

# START

Final

Meeting Minutes  
Unit Managers Meeting: 2101-M Pond  
1135 Jadwin  
Richland, Washington

Meeting Held May 27, 1992

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2101-M Closure Plan, Unit Managers' Approval

Robert G. McLeod Date: 6-25-92  
Robert G. McLeod, RL, Unit Manager

Not Present

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

Elizabeth A. Wiley Date: 6-25-92  
Elizabeth A. Wiley, Ecology, Unit Manager

Fred A. Ruck III Date: 6/25/92  
Fred A. Ruck III, WHC, Contractor Representative

Michael A. Mihalic Date: 6.25.92  
Michael A. Mihalic, WHC, Contractor Representative

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PURPOSE: Monthly status report.

Meeting Minutes are attached.

- Attachment #1 - Meeting Summary of Discussion and Commitments
- Attachment #2 - Meeting Agenda
- Attachment #3 - Commitments/Agreements Status List
- Attachment #4 - Attendance List
- Attachment #5 - Draft NOD Comments for 2101-M Pond Closure Plan, Revision 1

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Attachment #1

Unit Managers Meeting  
2101-M Pond  
Meeting Held May 27, 1992

Summary of Discussion

Introduction

RL (B. McLeod) introduced Mark Janaskie from DOE headquarters, Washington, D.C. ERD.

Status of NOD Comments

Ecology (E. Wiley) provided draft NOD comments (see Attachment #5) to RL (B. McLeod) and WHC (B. Cox). Ecology (E. Wiley) stated that there were some new comments on the engineering data for the cover design, some problems with the sampling plan, and three of M. Lerchen's comments that were not resolved. Ecology (E. Wiley) said she still had some review left to finish but that she would be gone from June 7<sup>th</sup> to the 22<sup>nd</sup>. RL (B. McLeod) asked if RL would receive the official comments by the 7<sup>th</sup>. Ecology (E. Wiley) answered "probably not".

Sampling Data

There was a general discussion on the sampling data collected to date for the 2101-M Pond. Ecology (E. Wiley) had concerns because US Testing had missed some holding times, that copper and chromium appeared to be problems, and stated that one of the biggest problems with both ponds (B Pond and 2101-M Pond) was the radioactivity. WHC (F. Ruck and B. Cox) stated that there was no radioactivity at 2101-M Pond and never had been. WHC (B. Cox) also stated that the problems with the US Testing data was one of the reasons that the phase II sampling was done. It was also mentioned that the phase II sampling plan was submitted to and approved by Ecology (M. Lerchen) prior to sampling.

Ecology (E. Wiley) also said that there is still some missing data. WHC (B. Cox) said that a draft letter was received from PTI (J. McAteer) at the last meeting listing the data being requested for validation.

**ACTION ITEM:** Ecology (E. Wiley) will send a letter requesting additional data for validation purposes.

The meeting minutes were distributed and signed. The meeting concluded at 1:30 p.m.

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Attachment #2

2101-M Pond  
Unit Managers Meeting  
Meeting Held May 27, 1992

Agenda

- Review, Amend, Approve, and Distribure Prior Meeting Minutes
- Status NOD Comments
- New Business

9 2 1 2 6 4 7 2 0 3 6

Attachment #3

Unit Managers Meeting: 2101-M Pond  
Meeting Held May 27, 1992

ACTION ITEM

COMMITMENTS/AGREEMENTS STATUS LIST

- 6-25-90:3 RL will send a letter to Ecology which will outline a proposed method to resolve the issue of the inclusion of new data in plans. Also included will be a proposed time schedule for the Closure Plan and Sample Plan. Action: Cliff Clark.  
CLOSED
- 7-11-90:1 Send Ecology a copy of all of the data set used in the development of the soil background model strategy. Action: RL/WHC.  
CLOSED, Remanded to the Site-Wide Permit Meetings
- 7-11-90:2 The reference for a study which compared intake values for and comparing rats LD<sub>50</sub> v.s. mice. The reference originates from Reference Organisms Condition in the Ecosystem Toxicity section. Action: Jim Hoover.  
CLOSED
- 1-10-91:1 Confer with Sue Price and determine that engineering certifications are the same in Closure Plans and Part B applications as well as the Interim Status Closure Plans. Action: Fred Ruck.  
CLOSED, Remanded to the Site-Wide Permit Meetings
- 1-10-90:2 Send a letter to WHC stating agreement with the sampling plan and instructing WHC to proceed with sampling. Action: Megan Lerchen.  
CLOSED
- 2-12-91:1 Ecology will provide letter of agreement with the proposed WHC/RL sampling plan and instruction to proceed with the sampling.  
CLOSED
- 3-12-91:1 RL/WHC will inform Ecology at the next UMM of the date that field sampling will commence. Action: Fred Ruck III.  
CLOSED

9 2 1 2 5 4 7 2 0 3 7

3-12-91:2 WHC will draft a letter for RL to send to Ecology requesting written concurrence on the proposed sampling plan and authorize proceeding with sampling. Action: Fred Ruck III.

CLOSED

6-4-91:1 WHC will produce a definitive sampling schedule for 2101-M Pond and fax a copy to Megan Lerchen (Ecology) as well as provide a copy to Cliff Clark and Sandy Trine (RL). Action: Fred Ruck III.

CLOSED

7-11-91:1 Determine what the standard sampling procedures are in regards to maintaining the security of sampling vials and other equipment and report to Ecology. Action: Bill Cox.

CLOSED

7-11-91:2 Forward the completed Ecological Risk Assessment to Ecology by the first week in September 1990. Action: Jim Hoover.

OPEN

5-27-92:1 Ecology will provide a formal letter to RL requesting additional data for validation of the phase II sampling results. Action: E. Wiley.

OPEN

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Attachment #4

Attendance List

2101-M Pond  
Unit Managers Meeting  
May 27, 1992

<u>Name</u>	<u>Organization</u>	<u>Phone</u>
Bill Cox	WHC	509-376-1978
Mark Janaskie	DOE-HQ	301-903-7428
Joe King	SWEC	509-376-4726
Randall Krekel	RL	509-376-4264
S. J. Lijek	CNES	509-376-7829
Robert McLeod	RL	509-372-0096
Mike Mihalic	WHC	509-376-0967
Fred Ruck	WHC	509-376-9876
E.A. Wiley	Ecology	206-493-9426

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Attachment #5

Unit Managers Meeting  
2101-M Pond  
Meeting Held May 27, 1992

Department of Ecology Notice of Deficiency  
DRAFT

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DEPARTMENT OF ECOLOGY  
NOTICE OF DEFICIENCY FOR  
2101-M-Pond  
May 26, 1992

# Page/line Comment/Requirement

1. A-2/13

Comment: EPA and Ecology have established action levels for concentration limits. These concentration limits can be found in the Federal Register, Part VIII Environmental Protection Agency/40 CFR Part 136.

Requirement: Please refer to this guidance when establishing action levels since these are EPA action limits which are used for specific parameters.

2. A-2/17

Comment: Until raw data for the analysis of groundwater is received which can be validated, we cannot determine at this time if the past practices at the BWIP laboratories have or have not contributed to contamination of groundwater beneath the pond.

Requirement: Provide necessary raw data for validation by Ecology.

3. A-2/50

Comment: The interpretation of the "remove and decontaminate" language is not in accordance with WAC 173-303-610.

2. B-1/45

Comment: As stated in Webster's Dictionary, "invoke" means, "To call on for aid, support or inspiration; to call for earnestly; to call forth with incantations".

Requirement: Please replace "invoke".

3. B-2/18

Comment: See comment number 2.

4. B-4/27

Comment: If operations have been terminated, why haven't lab drains been removed from the building to the pond?

Requirement: Please explain why these drains have not been removed, and if not, what purpose do they serve?

92126172041

# DRAFT

6. B-14/52

Comment: SW-846 has been revised in 1987 and 1990.

Requirement: Change all citations regarding SW-846 to, "SW-846 (as amended)", and follow the requirements as set forth in the revisions to that document.

7. B-15/25

Comment: If butanoic acid was not part of the BWIP laboratory and it is not a common laboratory contaminant, there must have been a discharge into the pond at one time.

Requirement: Please provide an explanation for this contamination, or resample.

8. B-17/24

Comment: Were there any more silver concentrations found which were above the detection limits. The Washington State groundwater standards for silver are 0.05 mg/l.

Requirement: Please provide this information. Resampling for this analyte may be warranted if more samples are found to contain elevated silver concentrations.

9. B-19-11

Comment: Appendix IX has been taken from the 1988 CFR. Please use the most current edition at the time of writing the plan. There may be revisions contained in the newer document.

10. B-19/47

Comment: There have been 3 revisions to SW-846 since 1982. Therefore, the most current edition of this document shall be used. When referring to SW-846, "as amended" should be the citation used rather than giving a date.

Requirement: Refer to question #6

11. B-20/17-26

Comment: Dropping a pencil on a random number table is not a scientific way of determining which sample points are to be used during a sampling event. Areas of suspected discharge of wastes and other factors are to be taken into consideration.

Requirement: Determine a scientific method used to determine a sampling point, and use that method.

92126172012

# DRAFT

12. B-20/48

Comment: It is stated that samples were collected in accordance with EPA Region X policy, but is not indicated which policy or document was used to determine this conclusion.

Requirement: State which policy and or document was used to determine that samples were collected in accordance with EPA Region X policy.

13. B-30/40

Comment: If sample holding times can not be documented, and/or if holding times have been exceeded, these samples are rejected.

Requirement: If these are critical samples, a resampling effort must be established.

14. B-30/48

Comment: Duplicates and splits are different types of sample.

Requirement: Delete the word "duplicate" which is placed after "Sample Split".

15. B-31/1

Comment: U.S. Testing holding times are not recognized by EPA or Ecology. Only USEPA holding times are to used for chemical analyses. If UST holding times were used for samples and these holding times exceeded USEPA holding times, these samples will be rejected.

Requirement: If critical samples were lost due to UST holding times which have exceeded USEPA requirements, establish a resampling schedule.

16. B-31/19

Comment: Some additional indicators should be put on samples for ease of identification at the lab. These are: Type of analyses such as-VOA, BNA, Pest/PCB, TPH, PAH, etc., Matrix-soil, water, sludge, oil, etc., Station Location-where collected.

Recommendation: Please include on sample bottles, the identifiers as stated above.

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# DRAFT

17. B-32/6

Comment: Were inorganic water samples taken, and if so, what type of preservative was used in these samples?

Requirement: Please indicate which type of preservative was used in water samples if taken.

18. B-32/41

Comment: This section addresses the decontamination of sampling equipment, but no mention was made as to how equipment will be decontaminated after samples are taken.

Requirement: Please indicate what decontamination procedures will be implemented to clean equipment after sampling takes place.

19. B-36/44

Comment: This section indicates that all cyanide samples exceeded holding times, and states that no levels were found. If a sample goes beyond holding times, there is a good chance that levels will not be found. Why weren't additional samples for cyanide taken? All cyanide samples which have exceeded holding times are rejected.

Requirement: Since holding times were exceeded for cyanide samples, a resampling schedule needs to be established for cyanide analysis.

20. B-36/50

Comment: This section states that laboratory blanks were within established QC limits. Were these EPA or UST QC limits?

Requirement: Please specify if these QC limits are from the EPA or UST. If they are UST, explain how they compare with the EPA limits.

21. B-37/18

Comment: Refer to comment 15.

Requirement: If the holding times do not meet EPA criteria, these samples will be rejected and a resampling schedule must be established.

92126172044

# DRAFT

22. B-99/6

Comment: High levels of chromium were found in unfiltered samples. It was expressed that this finding was due to the natural environment. How high above background levels were the concentrations in these samples?

Requirement: Provide information on elevations above background on chromium samples found at 2101-M Pond. Reanalyses may be warranted if elevations found are too high.

23. B-99/38

Comment: What "tolerance intervals" were used? Was this the actual concentration levels as compared to background, or was this the detection limit? If this is the detection limit, were EPA or UST detection limits used?

Requirement: Explain tolerance levels, and if these are detection limits, specify whether EPA or UST limits are being used.

24. B-104/52

Comment: Why wasn't the most recent edition of SW-846 used? This plan states that the 1982 edition was used in 1988, when an updated version was printed in 1986.

Requirement: All future plans must cite and use the most recent edition of SW-846 if it is being used.

26. B-105/23

Requirement: Provide a list of the UST detection limits and show a comparison with the EPA detection limits. Also provide the CRDLs and the IDLs that were used.

27. B-105/50

Comment: It is stated that EPA methods were used for analysis. U.S. Testing detection limits and holding times were implemented at this time. Most UST holding times exceeded USEPA standards. Since most standards exceeded USEPA holding times, all samples which were out of conformance will be rejected.

Requirement: All samples exceeding holding times will be rejected and possible resampling will occur.

92126172015

# DRAFT

28. 106/8

Comment: When it is stated that pesticides, herbicides, and phenols were collected as required by 40 CFR 265, what exactly does this mean? The regulations state what type of samples are necessary, that a sampling plan must be submitted to EPA and this plan must be implemented. This section does not state how sampling is to be performed.

Requirement: Give details on what is meant by samples being collected as required by 40 CFR 265.

29. B-106/15

Comment: Did the modifications to methods used, receive prior approval from Ecology before being implemented?

Requirement: . If these modifications to methods did not receive prior approval, the samples under these analyses are rejected and resampling may need to take place.

30. B-106/21

Comment: The statement is made that holding times were met. Which holding times, EPA or US testing? Most UST holding times have exceeded EPA requirements. Samples which have exceeded EPA requirements are rejected.

Requirement: If critical samples are rejected because of holding time exceedences, resampling may need to be performed.

31. B-106/27

Comment: All samples must be in compliance with Washington State drinking water standards or MTCA dependent upon the site. These standards are much more stringent than EPA requirements.

Requirement: All Washington State requirements must be followed regarding ground and drinking water.

32. B-107/4

Comment: refer to question #26.

33. B-107/23

Comment: What are the percents recovery for the surrogates or the information so that these recoveries can be verified?

Requirement: Provide information on surrogates and the percentages found. Attachment 1, table 6 illustrates EPA requirements.

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## 39. Section II-2a

Comment: Cover materials description—once again the description of the soil placement is contradicted by the remainder of the report.

In addition, adequate compaction cannot be achieved with 12 inch lifts by any means now available to the industry.

Sheepsfoot rollers are obsolete. Does the writer mean "padfoot roller"? Rubber tired construction equipment may give adequate compaction, and then again it may not. 21 yard scrapers would do it, a frontend loader will not.

If nuclear density gauges are used, they will be calibrated by comparison with a sand cone daily. No either or.

Requirement: An adequate roller will be required. Give details on what type of roller will be used. Provide detail on how adequate compaction will be achieved. If nuclear density gauges are used, they will be calibrated by comparison with a sand cone daily. No either or.

## 40. Table II-3

Comment: The term "Proctor" is imprecise.

Requirement: Please quote "ASTM, AASHTO, or WDOT".

## 41. Section II-3a, Fifth paragraph last sentence

Comment: The removal of deep rooted plants is imperative, not optional.

Requirement: Deep rooted plants must be removed.

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The comments below are those which have been submitted in the latest NOD response table, and still need resolution.

16. USDOE/WHC Proposal: Groundwater data was interpreted to the extent available at the time the closure plan was written. Additional data was presented in the plan for completeness. All the data and statistical analyses will be submitted in the 2101-M Pond RCRA Site Characterization Report.

Ecology Response: This closure plan should provide enough information specific to the 2101-M Pond on which to base decisions. This means that both the available data and its interpretation should be presented within the closure plan; submittal in another report is not sufficient. It is also appropriate for similar types of information to be presented in one section, i.e., all of the data may be presented in tabular form in an appendix.

9 2 1 2 6 4 7 2 0 4 7

# DRAFT

USDOE/WHC Proposal: All available groundwater data will be presented in an appendix.

Ecology Response: There must be enough information available in order to validate the data. Information is missing as in the other data reports submitted by USDOE, the missing data must be provided. We cannot make a determination on the groundwater analysis until all missing information is made available.

24. USDOE/WHC Proposal: Modify the closure plan to demonstrate compliance with WAC 173-303-645 and give additional clarifications about the impact the 2101-M Pond has had on groundwater.

Ecology Response: This will be conditionally accepted provided that the following contradictory statements are reconciled and the results approved by Ecology. First it is stated, "while it is difficult to absolutely prove ... well E18-1 is upgradient and representative of background ...." Then it is stated, "well E18-1 provides background water quality per the definition of Appendix A in the ... [FFACO]." Ecology will determine if this revision is acceptable depending on the results of number 25.

USDOE/WHC Proposal: The text will be modified to reflect the information presented at the July 11, 1990, Unit Manager Meeting.

Ecology Response: There are some questions which remain regarding the analytical results taken from the groundwater samples. There is a statement made that constituents were found to be below standards or detection limits. What standards or detection limits are being referred to in this section? The statement that the issue of background is moot because groundwater beneath 2101-M Pond has not been degraded by operations in the 2101-M facility needs to be established in the closure plan. State in the plan that groundwater monitoring is in compliance with WAC 173-303-645.

58. USDOE/WHC Proposal: "The integrity of background sample data collected within 1000 ft of the 2101-M Pond site will be assessed and documented in the 2101-M Closure Plan."

Ecology Response: The issue of past practice effects and RCRA/CERCLA overlap at sites chosen for background sampling is being decided at the Project Manager's level. The acceptability of the background sampling sites will be decided after this issue is resolved.

Ecology Response 2: The latest background report is being reviewed. Ecology will have a better idea after this review, if the sites chosen for background are acceptable.

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## 34. B-107/29

Comment: Why weren't EPA matrix spike recoveries used? What are the UST matrix spike recovery limits?

Requirement: Discuss in detail the spike recoveries used and the recovery limits. Explain why EPA matrix spike recoveries were not used.

## 35. B-107/37

Comment: According to a previous statement, not all EPA methods were used for analyses. Spike recoveries cannot as yet be determined to have been in compliance with EPA QC limits. Samples which exceeded EPA holding times are rejected. Samples which exceeded percent recoveries by 10 % or more or have not met percent recoveries by 10 % or more are also rejected. Where can this information be found which indicates that control samples were used for accuracy checks?

Requirement: Provide all missing QA information as listed in above statements.

## 36. B-108/11

Comment: It is stated that data received from the 2101-M Pond System groundwater samples indicate that this site should be clean closed. What types of contamination are present from radioactive constituents? Radioactive contamination must be addressed for clean closures.

Requirement: Provide information on radiochemistry to determine the amount of contamination from radioactive constituents.

## 37. Section II-1

Comment: Summary-The second paragraph is totally contradicted by the rest of the plan as to lift thickness and permeability.

Requirement: Permeability shall be verified on test pads through use of a sealed double ring infiltrometer.

## 38. Section II-2

Comment: Preliminary Cover Design-Energy has proposed McGee Ranch soil before, but has used bentonite modified local soil. Which will be used?

Requirement: Since bentonite has been used in the past, study the bentonite alternate along with McGee Ranch.

92126372019

Distribution:

W.H. Bodily KEH (E3-33)  
R.M. Carosino RL (A4-52)  
C.E. Clark RL (A6-95)  
W.G. Cox WHC (S5-65)  
D.L. Duncan EPA (HW-106)  
B.G. Erlandson WHC (B2-19)  
G.D. Forehand WHC (B2-35)  
C.J. Geier WHC (H4-57)  
R.D. Izatt RL (A6-95)  
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E.A. Wiley Ecology

ADMINISTRATIVE RECORD (2101-M, D-2-1) [Care of EDMC, WHC (H4-22)]

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