

# START

June 28, 1990  
Final

Meeting Minutes Transmittal/Approval  
Unit Managers Meeting: 183-H Solar Evaporation Basin  
420 Golf Club Road SE  
Lacey, Washington

Meeting Held May 30, 1990

183-H Solar Evaporation Basin, Unit Managers' Approval

*Daniel L. Duncan*

Daniel L. Duncan, EPA Region X, Unit Manager

Date: 7/23/90

*Clifford E. Clark*

Clifford E. Clark, DOE-RL, ERD

Date: 7/23/90

*M.A. Ruck III*

Fred A. Ruck III, WHC, Contractor Representative

Date: 7.23.90

*Joe Witczak*

Joe Witczak, Ecology

Date: 7/23/90

PURPOSE: Monthly status report.

Meeting Minutes are attached. Minutes are comprised of the following:

- Attachment #1 - Meeting Summary of Discussion and Commitments
- Attachment #2 - Commitments/Agreements Status List
- Attachment #3 - Agenda for the meeting
- Attachment #4 - Attendance List



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Distribution:

M.J. Anthony DOE (A6-95)  
J.D. Bauer WHC (B3-15)

S.A. Benfer SWEC (A4-35)  
L.E. Borneman WHC (B2-19)  
E.A. Bracken DOE (A6-95)  
L.C. Brown WHC (H4-51)  
R.M. Carosino DOE (A4-52)  
C.E. Clark DOE (A6-95)  
S.B. Clifford WHC (H4-57)  
C. Defigh-Price WHC (B2-20)  
D. Duncan EPA  
K.R. Fecht WHC (H4-56)  
C.J. Geier WHC (H4-57)  
J. Goodenough DOE (A6-95)  
R.D. Izatt DOE (A6-95)  
G.W. Jackson WHC (R2-29)  
R.J. Landon WHC (B2-19)  
R.E. Lerch WHC (B2-35)  
M.A. Mihalic WHC (R1-15)  
H.E. McGuire WHC (B2-35)  
E.W. Powers WHC (R2-77)  
L.L. Powers WHC (B2-35)  
F.A. Ruck III WHC (H4-57)  
S.A. Wiegman WHC (B2-19)  
J. Witczack Ecology

ADMINISTRATIVE RECORD (183-H Solar Evaporation Basins, T-1-4) [Care of Susan Wray, WHC (H4-51C)]

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Attachment #1  
Summary of Discussion

Hazardous Waste Volume Reduction

- a. Ed Powers (WHC) stated that testing for delisting of the solidified salts from the basins indicated that the metals are locked up but that the salts contain leachable nitrates at concentrations up to 159,000 ppm. This concentration of nitrates causes the waste to be toxic. Joe Witczack (Ecology) asked what the groundwater standards for nitrate are and what the analysis for nitrate or nitrogen is. Cliff Clark (DOE) informed him that he thought the standards were 45 ppm for nitrate and 10 ppm for nitrogen. Ed Powers (WHC) thought the analysis was for nitrate and stated that they had used NIOSH limits for the concentration of nitrates in the soil. Joe Witczack (Ecology) asked what category it would fall into and was informed by Ed Powers (WHC) that it fell into category D. Fred Ruck (WHC) brought a copy of the letter containing the results of the analysis for delisting of the 183-H Solar Evaporation Basin Waste. The letter will be formally transmitted to the agencies at a later date after DOE/WHC has had the opportunity to review the results.

**Action 1: DOE will send a copy of the letter containing the results of the analysis for delisting of the 183-H Solar Evaporation Basin Wastes to the agencies.  
Action: Cliff Clark.**

- b. Joe Witczak (Ecology) asked if EP-Toxicity or TCLP tests had been run on the samples of the waste. Fred Ruck (WHC) informed him that EP-Toxicity had been run. Joe Witczak (Ecology) commented that the waste was only listed due to Washington regulations.

Current Status

- a. Mike Mihalic (WHC) stated that solidification and clean up of Basin #3 has been completed. The solidification of Basin #2 had been completed as of May 4th and removal of the crystallized material started on May 17th. The salt crystal is about 3 feet deep. The clean out of the crystallized material is approximately two weeks behind schedule. This delay is due to problems with the crane and to the unexplained hardness of the waste. At the current time, 850 drums are stored on a temporary storage pad awaiting shipment to the Central Waste Complex (CWC) and 684 barrels have been shipped and are stored inside the storage buildings. It is estimated that Basin #2 contained 2635 barrels of waste of which 530 barrels have been removed from the basin. Basin #3 contained 1006 barrels of waste.
- b. Mike Mihalic (WHC) stated that DOE\WHC will meet the milestone for this year even though the removal of the waste in Basin #3 is 2 to 3 weeks behind schedule.

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## Closure

- a. Joe Witczak (Ecology) asked if a decision has been made on what type of cover will be used at the site. Mike Mihalic (WHC) stated that this depends on the results of analysis of basin concrete and soil samples from under Basin's #2 and #3. These results will be used in determining whether the basins will be clean closed or whether a cover will be placed over the basins. Mike Mihalic (WHC) went on to say that WHC has preliminary results and information from Basins #1 and #4 but needs to check the results from testing of Basins #2 and #3 before making a decision. Also, WHC knows that leakage has occurred under Basin #1 through cracks but this does not exclude the possibility of clean closure at Basins #2 and #3. Joe Witczak (Ecology) asked if the concrete will be tested and if contaminated, he assumed the concrete would be removed prior to clean closure of the site. Ed Powers (WHC) stated that with the large volume of concrete involved, the costs and effort of removing the concrete would be high. He stated that if DOE/WHC did clean close, they would go back and decontaminate the concrete by removing the top 1/4 inch. This would greatly reduce the cost compared to removal. If DOE/WHC could get the concrete decontaminated, they could push the remaining demolished structures into the clear wells and apply a cover. Fred Ruck (WHC) commented that if preliminary results of the chemical analysis of the soil are promising, then clean closure is a option. Joe Witczak (Ecology) commented that if the soils are clean but the concrete is contaminated, Ecology may require the concrete be removed. He did not think DOE/WHC would want to do another postclosure activity to dispose of the concrete. Ed Powers (WHC) stated that only 10% of the concrete surface has been exposed to the waste and even though preliminary results from Basin #1 and #4 indicate some leaking along cracks in the concrete, the soil under the concrete in the area of the cracks is clean. Joe Witczak (Ecology) asked if he was going to be shown the preliminary soil results. Fred Ruck (WHC) commented that DOE/WHC would rather look at the data first and send it out as preliminary data. Mike Mihalic (WHC) stated that hot spots had not been discovered under any of the basins, however, it is difficult to discern what a high concentration is without the establishment of background. While the data collected to date may represent background, the establishment of background levels is an area wide (Hanford site) problem. Joe Witczak (Ecology) asked if DOE/WHC thought that clean closure would be to background levels. Fred Ruck (WHC) indicated no, that the clean up would be to some action level, which may be based on health based standards. Mike Mihalic (WHC) stated that they are going to start to develop the cover design criteria in July.
- b. Joe Witczak (Ecology) asked about the cover design. The reply was that the cover will be a standard RCRA cover with some modifications. These may include the replacement of clay with a native soil with a polymer additive along with other modifications. Mike Mihalic (WHC) commented that DOE\WHC are following an FDC document format, with some modifications to this type of document for the cover design.
- c. Joe Witczak (Ecology) asked about the groundwater contaminate concentrations. Mike Mihalic (WHC) commented that the nitrate and

chromate concentrations have been dropping and that nitrate is at or below MCL levels. Fred Ruck (WHC) stated that a presentation on ground water will be covered in the June Unit Managers Meeting. The meeting will cover several topics common to all of the units. Dan Duncan (EPA) suggested that it would also be appropriate to discuss the site permit at this time.

**Action #2** WHC will fax an agenda for the June 20th meeting for 100-HR-3 integration of CERCLA-RCRA operable units, in Richland to Ecology and EPA. Action: Fred Ruck.

- d. Joe Witczak (Ecology) commented that the approval of the closure plan by Ecology will be at the end of the summer but that this will not effect the permit to any great extent. He asked when a decision on whether the site will be clean closed or not will be made. Mike Mihalic (WHC) stated that this would not occur until sampling of the concrete and soils of Basins #2 and #3 had occurred. This should be completed by December or January. Dan Duncan (EPA) inquired if the sampling was the basis for clean closure. Mike Mihalic (WHC) answered, yes. The testing has been done under Basin's #1 and #4 and will be done under Basin's #2 and #3 during September and October. Mike Mihalic (WHC) added that sampling of these basins should be completed by October with analytical results delivered to DOE/WHC in December. If the sample concentrations are high, the cover option will be looked at. Ed Powers (WHC) asked Joe Witczak (Ecology) what levels would have to be met in terms of nitrate concentrations. Joe Witczak (Ecology) replied that that would be a policy decision but he thought that groundwater standards would have to be met. Ed Powers (WHC) commented that DOE/WHC could not find any direct references to nitrate concentrations in water quality. Ed Powers (WHC) asked if the state had different regulations. Joe Witczak (Ecology) stated that WAC 173-303 probably states background levels.

**Action #3:** Ecology will define the standards for nitrate in soil, water, and concrete for the June 27 meeting. Action: Joe Witczak.

- e. Dan Duncan (EPA) asked when DOE/WHC would be able to present to the agency a decision on clean closure. Ed Powers (WHC) stated that it would be after the soil and concrete analysis came back and had been reviewed, in December or January. Also, that DOE/WHC would be ready to discuss the plan, including cover design if required, by January or February (1991). Joe Witczak (Ecology) stated that even if the soils are clean but the concrete is contaminated, Ecology may not allow post closure. Fred Ruck (WHC) stated that projected closure activities should occur next summer if the sampling time schedule can not be accelerated. Dan Duncan (EPA) suggested that the design of the cover could be done while waiting for the results. Joe Witczak (Ecology) asked if angle borings are planned for under the basins. Fred Ruck (WHC) stated, yes, but that will not take place until Phase II, which starts January 1991.
- f. Ed Powers (WHC) stated that as soon as Basin #3 has been cleaned out it will be sand blasted as was done for Basin's #1 and #4. Joe Witczak (Ecology) asked why the concrete needed to be sand blasted. Ed Powers

(WHC) explained that this is done to reduce the number of pathways available for contaminate migration. With rainfall and runoff, the potential exists for further migration of contaminants.

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- g. Joe Witczak (Ecology) asked when he could see the preliminary analytical sample data for Basins #1 and #4. Mike Mihalic (WHC) stated that it all has to go through document control and the data could only be used on a preliminary bases due to current problems with US Testing Laboratory. An ongoing discussion occurred covering the problems at US Testing. Joe Witczak (Ecology) asked if everything from 183-H was done at US Testing. Fred Ruck (WHC) stated, yes. Cliff Clark (DOE) stated that the information from US Testing may be good data but there is a need to verify it. Joe Witczak (Ecology) asked if additional samples are being sent to US Testing. Fred Ruck (WHC) stated that no additional samples are being sent to US Testing and that they are looking into other laboratory sources. Joe Witczak (Ecology) asked how DOE/WHC is evaluating the data. Cliff Clark (DOE) commented, that currently an entire review of the US Testing contract is under way to see if everything was done according to contract terms in relation to data quality. Joe Witczak (Ecology) asked data quality is checked. Fred Ruck (WHC) stated that by an examination of the accuracy, precision, blanks, and percentage recovery a quality review and judgement can be made and that this will be done before the data is sent to the agencies.
- h. Fred Ruck (WHC) commented that the Post Closure Permit was filed in December of 1988 and included a Closure Plan. Ecology had divided the plan into a Closure Plan and Post Closure Plan with an emphasis on getting the Closure Plan reviewed first. Cliff Clark (DOE) commented that anything short of clean closure will require an approved Post Closure Plan. Mike Mihalic (WHC) asked if the Closure Plan will be out in July. Joe Witczak (Ecology) stated that based on the schedule, they hope to have the Closure Plan out by the end of the summer. Cliff Clark (DOE) stated that Megan Lerchen (Ecology) is shooting for June or the first of July for the NOD's. Joe Witczak (Ecology) commented that most of the plan deals with groundwater and that the hydrogeologist has reviewed it.
- i. Joe Witczak (Ecology) asked how the salt cake was being drummed ? He asked if it was the same manner as for sludges, solids, and liquids, and whether or not adsorbents are still being mixed in ? Ed Powers (WHC) commented that the cake is really dry. The cake is placed in a 10 mil plastic liner in 55 gallon drums. An absorbent is placed in the bottom of the barrel. The barrel is then filled with salt cake and an additional layer of absorbent is added on top of the cake. Mike Mihalic (WHC) added that the salt is piled up prior to barreling to allow for any liquid in the cake to drain out. The small amount of liquid that is drained from the cake is then solidified and barreled. Cliff Clark (DOE) asked how radioactively hot the salt is. Ed Powers (WHC) commented that the levels are 2 mRem/Hr, just enough to make it a mixed waste. Joe Witczak (Ecology) asked if the radioactive elements in the salt have a short half life. Ed Powers (WHC) stated that they did not.

- j. Dan Duncan (EPA) suggested that the state may want to have a hydrogeologist for the permitting meetings as part of the 183-H and 100-HR-3 Unit Managers Meetings. Joe Witczak (Ecology) will make the contact within Ecology for a hydrogeologist for the 183-H meeting.

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Attachment #2

ACTION ITEM

COMMITMENTS/AGREEMENTS STATUS LIST

5-30-90:0

Ecology approval of 183-H Solar Evaporation Basins Closure Plan Action Ecology.

OPEN

5-30-90:1

DOE will send the agencies the letter containing the results of the analysis for delisting of the 183-H Solar Evaporation Basin Wastes. Action: Cliff Clark.

NEW

5-30-90:2

WHC will fax Ecology and EPA an agenda for the June 20th meeting for 100-HR-3 integration of CERCLA-RCRA operable units, to be held in Richland. Action: Fred Ruck.

NEW

5-30-90:3

Ecology will define the standards for nitrate in soil, water, and concrete for the next meeting. Action: Joe Witczak.

NEW

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Attachment #4

Attendance List

<u>Name</u>	<u>Organization</u>	<u>Phone</u>
Stacey Benfer	SWEC	509-376-3217
Cliff Clark	DOE/ERD	509-376-9333
Dan Duncan	EPA/Region 10	FTS-399-6693 (206-442-6693)
Mike Gasser	SWEC	509-376-9830
Mike Mihalic	WHC	509-376-4169
Ed Powers	WHC	509-373-2774
Fred Ruck III	WHC	509-376-9876
Joe Witczak	Ecology	206-438-7557

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