

February 5, 1997

MEMORANDUM TO:

Robert A. Nelson, Chief
LLW & Regulatory Issues Section
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management

FROM:

Dominick A. Orlando, Project Manager
LLW & Regulatory Issues Section
Low-Level Waste and Decommissioning
Projects Branch
Division of Waste Management

[ORIGINAL SIGNED BY:]

SUBJECT:

MEETING SUMMARY - NRC/B&W NESI DISCUSSION OF THE PARKS
TOWNSHIP FACILITIES DECOMMISSIONING PLAN, JANUARY 23,
1997.

On January 23, 1997, staff of the Nuclear Regulatory Commission and Babcock and Wilcox, Nuclear Environmental Services, Inc. (B&W or the licensee) met at NRC Headquarters in Rockville, MD, to discuss the NRC staff's comments on Draft Revision 1 of the licensee's decommissioning plan for its Parks Township, PA facility. In addition, the NRC staff and B&W discussed four "justification papers" submitted by the licensee to support the NRC staff's review and approval of the revised decommissioning plan. This meeting was open to observation by interested members of the public, and was announced in accordance with NRC Management Directive 3.5, "Public Attendance at Certain Meetings Involving NRC Staff."

A meeting attendee list is included as Attachment 1. Attachment 2 is a summary of the NRC staff's comments and the resolutions to these comments agreed to by NRC staff and the licensee during the meeting. Attachment 3 is a summary of the staff's conclusions concerning the Justification Papers. Attachment 4 is a summary of action items for the NRC staff and the licensee.

If you have any questions, please contact me at 415-6749.

Attachments: As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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A handwritten signature, likely of Dominick A. Orlando, is written in dark ink to the right of the "FROM:" line.

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ATTENDEE LIST
MEETING TO DISCUSS THE PARKS TOWNSHIP FACILITIES
DECOMMISSIONING PLAN, JANUARY 23, 1997.

NRC

Robert A. Nelson, Chief
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Division of Waste Management

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and Licensing
Environmental Safety and Health

Thomas Potter, Consultant
Parks Project

ARCO CER

Kathleen B. Schoen, Project Manager
Environmental Remediation

NRC STAFF COMMENTS ON DRAFT REV 1 OF THE
B&W PARKS TOWNSHIP FACILITY DECOMMISSIONING PLAN*

Page/para

Comment

1-18/1&2 Statements indicate that buildings will be demolished after NRC has reviewed the B&W final survey reports. To avoid future misunderstandings about the condition of the buildings at demolition the NRC staff requested that B&W revise the statements here and throughout the decommissioning plan to state that demolition will only occur after NRC has released the buildings for unrestricted use.

B&W explained that this condition was included to avoid delays in scheduling. It was based on NRC doing split samples and observing final status survey activities, gaining confidence in B&W's methods and then performing a detailed review of the data at the completion of the project. It is also included as a license condition in SNM-414, the radioactive materials license for the facility.

Resolution - B&W will revise the decommissioning plan (DP) to indicate that the "review" will be consistent with conditions in Annex C of SNM-414.

1-18/4 B&W indicated that they will use criteria in an April 1993 document entitled "Guidelines for Decommissioning Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material." This is also a license condition of SNM-414. NRC staff requested that B&W revise the DP to state that the criteria in the August 1987 document of the same name will be used.

Resolution - As the criteria in both documents appears to be identical no revision to the DP is required.

2-7/4 Statements indicate that groundwater samples in excess of 15 pCi/l are sporadic, while the data for MW-48 indicates 3 quarters of increased activity (explained later as naturally-occurring Ra-226).

NRC indicated that they felt that it was appropriate to require B&W to demonstrate through actual measurements of groundwater upgradient from the B&W facility that ²²⁶Ra was due solely to background. B&W stated that because they never processed ²²⁶Ra at the site there was no reason to evaluate background ²²⁶Ra levels.

Resolution - This will remain an open issue to be resolved as part of the overall resolution of the groundwater monitoring program.

2-8/7 The Table at the top of the page indicates that all sample results were used to demonstrate compliance with the EPA drinking water criteria, while EPA requires that the last 4 quarters be used to

demonstrate compliance (see 40 CFR 141.26). B&W should plan to use the methodology in the EPA regulations to demonstrate compliance with the drinking water regulations.

Resolution - B&W will use the methodology in the EPA regulations to demonstrate compliance with the drinking water regulations.

2-8/3 Statements concerning "environmental levels of all radionuclides including uranium" will have to be validated by actual background measurements. This also applies to 2-9/3 concerning radium-226.

Resolution - This will remain an open issue to be resolved as part of the overall resolution of the groundwater monitoring program.

2-13 Table 2-2 - The radionuclide ratios described for Project unit D are not consistent with the data presented on page 2-5/5

B&W indicated that the values summarized in the Table were based on 1 pre-remediation sample while the ratios in the text were developed using several post remediation samples.

Resolution- The table will be corrected. Note that the resolution of radionuclide ratios/scaling factors is discussed below.

3-5 Table - The criteria for radium-226 is inconsistent with the discussion on page 2-9. Also, the use of EPA's proposed drinking water criteria for uranium is unacceptable as this regulation has not been promulgated by EPA.

Resolution - This will remain an open issue to be resolved as part of the overall resolution of the groundwater monitoring program.

3-6/3 Statements indicate that building final status surveys will only be reviewed by NRC as opposed to the buildings being released for unrestricted prior to demolition. This should be revised to indicate NRC approval. See also Figure 3-1, Rev 1

Resolution - B&W will revise the decommissioning plan (DP) to indicate that the "review" will be consistent with conditions in Annex C of SNM-414

3-7/5 The timeline cited in the text should be updated.

Resolution - B&W will update the timeline.

3-9/4 The post-remediation groundwater sampling duration of 1 year is acceptable as long as:

- 1) the timeframe is sufficient to allow migration, and equilibration of contaminants from the soil to the groundwater, and

2) it is understood that contamination discovered during NRC confirmatory surveys may warrant re-starting the 1 year sampling program.

Resolution - B&W agreed with the NRC staff and this will be clarified as part of the overall resolution of the groundwater monitoring program.

3-10/5 As discussed in previous correspondence, the discussion of B&W's actions if residual radionuclide levels in soil or radiation levels are in excess of NRC's criteria for unrestricted use of the decommissioning plan is not consistent with the methodology for evaluating elevated areas discussed in NUREG/CR-5849. Please revise the decommissioning plan to incorporate the methodology in NUREG/CR-5849 or provide a rationale for using an alternative methodology.

B&W indicated that they believed this referred to the statistical evaluations discussed in the NUREG, while the NRC staff indicated it referred to an evaluation of the cause of the exceedence and a determination of whether this had an impact on other site survey data.

Resolution - NRC staff will provide B&W with an example of the type of evaluation they expect to be performed if residual radionuclide levels in soil or radiation levels are in excess of NRC's criteria for unrestricted use.

3-12/4 The functions of the Health and Safety Operations groups should be discussed - also please indicate who currently holds each position described in the decommissioning plan.

Resolution - This is described in SNM-414 and therefore, no revision to the DP is required.

3-16/3 Delete the phrase "except as precluded by conflicting regulatory requirements" from the second sentence. If inconsistencies or conflicting regulatory requirements are identified the NRC should immediately be notified and NRC will undertake to resolve the conflict with the appropriate regulatory authority.

Resolution - B&W will delete the phrase from the DP.

4-2/3 It is unclear if it is appropriate to remove the monitoring stations as described in the DP.

Resolution - It appears that the removal of these monitoring stations is appropriate. However, NRC staff will review the Environmental Report and license to confirm.

5-2/1 It is unclear if 10K square meter survey units is consistent with NUREG/CR-5849.

Resolution - NRC staff will determine if 10K square meter survey units are appropriate.

5-2/2 See comment on B&W actions if additional contamination is found.

Resolution - NRC staff will provide B&W with an example of the type of evaluation they expect to be performed if residual radionuclide levels in soil or radiation levels are in excess of NRC's criteria for unrestricted use.

5-3/4 Statements are unclear regarding what actions will be undertaken if paved surfaces are covered and what evaluation will be performed of soil underneath paved surfaces.

Resolution - B&W will clarify the statements regarding the evaluations/actions that will be undertaken on paved surfaces.

5-4/2 Any re-evaluations done for affected areas and unaffected areas should be communicated to NRC as soon as the action to re-classify is initiated.

Resolution - B&W agreed to notify NRC if re-evaluations are done for affected and unaffected areas soon as the action to re-classify is initiated.

5-4/3 The definition of soil is acceptable as long as "small rocks" are those with diameters of 1/2 inch or less.

Resolution - Revise the DP to read "nominal diameter of 1/2 to 1 inch".

5-5/7 It is unclear if re-classified unaffected area grid blocks be remediated after being classified as affected areas. Also see comment on actions if additional contamination is found.

Resolution - Revise the DP to read "...grid block and it and contiguous grid blocks shall be surveyed and sampled, if they have not already been surveyed, to determine if additional remediation is warranted."

5-6/1 It is unclear why reclassification of gridblocks will occur if 25% of the "direct" i.e., average limit is found while 100% of the removable limit must be seen to re-classify the gridblock.

Resolution - B&W agreed to delete the phrase "or removable activity....Section 3.2."

5-6/4 See comment on actions if additional contamination is found.

Resolution - NRC staff will provide B&W with an example of the type of evaluation they expect to be performed if residual radionuclide levels in soil or radiation levels are in excess of NRC's criteria for unrestricted use.

5-7/4 Core samples should be collected in the same manner as if the pile were an open land area.

Resolution - B&W will provide the ASTM standards listed in the DP. NRC determine whether the criteria are appropriate to evaluate the piles.

5-9/1 Statements pertaining to the equilibration of radionuclides in the soil/groundwater will need to be demonstrated before the site is released.

Resolution - B&W agreed with the NRC staff and this will be included as part of the overall resolution of the groundwater monitoring program.

5-13/2 The validity and applicability of the scaling factors will need to be demonstrated to NRC prior to release of the site. In addition, the evaluation of the samples used to make this demonstration should be discussed with NRC to ensure that an appropriate, justifiable program is employed.

Resolution - B&W agreed to submit the scaling factor validation plan to NRC for review and approval prior to the Final Status Survey. NRC will incorporate this as a license condition.

5-14/2 The variable "n" in the first equation is not defined as in NUREG/CR-5849.

Resolution - B&W agreed to revise the definition to conform to the NUREG.

5-15/2 Delete the phrase "included with" from the last sentence and replace it with "used as one of" to conform the statement with NUREG/CR-5849.

Resolution - B&W agreed to the NRC revision.

5-15/4 It is unclear why removable activity measurements will not be evaluated using Equation 5.5.

B&W indicated that they believed that NRC did not require that removable measurements be evaluated using equation 5.5. Subsequent review of NUREG/CR-5849 appears to indicate that all measurements should be evaluated using this equation.

Resolution - NRC will determine whether B&W should evaluate removable measurements using equation 5.5.

5-18/2 The FSSR should include the information discussed in NRC previous comments.

Resolution - B&W agreed to include the information summarized by NRC in previous communications in the DP. NRC staff also urges B&W to review the appropriate portions of NUREG/CR-5849 to ensure that all information required to support Final Status Surveys is included in the FSS Report.

Other

3.5.2 - B&W agreed to add a commitment to cover unevaluated soil piles and soil destined for LLW disposal until such time as it was determined that the soil pile met the criteria for unrestricted use or was packaged for disposal as radioactive waste.

The elevated measurement at Outfall 2 should be evaluated and, if warranted, this area should be reclassified as an Affected area.

Subsequent to the meeting, NRC staff requested that the second paragraph on page 4-2 be subheaded with " Environmental Monitoring Program Changes to be Implemented After the Final Site Survey is Completed."

ACTION ITEMS

NRC

1. NRC staff will provide B&W with an example of the type of evaluation they expect to be performed if residual radionuclide levels in soil or radiation levels are in excess of NRC's criteria for unrestricted use.
2. NRC staff will review the Environmental Report and license to confirm whether removal of the monitoring stations in the DP is appropriate.
3. NRC staff will determine if 10K square meter survey units are appropriate for this facility.
4. NRC will determine whether B&W should evaluate removable measurements using equation 5.5.
5. NRC and B&W will resolve any outstanding groundwater issues.
6. NRC will provide B&W with NRC's decision concerning the appropriate manner to justify the proposed ^{241}Pu limit.
7. NRC will review the ASTM standards listed in the DP to determine if they are suitable for evaluating soil piles

B&W

1. B&W will make revisions to the DP as discussed above.
2. B&W will provide NRC staff with a copy of the Health and Safety Plan for the facility.
3. B&W will evaluate the elevated measurement at Outfall 2 and, if warranted, reclassify it as an Affected area. NRC staff also requests that B&W inform NRC of the outcome of this evaluation as soon as it is completed.
4. B&W will provide NRC staff with the ASTM standards listed in the DP.
5. B&W will provide NRC staff with a copy of the Scaling Factor Validation Plan.
6. B&W will provide NRC with a map showing the current locations of monitoring stations at the suite