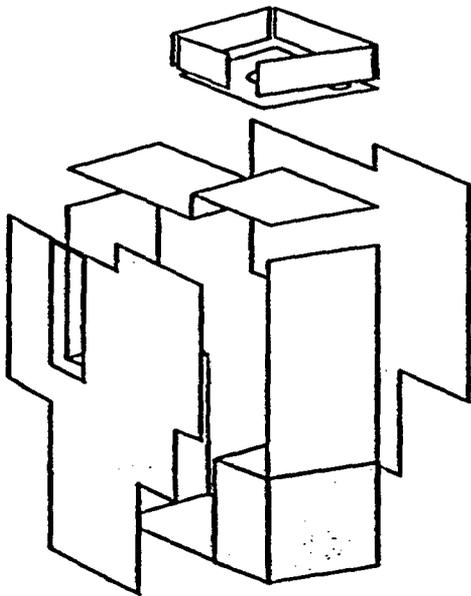
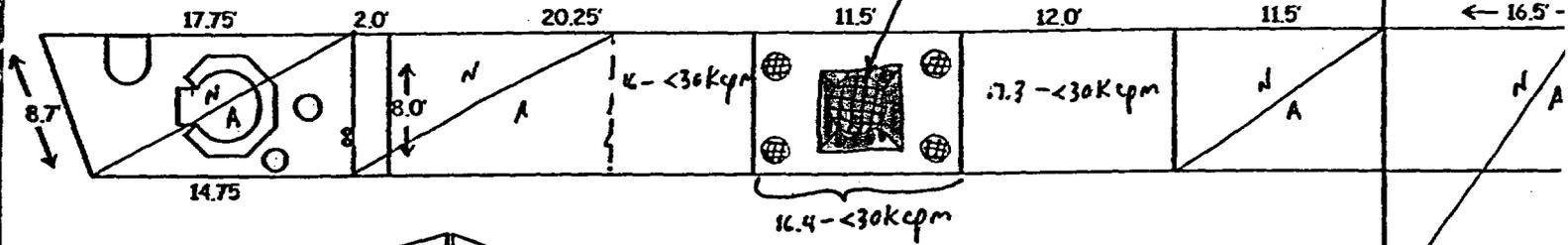
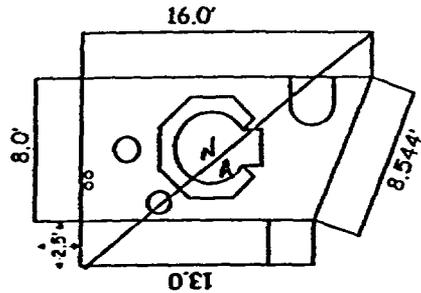
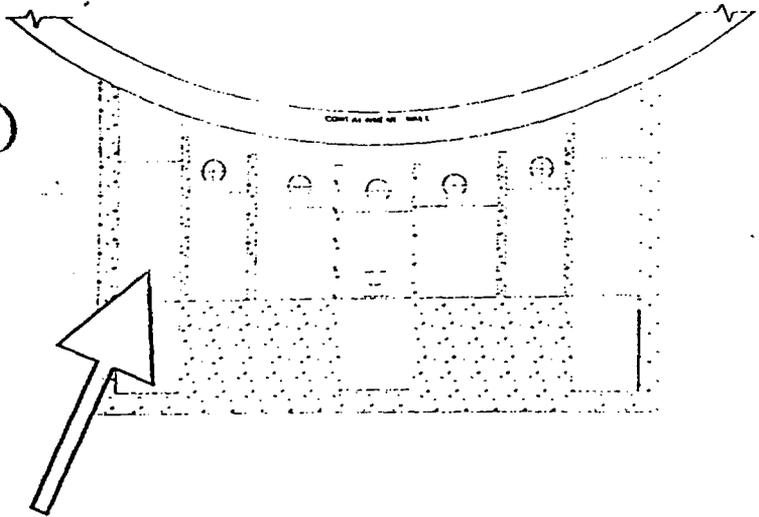
AREA POSTED: RMA



NA - AREAS NOT SURVEYED  
⊙ - PENETRATIONS

**COPY**

**FA-1700**  
**Spray Building**  
**Unit 2 (E-3A)** 5/7/03  
Surface Area 236.40 m<sup>2</sup>



**MAINE YANKEE GENERAL SURVEY RECORD FORM**

Map#: MSC-001    Date: 4/10/03    Time: 1300    Reactor Pwr %: *D*    Tech File Number: 19,500-1    RWP's Used: *N/A*    Dose Received: *0* mR

Surveyor Name: (Printed) *E.F. Murphy Jr*    Surveyor Name: (Signature) *E.F. Murphy Jr*    Location/Job Description: *Area Around Penetration. SPRay Building, Cube 3A, Above-4' Shelf*

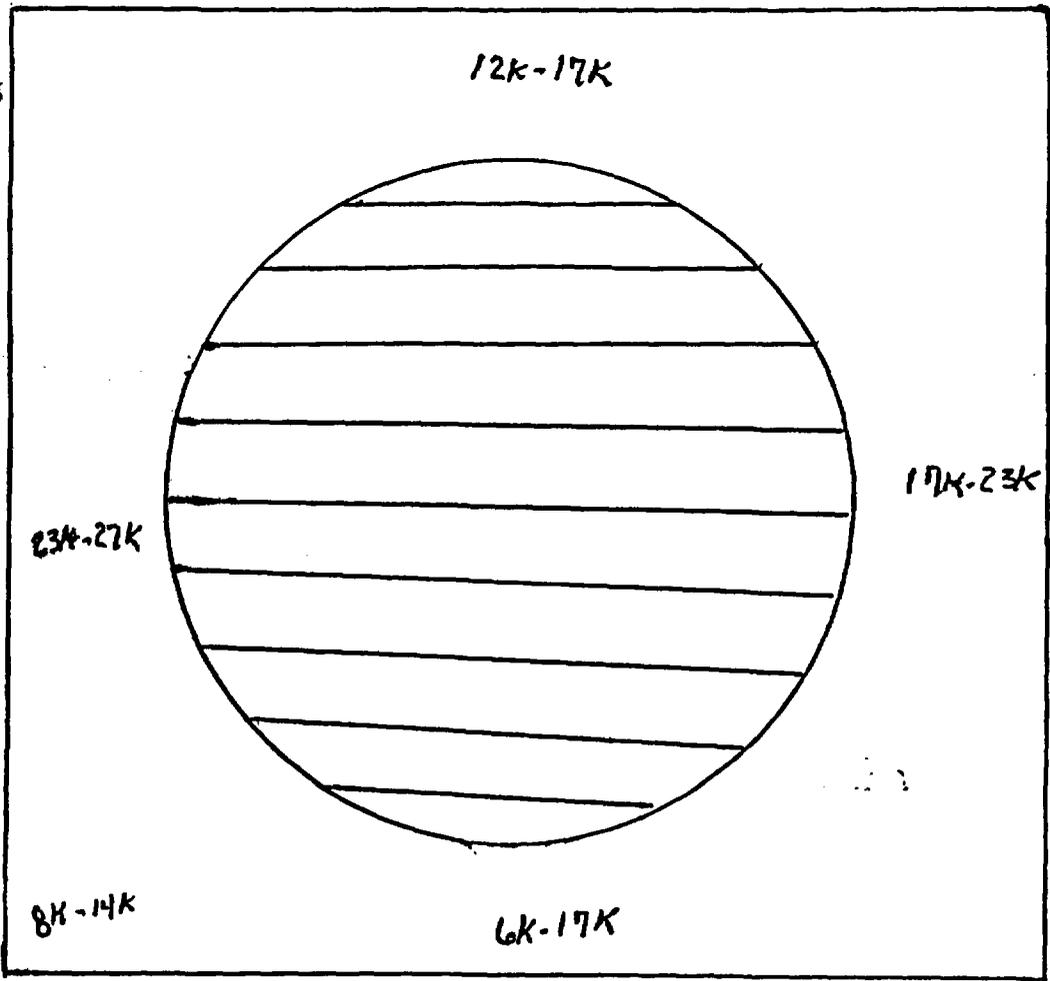
Required R.P. Review / Date: *102218 4/10/03*    Required ALARA Supervisor Review / Date: *N/A*    REASON FOR SURVEY:  ROUTINE'     JOB-COVERAGE'     OTHER' (Specify): *Remediation*

INSTRUMENTS USED				CONTAMINATION RESULTS				KEY:							
MODEL	SERIAL #	CAL DATE	MDA	SAMPLE #	RESULTS	SAMPLE #	RESULTS	SAMPLE #	RESULTS	SAMPLE #	RESULTS				
E-600	11643	6/29/02	N/A									• Contact exposure rates denoted by: <i>e</i>			
SSPa-3	725870	8/05/03	N/A									• Smear locations denoted by: <i>⊙</i>			
												• Boundaries or barriers denoted by: <i>-x-x-</i>			
												• Dose rates denoted by: <i>e</i>			
												• Large area smears denoted by: <i>[ ]</i>			
												• Air sample location denoted by: <i>(X)</i>			
												Sample Continuation Sheet Use: <input type="checkbox"/> YES			

**NOTE:**

- ① Area Posted as: RA, RMA.
- ② Mouth of Pipe was loaded with Lead blankets

③ The Square Around the Penetration represents the Area of the wall Around the Penetration that is removed. This entire Square Area was Scanned with results as shown.



**Appendix B**

**Gamma Scan Results and Post Demolition Map**

**For**

**Primary Auxiliary Building (FA-0600) Survey Unit No. 1 and 10**

**Survey Unit No. 1 Wall Grid Nos. C039, C086 and C087**

**and**

**Survey Unit No. 10 Floor Grid Nos. C029 and C064**

**dated April 12, 2005**

**FINAL RAD REMEDIATION SURVEY**

Related FSS Package #: FA0600 Survey Unit #: 1 & 10 Data Form #: N/A Page 1 of 1

Survey Area: PAB Survey Unit 1 Walls  
PAB Survey Unit 10 Floors RWP/WAN: N/A

Survey Date: 4/11/05

Survey Team
Bruce Lang
<i>Bruce Lang</i>

Instrument	S/N	Cal Due	Detector	S/N	Cal Due
E-600	2618	6/8/05	SSPA-3	2369	3/2/06
E-600	N/A	N/A	SSPA-3	N/A	N/A

Review: *[Signature]* 4/12/05

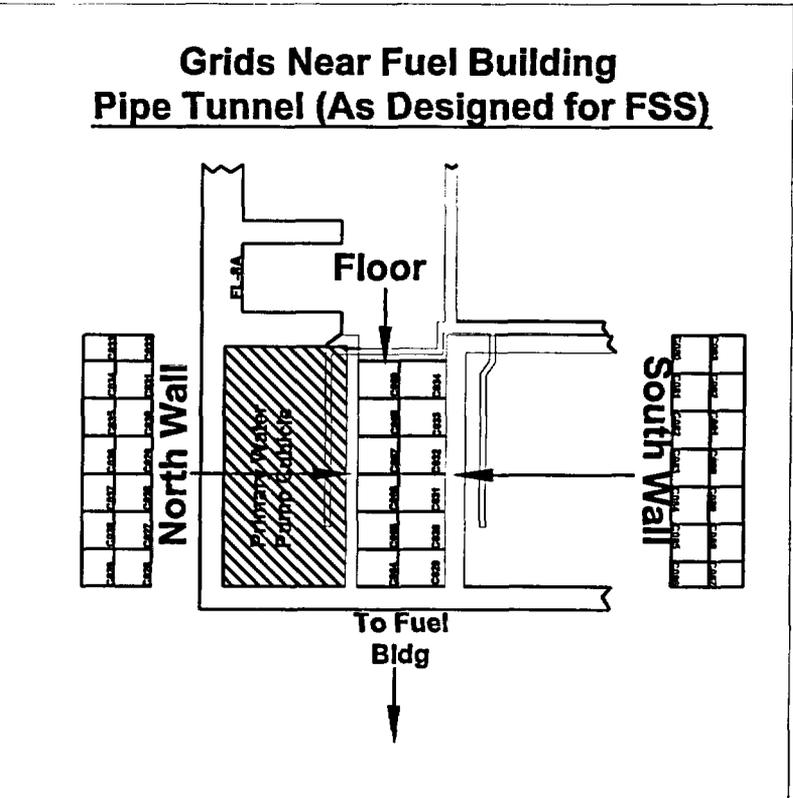
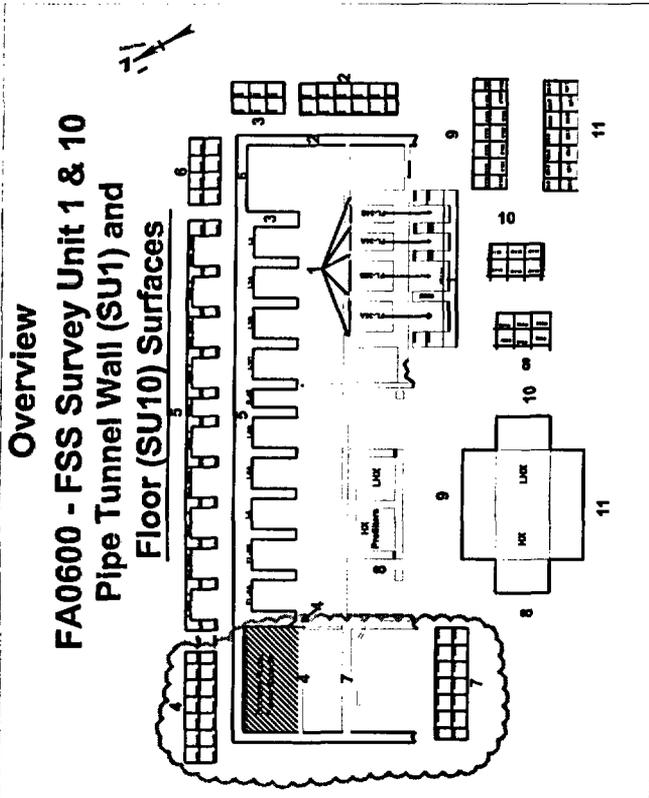
**Surveys**

Grid #	Scan Result (cpm)	Elevated Area Cm2	Comments
G/A Bkgd	12500	N/A	General Area Background
SU1 - C026	No Activity > Bkgd	N/A	Majority of grid no longer exists, only a small portion at bottom remains.
SU1 - C027	No Activity > Bkgd	N/A	
SU1 - C028	No Activity > Bkgd	N/A	
SU1 - C029	No Activity > Bkgd	N/A	
SU1 - C034	No Activity > Bkgd	N/A	
SU1 - C035	No Activity > Bkgd	N/A	
SU1 - C036	No Activity > Bkgd	N/A	
SU1 - C037	No Activity > Bkgd	N/A	
SU1 - C038	No Activity > Bkgd	N/A	
SU1 - C039	N/A	N/A	Grid no longer exists, however, background at this location is as recorded above.
SU1 - C082	No Activity > Bkgd	N/A	
SU1 - C083	No Activity > Bkgd	N/A	
SU1 - C084	No Activity > Bkgd	N/A	
SU1 - C085	No Activity > Bkgd	N/A	
SU1 - C086	N/A	N/A	Grid no longer exists, however, background at this location is as recorded above.
SU1 - C087	N/A	N/A	Grid no longer exists, however, background at this location is as recorded above.
SU1 - C088	No Activity > Bkgd	N/A	
SU1 - C089	No Activity > Bkgd	N/A	
SU1 - C090	No Activity > Bkgd	N/A	
SU1 - C091	No Activity > Bkgd	N/A	
SU1 - C092	No Activity > Bkgd	N/A	
SU10 - C029	No Activity > Bkgd	N/A	
SU10 - C064	No Activity > Bkgd	N/A	

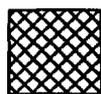
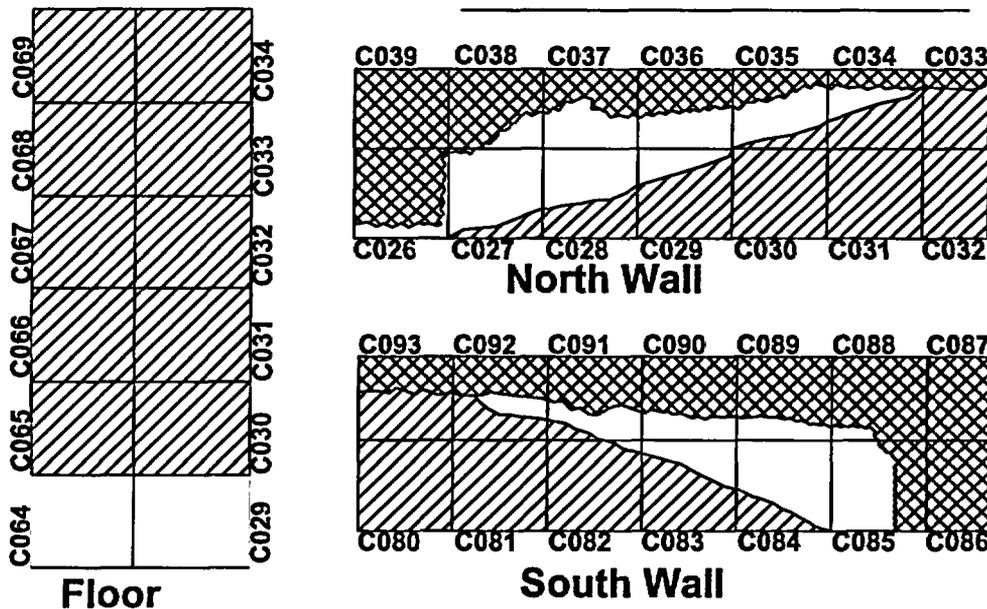
**Comments:** Surveyed all remaining exposed concrete at the West end of the PAB pipe tunnel. No activity greater than background was found. The upper portion of the walls of SU1 have been demolished and no longer exist.

Survey Type:  Remediation Verification

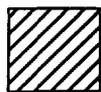
Survey Area Name: PAB 11' Post Demo Tunnel to Fuel Bldg.



## Post PAB Demo



**Cross Hatch = Concrete Removed**



**Hatch = Covered by Fill**