

MEETING MINUTES

OCTOBER 9-10, 2001

INDIAN HEAD INSTALLATION RESTORATION TEAM MEETING

WILLOW CREEK RESORT

LANCASTER, PENNSYLVANIA

The meeting was held on October 9, 2001 and October 10, 2001, at Willow Creek Resort , Lancaster, Pennsylvania.

The following personnel attended the meeting on October 9, 2001:

Anne Estabrook – CH2M HILL
David Steckler – CH2M HILL
Curtis DeTore – Maryland Department of the Environment
Shawn Jorgensen – NSWC Indian Head
Heidi Morgan – NSWC Indian Head
Jeff Morris – EFACHES
George Latulippe – Tetra Tech NUS
Dennis Orenshaw – US Environmental Protection Agency, Region III

The following personnel attended the meeting on October 10, 2001:

Anne Estabrook – CH2M HILL
David Steckler – CH2M HILL
Curtis DeTore – Maryland Department of the Environment
Shawn Jorgensen – NSWC Indian Head
Heidi Morgan – NSWC Indian Head
Jeff Morris – EFACHES
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Tuesday, October 9, 2001

- **Introductions**

Familiarizing group, catching up:; Dennis Orenshaw, George Latulippe (scribe), Curtis DeTore, David Steckler (minutes), Anne Estabrook (time keeper), Heidi Morgan, Jeff Morris, and Shawn Jorgensen (chair). Began meeting at 10 AM.

- **Review today's agenda**
- **George: LTM Plan Decision Tree**

Goal: Determine appropriate decision points for LTM Plan.

George opened the presentation by providing a handout showing a potential decision tree (flow chart) for Site 12. The initial sampling program calls for 4 quarters of sampling. The analyte list is restricted to COCs. The decision to increase or decrease the frequency of sampling and analyte list is based on trends shown from the initial quarterly sampling. If no significant trend is observed (up or down), quarterly sampling is decreased to 9-month intervals. If no trend is seen after three 9-month intervals, sampling is reduced to 18-month intervals. If, however, there is an upward trend, sampling returns to quarterly. If after three 18-month sampling events, COCs are below comparison criteria, the COCs are removed from sampling program. If after three 18-month sampling events, all COCs are below comparison criteria, the monitoring well is removed from sampling program. If after three 18-month sampling events, all COCs in all monitoring wells are below comparison criteria, the sampling program is ceased. George suggested that, as an option, all wells could be sampled for full TCL and TAL prior to ceasing the monitoring program.

The team discussed the need to sample out beyond the proposed close of the monitoring program. Shawn reiterated Curtis's comment from a previous meeting regarding the possibility that because this is a landfill with some unknown contents, a drum containing a hazardous waste might leak in the future. The team discussed the 5-year review process. Anne reiterated Steve Hirsh's comment that monitoring out beyond the close of the monitoring program could be based on groundwater flow rates.

George provided the team with a map of Site 12 showing possible monitoring locations. The team briefly discussed the locations.

George returned the discussion to sampling timeframes. George suggested that a well could be eliminated with the provision that it be sampled at the 5-year review. Heidi asked about trends in COCs. George responded that at each sampling event the data would be reviewed for trends. Heidi stated that the final LTM plan must be specific as to what constitutes a trend because there will be future users of the document. Dennis noted that the terms such as trend and significant are somewhat nebulous but could be refined in the future. George added that these items will be refined in the future, but for now, the team needs only to agree on the concept of the LTM.

The team discussed the first 5-year review because as noted in the decision tree the LTM as shown would exist for a minimum of seven years (i.e., the first 5-year review would occur during the initial LTM implementation.) Dennis suggested that the 5-year review occur separately.

George responded that as he had envisioned it, the five year review was suggested because he felt the team could not simply stop the monitoring program forever. This would allow for monitoring in the future at a rate that is both protective and cost-effective. Jeff asked whether or not the five year sampling would require a full suite of analytes. Dennis responded that to his knowledge, there is no requirement to even sample at the five year review. As Dennis understood the concept of the 5-year review, the idea is to review the selected remedy to ensure that it is continuing to be protective of human health and the environment. Jeff responded that if the idea is to ensure that a drum of TCE or other contaminant has not leaked into groundwater, then sampling a wide suite of analytes is likely required. Jeff then asked what the driver for the five year review is. Curtis responded the reason is because at present, there are contaminants above MCLs in groundwater.

George suggested that the team take a minimalist approach by suggesting less analytes because reviewers will be quick to suggest that the sampling program increase but will not suggest that the list or frequency be reduced. Dennis indicated that as an option, prior to a decrease in the sampling frequency or analyte list, sampling will include a full suite of analytes. George suggested that because MCLs change, the COC list could change. The team discussed the specific requirements of a 5-year review. Jeff reiterated that landfills hold 'surprises' so in his opinion a full suite is required.

Dennis suggested that the team determine what the procedure is for a 5-year review is. Anne indicated that at this time there appears to be some question as to what analytes should be analyzed for and when. Curtis noted that he wanted to speak with a person at MDE who has done landfill closure in the past.

Dennis asked whether there were any questions about the outline he previously submitted.

- **Lunch**

Continue George:

The team discussed sampling frequency, comparison criteria, trends. Several team members suggested alternative scenarios to the proposed decision tree.

George summarized the questions and concerns regarding the Site 12 LTM Plan and Decision Tree:

1. Do we analyze for full HSL vs. COCs and if so with what frequency?
2. What constitutes a trend?
3. What is 'significant'?
4. Should we establish a minimum number of sampling rounds necessary before eliminating COCs or wells from the program?
5. What constitutes 'criteria' (e.g. regulatory values, risk based, and statistical)?
6. How do we integrate the 5-year review into the LTM process?
7. How does the LTM allow for flexibility in the decision process?

Action Item: George will develop proposed definitions for 'trend', 'significant', and 'criteria' for the Site 12 LTM by 11/14/01

Action Item: Curtis will check with internal personnel regarding regulatory criteria for LTM requirements and provide information to team by 11/2/01

Action Item: Dennis will check with internal personnel regarding regulatory criteria for LTM requirements and provide information to team by 11/2/01

Action Item: Jeff will check with internal personnel regarding regulatory criteria for LTM requirements and provide information to team by 11/2/01

The team discussed sampling frequency, trends, COCs.

- **Anne: IR Site 28 Historical Information and Proposed Sampling Scheme**

Goal: Provide team information on Site 28, including the proposed sampling scheme.

Anne opened the discussion by telling the team that Site 28 is where a zinc recovery furnace used to be. Shawn read the following passage from the Initial Assessment Study regarding Site 28:

This site is the location of the 1.8-acre original NOS burning ground. Team file searches were not able to determine what materials were burned at the site. However, based on the material manufactured when the site was in operation (circa 1890s to 1942), only smokeless powder was burned at the site. It is also possible that other contaminated wastes were open-burned here. Team site reconnaissance did not indicate any visible signs of these materials. There is not sufficient information to characterize the potential hazard at the site. A Confirmation Study is not recommended at this time.

Anne told the team Site 28 could be broken down into 4 zones (A, B, C, and D). Zone A is the former zinc recovery area and open burning area. This is the main area of concern. It is expected that the main problem will be zinc and potentially VOCs (applied for burning). There is a flat area in Zone A that is believed to be the location of the former zinc recovery unit. Sampling would consist of a grid plus additional sampling around the former building. Anne noted that one option is to bring an XRF to the site for screening. The drawback that only one metal could be run at a time was noted. Curtis asked whether the samples would be run in situ or pulverized and baked. Anne replied that the samples would be run in situ. Anne continued that some percentage would be sent to a lab for confirmation. The other option is to send all samples to the lab for full TAL.

Following soil sampling, the data would be evaluated as whether there would be a need for groundwater sampling. Sediment and surface water samples would be collected from the swales located in Zone A. There is no proposal to collect samples from Mattawoman Creek due to the ongoing study. Heidi suggested getting the data from the TIE performed in the area. Anne said that she would coordinate with Kent so that there would be no duplication of efforts.

Zone B, a reported rubble dump, is defined by the tree line to the northeast and the fence line to the southwest. Sampling in Zone B would consist of 5-6 samples at locations where runoff may occur. Analytes include metals and VOCs.

Zone C, to the south, appears undisturbed but is the reported location of the burning area. Sampling in Zone C would consist of 5-6 samples would be collected from around the site just to eliminate the possibility that that is where it was located. Analytes include metals and VOCs. Heidi asked if Zone A is where they have found explosive grains. The team discussed the definition of 'explosive grains'. Anne explained that this is Zone D. Zone D which is along the road appears to be a former railroad. Grains may fall out of train cars. Anne explained that

there are H&S concerns because of that. Curtis noted that explosive grains do not meet the definition of UXO. Shawn explained that according to Saftey, grains are all over the base. Anne returned to the sampling program. Samples would be collected every 100 feet along the former railroad. Analyses would include arsenic (because of pesticide spraying along railroad tracks) and explosives.

The team discussed Site 10 which is upgradient of Site 28. Site 10 is an area where grains were spilled.

Action Item: Heidi will look at the EPIC study for Site 28 and send information to Anne by 10/26/01

Action Item: Heidi will talk to Mike Olup about explosives safety issues at Site 28 10/26/01

Action Item: Jeff will bring older aerial photos to Heidi by 10/25/01 (at RAB meeting)

Consensus: The team agrees that sampling should occur at Zone C of Site 28.

Consensus: The team agrees that it is not necessary to investigate Zone D as a separate investigative area of Site 28.

The team discussed the use of XRF at Zone A. It was noted that moisture affects accuracy as does uniformity of grain size. Jeff felt that given the available information regarding the site, XRF will not provide useful data.

Consensus: The team agrees that the Phase 1 investigation of Zone A should include surface soil, subsurface soil, and groundwater collected using direct push methods and analyzed at an off-site lab.

Action Item: Anne will coordinate with Kent Cabbage regarding Mattawoman Creek samples collected near Site 28 by 11/2/01

Action Item: Anne will review proposed analytical suite for Site 28 zones A, B, and C by 11/2/01

- **Shawn: Handling Site 14**

Goal: Provide team information on Site 14

Shawn opened the discussion by reading the following paragraph from the Initial Assessment Study regarding Site 14:

This fenced-in site is the location of the former chemical disposal pit 50 feet northeast of the Solvent Storehouse (Building 881) and 75 feet northwest of the Test Paper Manufacturing Building (Building 444), facilities built in 1954 and 1941, respectively. Reportedly, undetermined quantities and types of waste acids and chemicals were collected from these buildings and various other NOS sources and discarded in the 15-20-foot-deep pit. The pit was filled in with chemicals and circa 1975, the material was dug up and removed and the pit was filled in. Team site reconnaissance was carried out in the vicinity of the site. Other than the fence, there are no other visible signs of the former disposal area as the site grounds were capped with concrete. Evidence of spills, leaks, or stressed vegetation was not apparent.

Anne asked if the question is whether or not Site 14 requires further investigation. Shawn provided the team with the available information on Site 14. The team discussed the use of

geophysics to locate the former waste disposal pit. Another option is to include the pit in the Lab Area ROD. Heidi mentioned that a site worker showed her where the location was. Heidi thinks the outline of the building was found during the excavation.

Jeff asked is there a need to locate the pit if it is covered by 20 feet of soil. Dennis thought it would be best for the team to incorporate the pit into the Lab Area RI.

Consensus: The team agrees to include Site 14 in the lab area RI.

- **End meeting at 4:00 PM**

Wednesday, October 10, 2001

Review Goals, Action Items, and Parking Lot

Action Item: Heidi will invite ROICC to January 2002 IHIRT meeting by 11/2/01

Action Item: Anne will locate electronic copy of FY 01, 02 Goals by 11/2/01

Action Item: Jeff will locate electronic copy of FY 01, 02 Goals by 11/2/01

Action Item: George will locate electronic copy of FY 01, 02 Goals by 11/2/01

Items left in the Parking Lot:

Parking Lot
Partnering session (Team building)
Discuss dig permit policy
Sites 11, 13, 17, 21, and 25 Remedial Alternatives

- **Close Out**

The following items were suggested for inclusion in the next meeting agenda:

Next Agenda	Lead	Time (hr)
Identify OHM/ROICC Roles and responsibilities for Site 12 and chain of communication	Shawn	1.0
LTM: define 'trend', 'significant', and 'criteria' and 5-year review integration	George	1.0
Lab Area RI results	Ed	1.5
Site 47 MIP/EC results	David	1.5
Goals: update/review/revise	Jeff	1.0
Site 42 Groundwater issues	Curtis	1.0
Site screening work plan for 7 sites	George	1.0

- **Schedule of Future Meetings**

Date of meeting	14-15 November 2001	15-16 January 2002	19-20 February 2002	20-21 March 2002		
Location	Annapolis	Indian Head	Philadelphia	Herndon		
Host	Curtis	Shawn	Dennis	Anne		
Chair	Curtis	Heidi	Dennis	Jeff		
Scribe	Shawn	Curtis	Anne	Heidi		
Tier II Link	Armelia B.	TBD	TBD	TBD		
Time Keeper	George	Dennis	George	Dennis		

A conference call will be held on November 6, 2001 at 10:00 AM.

- **Meeting Evaluation**

(Separate file)

- **Adjourned at 2:00 PM.**

ACTION ITEMS COMPLETED SINCE LAST MEETING

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	309	Check on as-builts for the steamline footers at Site 42	Shawn Jorgensen	05/23/2001	Completed	09/06/2001
To be defined	To be defined	In Progress	328	Send GIS contract information to Jeff	Shawn Jorgensen	06/28/2001	Completed	07/13/2001
To be defined	To be defined	In Progress	330	Brief Simeon Hahn on use of CLP methods for Mattawon Creek Study	Dennis Orenshaw	08/15/2001	Completed	08/17/2001
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	331	Distribute information from Solid Waste Department regarding Site 42 monitoring well issues	Curtis DeTore	08/15/2001	Completed	08/27/2001
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	332	Set up conference call for Tuesday 8/28/01 at 9:00 AM	George Latulippe	08/15/2001	Completed	08/24/2001

OPEN ACTION ITEMS

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
To be defined	To be defined	In Progress	333	Arrange for Janet to attend our February 2002 meeting	Anne Estabrook	08/15/2001	Completed	08/31/2001
To be defined	To be defined	In Progress	334	Find out about reviewers preference in document submission: hardcopy versus electronic, PDF versus spreadsheets and text	Dennis Orenshaw	08/15/2001	Completed	09/12/2001
To be defined	To be defined	In Progress	335	Identify and brief ROICC on plans	Shawn Jorgensen	08/16/2001	Completed	09/20/2001
To be defined	To be defined	In Progress	336	Invite arranged OHM & ROICC to January 2002 meeting	Jeff Morris	08/16/2001	Completed	09/20/2001
3	Finalize Remedial Investigation Report for Site 47 by 07/17/00	In Progress	337	Develop and distribute a memo outlining a field investigation to define presence and extent of DNAPL at Site 47	David Steckler	08/16/2001	Completed	09/07/2001

OPEN ACTION ITEMS

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
To be defined	To be defined	In progress	287	Scope for BMP update	Jeff Morris	04/24/2001	In Progress	02/19/2002
To be defined	To be defined	In progress	289	Check on site contract to get GIS data into system	Jeff Morris	04/24/2001	In Progress	02/19/2002
To be defined	Finalize Remedial Investigation Report for Sites 6, 39, and 45	In Progress	313	Send Anne information on risk numbers for exotic chemicals	Dennis Orenshaw	05/24/2001	In Progress	11/14/2001
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	322	Ask base personnel if there has been filling around steam line footers at Site 42	Shawn Jorgensen	06/28/2001	In Progress	11/14/2001
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	323	Ask EPA hydrogeologist to look at RI (regarding flow directions) for Site 42 and schedule conference call	Dennis Orenshaw	06/28/2001	In Progress	10/26/2001
To be defined	To be defined	In Progress	338	Review the LUCAP/LUCIP document and forward comments to George	Team	08/16/2001	In Progress	10/26/2001
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00	In Progress	339	Develop proposed definitions of 'trend', 'significant', and 'criteria' for the Site 12 LTM	George Latulippe	10/09/2001	In Progress	11/14/2001

OPEN ACTION ITEMS

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
	(b) Finalize Proposed Plan by 09/13/00							
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	340	Check with internal personnel regarding regulatory criteria for LTM requirements and provide information to team	Curtis DeTore	10/09/2001	In Progress	11/02/2001
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	341	Check with internal personnel regarding regulatory criteria for LTM requirements and provide information to team	Dennis Orenshaw	10/09/2001	In Progress	11/02/2001
1	Sign Record of Decision for Sites 12, 41, 42, and 44 by 04/04/01: (a) Finalize Feasibility Study by 04/19/00 (b) Finalize Proposed Plan by 09/13/00	In Progress	342	Check with internal personnel regarding regulatory criteria for LTM requirements and provide information to team	Jeff Morris	10/09/2001	In Progress	11/02/2001
To be defined	To be defined	In Progress	343	Look at EPIC study for Site 28 and send information to Anne	Heidi Morgan	10/09/2001	In Progress	10/26/2001
To be defined	To be defined	In Progress	344	Talk to Mike Olup about explosive safety issues at Site 28	Heidi Morgan	10/09/2001	In Progress	10/26/2001

OPEN ACTION ITEMS

Goal Number	Goal	Status of Goal	Action Number	Action	Person Responsible for Action	Date Action Created	Status of Action	Date Action Must Be Completed
To be defined	To be defined	In Progress	345	Bring older aerial photos to Heidi	Jeff Morris	10/09/2001	In Progress	10/25/2001
To be defined	To be defined	In Progress	346	Coordinate with Kent Cabbage regarding Mattawoman Creek samples collected near Site 28	Anne Estabrook	10/09/2001	In Progress	11/02/2001
To be defined	To be defined	In Progress	347	Review proposed analytical suite for Site 28 zones A, B, and C	Anne Estabrook	10/09/2001	In Progress	11/02/2001
To be defined	To be defined	In Progress	348	Invite ROICC to January 2002 IHIRT meeting	Heidi Morgan	10/10/2001	In Progress	11/02/2001
To be defined	To be defined	In Progress	349	Locate electronic copy of FY 01, 02 Goals	Anne Estabrook	10/10/2001	In Progress	11/02/2001
To be defined	To be defined	In Progress	350	Locate electronic copy of FY 01, 02 Goals	Jeff Morris	10/10/2001	In Progress	11/02/2001
To be defined	To be defined	In Progress	351	Locate electronic copy of FY 01, 02 Goals	George Latulippe	10/10/2001	In Progress	11/02/2001

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