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February 21, 1992

Meeting Minutes Transmittal/Approval
Unit Managers Meeting: 216-B-3-Pond
EPA Conference Room
Richland, Washington

Meeting Held November 12, 1991

B-Pond Closure Plan, Unit Managers' Approval

Annabelle L. Rodriguez Date: 3/24/92
Annabelle L. Rodriguez, Unit Manager, RL, EAP, Reg. Permits Branch

Not Present

Date: _____
Daniel L. Duncan, EPA Region 10 RCRA, Program Manager

Elizabeth A. Wiley Date: 2-24-92
Elizabeth A. Wiley, Unit Manager, Washington State Department of Ecology

Fred A. Ruck III Date: 3/23/92
Fred A. Ruck III, WHC, Contractor Representative

PURPOSE: Monthly status report.

- Attachment #1 - Meeting Summary of Discussion and Commitments
- Attachment #2 - Attendance List
- Attachment #3 - Agenda
- Attachment #4 - Action Items
- Attachment #5 - Handout: U.S. Testing Data for Phase I, B-Pond
- Attachment #6 - Handout: U.S. Testing Phase I Data Analysis



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Attachment #1

Summary of Discussion

216-B-3 Pond System
Unit Managers Meeting
November 12, 1991

The meeting was opened at 10:00 a.m. with the approval of prior meeting minutes. Elizabeth A. Wiley is the new Ecology Unit Manager for B-Pond.

The first item of discussion was the status of Phase III sampling evaluation process. According to WHC, the evaluation process was ongoing at this time. Ecology asked for the tentative schedule for Phase II sampling. WHC stated that a preliminary evaluation of the Phase III data leads RL/WHC to suspect that Phase II sampling may not be necessary; the Phase III sampling data evaluation had to precede the Phase II sampling.

The second item of discussion stemmed from a summary of two reviews performed by Ecology on the effluent stream characterization (Phase I) data as per action item 10-7-91:1.

Two handouts were distributed at this point in the meeting: U.S. Testing Data for Phase I, B Pond (Attachment #5) and U.S. Testing Phase I data Analysis (Attachment #6).

Ecology's position is that some of the data was not acceptable because not enough information was present to allow for it to be validated. RL/WHC inquired whether the Phase I sampling report clarified any issues in question. Ecology responded that there was insufficient time for a thorough review of the document, but information still appeared to be lacking. A supplemental meeting to address the data validation issue was scheduled for Wednesday, December 4, 1991, at 9:00 a.m. in the EPA Conference Room, Richland, Washington.

Action Item: Review the Phase I sampling report and data and prepare a formal transmittal of findings to RL. Action: E. A. Wiley (Ecology)

The next Unit Managers Meeting is scheduled for ~~Tuesday, December 10, 1991~~, ^{Friday, Dec. 6} in Richland, Washington at 9:00 a.m. The meeting concluded at 11:00 a.m.

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Attachment #2

Attendance List

216-B-3 Pond System
Unit Managers Meeting
November 12, 1991

<u>Name</u>	<u>Organization</u>	<u>Phone</u>
Kathy Knox	CNES/GSSC	509-376-5011
Annabelle Rodriguez	RL/UM	509-372-0277
Tom Wilczek	WHC/RCRA Closures	509-376-8556
Bob McLeod	RL/P.M.	509-372-0096
Eric Goller	RL/Program Manager	509-376-7326
Fred A. Ruck III	WHC/RCRA Closure	509-376-9876
Elizabeth Anne Wiley	Ecology/Unit Manager	206-493-9426
Joe Witczak	Ecology/Permits	206-438-7557
Chris Kramer	WHC/Envir. Eng.	509-376-4186
Jeff Lerch	WHC/OSM	509-373-3419
Mike Mihalic	SHC/Prog. Office	509-376-0967
Clifford E. Clark	RL/RCRA	509-376-9333
S. J. Lijek	CNES/GSSC	509-376-7829
J. R. Laws	WHC/Closure	509-376-7508
Joan K. Bartz	CNES/GSSC	509-376-6324
Cynthia D. Delaney	WHC/RCRA GW Monit.	509-376-9235
Bill Cox	WHC/RCRA Closures	509-376-1978

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Attachment #3

Agenda

216-B-3 Pond System
Unit Managers Meeting
November 12, 1991

- o Status of Phase III Sampling Evaluation Process
- o New Business

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Attachment #4

Action Items

216-B-3 Pond System
Unit Managers Meeting
November 12, 1991

<u>Action Item</u>	<u>Description</u>
11-12-91:1	Ecology will review the Phase I sampling report along with the sampling data and prepare a formal transmittal of their findings to RL/WHC. Action: E.A. Wiley (Ecology)
10-7-91:1	Ecology will review the effluent stream characterization data and inform WHC (F. Ruck III) if the data is acceptable. Action: Joe Witczak CLOSED
8-22-91:2	WHC will provide Ecology with the latest characterization and analytical data on the liquid effluent streams which discharge into B Pond. Action: F. Ruck CLOSED Ecology (Joe Witczak) will determine whether data supplied is sufficient. (10-7-91)
8-22-91:1	WHC will provide Ecology with the raw lab data for the Phase 1 samples at the September 1991 meeting. Action: T. Wilczek CLOSED

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Unit Managers Meeting: 216-B-3 Pond

U. S. Testing Data for Phase I B Pond

Sample numbers - B-112, 127, 133, 141, 150, 162, 169, 181, 182, 192, 199, 204 are rejected because sample dates and times are missing. Extraction dates are also missing. Because of this, a determination cannot be made as to whether these samples have met or exceeded holding times. Since this pertinent information is missing it is assumed that holding times are exceeded.

U.S. Testing has also failed to follow protocols as set forth in SW 846. Failure to follow this requirement puts U.S. Testing in violation of contract requirements.

The OSM Statement of work has not been followed. This SOW is a USDOE requirement, yet the lab for the DOE has not followed proper DOE protocols.

Some of the deficiencies in information are:

- 1) The case narrative is insufficient in that it does not provide enough information on laboratory procedure.
- 2) There was no mention made as to what methods were used and when. Specific methods are stated in SW 846.
- 3) Laboratory calibration checks were not referenced. Calibration checks are required to be referenced so that it can be verified that all systems are working properly and there are no problems with contamination.
- 4) The matrix is not indicated on the report. Without matrix identification, holding times requirements are not able to be determined since holding times for waters and soils are not the same. Laboratory procedures for soils and water are also different.
- 5) SW 846 volume 1A, requires that specific forms be included in the data package. Phase I data forms were missing from the data package. Important information regarding laboratory procedures are contained in these forms and these forms are required for data validation. The department cannot perform a data validation without the proper forms attached. This is an incomplete data package.
- 6) Chain of custody sheets are missing. Since some sample dates are missing these forms are necessary to check sample dates and times. Matrices are also missing and these forms are required to check sample matrix.
- 7) Raw data began with page 39. Where are pages 1 through 38, and why are they missing?
- 8) Since new wells are being drilled and B Ponds status has gone from a detection level determination to an assessment, I am rejecting the Phase I data because of deficiencies in information and for failure to follow the protocols as set forth in SW 846.

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Attachment #5 (CONT.)
UAMM: 216-B-3 POND
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U. S. Testing Data for Phase I B Pond

Sample numbers- B-112,127,133,141,150,162,169,181,182,192,199,204 are rejected because sample dates and times are missing. Extraction dates are also missing. Because of this, a determination cannot be made as to whether these samples have met or exceeded holding times. Since this pertinent information is missing it is assumed that holding times are exceeded.

U.S. Testing has also failed to follow protocols as set forth in SW 846. Failure to follow this requirement puts U.S. Testing in violation of contract requirements.

The OSM Statement of Work has not been followed. This SOW is a USDOE requirement, yet the lab for the DOE has not followed proper DOE protocols.

Some of the deficiencies in information are:

- 1) The case narrative is insufficient in that it does not provide enough information on laboratory procedure.
- 2) There was no mention made as to what methods were used and when. Specific methods are stated in SW 846.
- 3) Laboratory calibration checks were not referenced. Calibration checks are required to be referenced so that it can be verified that all systems are working properly and there are no problems with contamination.
- 4) The matrix is not indicated on the report. Without matrix identification, holding times requirements are not able to be determined since holding times for waters and soils are not the same. Laboratory procedures for soils and water are also different.
- 5) SW 846 Volume 1A, requires that specific forms be included in the data package. PHASE I DATA SHEET were missing from the data package. Essential information regarding laboratory procedures are contained in these forms and these forms are required for data validation. The Department cannot perform a data validation without the proper forms attached. This is an incomplete data package.
- 6) Chain of Custody sheets are missing. Since some sample dates are missing these forms are necessary to check sample dates and times. Matrices are also missing and these forms are required to check sample matrix.
- 7) Raw data began with page 39. Where are pages 1 through 38, and why are they missing?
- 8) Since new wells are being drilled and B Ponds status has gone from a detection level determination to an assessment, I am rejecting the Phase I data because of deficiencies in information and for failure to follow the protocols as set forth in SW 846.

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Attachment #5 (CONT.)
UMM: 216-B-3 POND
11-12-91 p. 3 of 3



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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A Facsimile Transmission From

the

Nuclear and Mixed Waste Management Program

Mail Stop PV-11
Olympia, WA 98504



DATE: 10-30-91

TO: Fred Ruck

PHONE: (509) 376-9876

LOCATION: Hanford

FAX NO: (509) 376-6476

FROM: Elizabeth A. Wilkey

PHONE: (206) 493-9426

MESSAGE:

FYI

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11-4-91

Attachment #6

UNIT MANAGER'S MEETING: 216-B-3 POND
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U.S. Testing Phase I Data Analysis

Atomic Absorption Analysis (AA): A blank and at least 3 standards, one of which is at the Contract Required Detection Limit-CRDL must be analyzed for each element detected by AA analysis-As, Pb, Se, Ti.

Calibration curves must have a correlation coefficient of greater than or equal to 0.995.

The data received from U.S. Testing does not list a blank and 3 standards, one of which must be at the CRDL, in the beginning of each segment of their AA analysis information. This is where the information is found. SW 846 also requires this information to be listed in Form VII which is also missing from the data package.

The correlation coefficient cannot be determined without standard concentration and instrument response (peak height). There are no standards and no instrument response information available in order to determine the correlation coefficient.

Spike Sample Recovery:

The data package case narrative states that values for antimony may be biased and are estimated due to low Matrix Spike/Matrix spike Duplicate-MS/MSD recoveries. There are no values or work shown to validate this claim. SW 846 designates Form V for this purpose. These forms must be included so that the data validator can verify this information. EPA SOW for Inorganic Analysis No. 788 page E-11 indicates levels for spike sample analysis, page E-10 states requirements used if spike recovery is not at or within the limits of 75-125%. U.S. Testing has not followed these EPA guidelines.

Duplicate Sample Analysis:

The case narrative states that values for barium, cadmium, zinc, manganese and iron are estimated for sample 170 because of "high duplicate analysis RPD". SW 846 provides Form VI to include this information. Although the values are high, these values need to be included so that data validation can be performed on this sample. Relative Percent Differences-RPD's, for some of the samples need to be recalculated by the reviewer to verify control limits. SOW requirements state that an "*" means that the result is outside the control limit, (USEPA Inorganic SOW No.788.) UST's "*" means that the result is less than the detection limit. Is this the contract required detection limit (CRDL) or the instrument detection limit (IDL). In order to maintain continuity, this lab if still operational would be required to perform according to stated protocols.

Mercury Analysis:

A blank and least four standards must be used during mercury analysis. No indication has been made that the required amount of standards have been used. Correlation coefficients need to be calibrated by the validator and this cannot be done without the information on standard concentrations and

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Attachment #6 (CONT.)
UMM: 216-B-3 POND
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absorbances or peak heights. SW-846 provides form III for this purpose. U.S. Testing did not provide these forms or information with the data package.

Cyanide Analysis:

A blank and 3 standards are required for cyanide analysis. Distillation logs are required to verify the midrange standard was distilled. Correlation coefficients need to be calibrated to verify that it is greater than or equal to 0.995. Form III is used for this purpose. Form III was not included in this data package, therefore data validation cannot be performed on cyanide samples.

Initial Calibration Verification:

Raw data needs to be verified so that the Initial Calibration Verification-ICV's agree with Form II. Some of the percent recoveries need to be recalculated for each method and need to be verified so that they agree with form II. $R = \text{found value}/\text{true value} \times 100\%$ The percent Recoveries-R's should all be within 90-110%, except that mercury can be 80-120% R and cyanide can be 85-115% R. The ICV for cyanide must be distilled. No information was provided for the validator to check this data.

Continuing Calibrations:

Continuing Calibration Verifications (CCV's) should be analyzed at a frequency of 10% or every 2 hours during an analysis run, whichever is more frequent. No continuing calibration data is included in this data package. Form II is required by SW-846 to report this data. This form was omitted and therefore CCV's cannot be verified by the reviewer.

Instrument Detection Limit:

Instrument Detection Limits-IDL's are to be verified to be less than the CRDL-Contract Required Detection Limit. Form XI is provided to report this information. No form XI's were included in the U.S. Testing data package, and there is no information included on the instrument detection limits.

Blanks:

Blanks are required for ICV, CCV, AA, Mercury, and Cyanide analyses. There is no information on blanks included in this data package. SW-846 requires that form III be used for this purpose, and the USEPA SOW 782, states that, "At least one preparation blank (or reagent blank-SW 846 requires a reagent blank), consisting of deionized distilled water processed through each sample preparation and analysis procedure must be prepared and analyzed with every Sample Delivery Group, or with each batch of samples digested, whichever is more frequent. This blank is to be reported for each SDG and used in all analyses to ascertain whether sample concentrations reflect contamination". Raw blank data must be verified by the validator so that the validator can verify if there is any contamination present.

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Attachment #6 (CONT.)
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ICP Interference Check Sample:

The Inductively Coupled Plasma-ICP check sample is run at the beginning and end of each ICP sample run or twice each 8 hours, whichever is more frequent. Information on the ICP check sample is required for the data validator to check $\%R$'s for solutions to verify that they are within the QC limits of 80-120%. This information is also necessary to check if interferences are present. If interferences are present, the raw data needs to be examined. SW-845 requires that form IV be submitted with this information. This form or information was not included in the data package.

Laboratory Control Sample:

No information is provided for the Laboratory Control Sample-LCS. Form VII is used for this purpose. Raw data needs to be verified by the reviewer so that the LCS agrees with form VII. $\%R$ calculations for aqueous samples need to be verified to determine if the LCS results fall within the control limits of 80-120% $\%R$. $\%R$'s are not able to be calculated due to the absence of form VII and the data contained in it.

ICP Serial Dilution:

One Serial Dilution sample must be analyzed per SDG, per matrix, per concentration level. There were some dilutions flagged in the data package from U.S. Testing, but there was no indication that they were serial dilutions. I proceeded to try to validate the ICP serial dilution (there is a formula for this purpose) from one of the samples on aluminum, but could not continue, because of lack of information on the IDL. The dilution results in this data package are useless since there is no way to determine $\%D$, and if there are any interference effects.

Furnace Atomic Absorption QC:

Information which is required on all forms regarding Furnace Atomic Absorption-FAA is missing. Absorbance and concentrations are required to be included in the raw data. Analytical spike information is necessary to determine if the Methods of Standard Addition-MSA, will be required for quantitation. The narrative indicated that there were MS/MSD recoveries outside of control limits. The USEPA SOW on inorganics page E-16, section b., 1st paragraph states: "If the preparation blank analytical spike recovery is out of control (85-115%), the spiking solution must be verified by respiking and rerunning the preparation blank once. If the preparation blank analytical spike recovery is still out of control, correct the problem and reanalyze all analytical samples associated with that blank." Why weren't these samples rerun in accordance to the SOW? If these samples were rerun, this should be indicated in the data package.

Sample Result Verification:

Raw data needs to be verified so that it agrees with the forms and to check for transcription errors. Forms were not provided by U.S. Testing and data

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11/05/91 11:41

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WMD/ERD

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11/05/91

10:46

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Attachment # 6 (CONT.)
UMM: 216-B-3 POND
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validation cannot be performed on the package submitted. Since this package cannot be verified, it is difficult to determine if the data presented is valid. I am rejecting all data because of lack of information and because of failure by the laboratory to follow specified protocols in SW-346 and on the USEPA SOW on Inorganics 788.

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Attachment #6 (CONT.)
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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

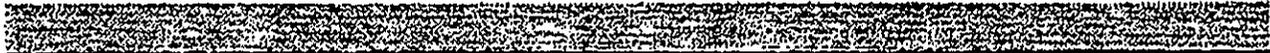
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**Mail Stop PV-11
Olympia, WA 98504**



DATE: 11-5-91

TO: Eric Goller

PHONE: (509) 376-7326

LOCATION: DOE-RL

FAX NO: (509) 376-7818

FROM: E. A. Wilkey

PHONE: 493-9426

MESSAGE:

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with you about.

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