N60921.AR.000496
NSWC WHITE OAK
5090.3a

Section: 04.01
Site 20903-5640 (White Oak)
Doc. #: 0017

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July 29, 2003

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03-355-SJM

Commanding Officer
Chesapeake Division NFEC
Attention: Code 181, Mr. Walter Legg
Washington Navy Yard, Building 212
1314 Harwood, St. S.E.
Washington, DC 20374-5018

Dear Mr. Legg:

Subject: CH2M HILL Responses to Comments from the Army on the Draft Final Feasibility Study for Operable Unit 1, NSWC - White Oak
Contract N62470-95-D-6007
Navy CLEAN II Program, Contract Task Order 0101

Enclosed for your files are CH2M HILL's responses to comments on the draft final Feasibility Study Report for Operable Unit 1 from the US Army ALC and Corps of Engineers. Each comment is repeated in its entirety followed by CH2M HILL's response. Any questions can be directed to me at (703) 471-6405, extension 4332.

Sincerely,
CH2M HILL

Scott MacEwen, P.E.
Project Manager

Enclosure 1 – Responses to U.S. Army ALC and Baltimore CoE

cc: Mr. Chris Evans/U.S. Army CoE
Mr. Bruce Beach/USEPA Region III
Mr. Mark Callaghan/MDE
Mr. Bob Ridgway/Identix
Mr. Scott Nesbit/Tetra Tech NUS
File (cover letter only)

CH2M HILL/Navy Responses to U.S. Army Adelphi Laboratory Center Comments on the Draft Final Feasibility Study for Operable Unit No. 1 NSWC-White Oak, Silver Spring, Maryland dated March, 2003

Comments dated: 5/7/03
Responses dated: 6/23/03

1) Section 8 - The U.S. Army concurs with the highest ranking alternatives (ALT-4 and ALT-5) presented for Site 9 Area Groundwater.

Response to 1. None required

2) Section 9 – The U.S. Army concurs with the highest ranking alternatives (ALT-5 and ALT-6) presented for the "Target Remediation Zone" area of the Dissolved-Phase Plume at Sites 4, 7, and 46.

Response to 2. None required

3) Section 9.4.7 and Figure 9-6 – The U.S. Army will not support Alternative 7 – Centrifuge Extraction-System Expansion as currently proposed for the downgradient area of the Dissolved-Phase Plume at Sites 4, 7, and 46. The proposed alternative as depicted on Figure 9-6 is not acceptable to the Army based on its close proximity to the Della Whitaker Building. The primary concern is that the long term creation of a cone of depression in the groundwater table will result in differential soil settlements in the extraction area. By placing extraction wells next to the building, these settlements could result in instability to the building's foundation and surrounding features. Secondary concerns for the proposed configuration include the nuisance and disruptions to building activities during construction of the remedy and the potential need for continuous air monitoring in the building to address perceptions of contaminant exposure by building personnel. For all of these reasons, the U.S. Army strongly recommends that ALT-7 configuration be revised to place the Extraction-System Expansion on a line located northwest of the Della Whitaker Building parking lot. This relocation is preferable even if it requires additional extraction wells and longer runs for power lines and discharge piping.

Response to 3. The locations of the extraction wells associated with Alternative 7 have been revised so that they are now located well north of the Della Whitaker Building and the parking lot.

CH2M HILL/Navy Responses to Comments by the U.S. Army Corps of Engineers, Baltimore Division
on the
Draft Final Feasibility Study for Operable Unit No. 1
NSWC-White Oak, Silver Spring, Maryland
dated March, 2003

Comments dated: 5/7/03
Responses dated: 6/23/03

1) Page 1-12, section 1.3.10, last paragraph – Replace "semiannual" with "regular" in the first sentence.

Response to 1. The requested change has been made in the Final FS.

2) Table 1-1, Army Investigations/Sampling Events – The complete list of sampling events performed by the Army and provided to the Navy are as follows:

Investigation	Invest. Date	Focus of Study	Army Bldg 500	Irby/Charlton	Reference
Army – RI for Adelphi Labs	1996-1997	soil, gw, sw, sed	X	X	US Army Feb 98
Army – Long-Term Mon. Rnd. 1	Jun 1998	gw, sw, sed	X	X	US Army Sep 98
Army – Long-Term Mon. Rnd. 2	Jan 1999	gw, sw, sed	X	X	US Army Apr 99
Army – Long-Term Mon. Rnd. 3	Jun 1999	gw, sw, sed	X	X	US Army Sep 99
Army – Long-Term Mon. Rnd. 4	Feb 2000	gw, sw, sed	X	X	US Army May 00
Army – Long-Term Mon. Rnd. 5	Jun 2000	gw, sw, sed	X	X	US Army Sep 00
Army – Long-Term Mon. Rnd. 6	Jan 2001	gw, sw, sed	X	X	US Army Apr 01
Army – Long-Term Mon. Rnd. 7	Jun 2001	gw, sw, sed	X	X	US Army Sep 01
Army – Long-Term Mon. Rnd. 8	Apr 2002	gw, sw, sed	X		US Army Aug 02

Response to 2. The requested changes and additions have been made in the Final FS.

3) Table 9-3, ALT-2 Long Term Monitoring Wells – In addition to the 22 wells shown here for LTM sampling, the Army would like well 46GW127 to be added to the list. This well is located on the southern Army property boundary, has a history of extensive contamination, and is located halfway between the last line of wells and Paint Branch proposed for monitoring. Information from this well would be valuable to the Army in understanding when contamination no longer is migrating past its property boundary.

Response to 3. Well 46GW127 has been added to the list of wells to be monitored as part of all alternatives for Site 4 and 46.

4) Page 10-4, Please add USACE Long Term Monitoring Reports #3 through #8 to the list of references.

USACE, Baltimore District. September 1999. *Long Term Monitoring Report #3, Sampling Event June 1999 at the Building 500 and Site 8 Areas, Adelphi Laboratory Center, Adelphi, Maryland.*

USACE, Baltimore District. May 2000. *Long Term Monitoring Report #4, Sampling Event February 2000 at the Building 500 and Site 8 Areas, Adelphi Laboratory Center, Adelphi, Maryland.*

USACE, Baltimore District. September 2000. *Long Term Monitoring Report #5, Sampling Event June 2000 at the Building 500 and Site 8 Areas, Adelphi Laboratory Center, Adelphi, Maryland.*

USACE, Baltimore District. April 2001. *Long Term Monitoring Report #6, Sampling Event January 2001 at the Building 500 and Site 8 Areas, Adelphi Laboratory Center, Adelphi, Maryland.*

USACE, Baltimore District. September 2001. *Long Term Monitoring Report #7, Sampling Event June 2001 at the Building 500 and Site 8 Areas, Adelphi Laboratory Center, Adelphi, Maryland.*

USACE, Baltimore District. August 2002. *Long Term Monitoring Report #8, Sampling Event April 2002 at the Building 500 and Site 8 Areas, Adelphi Laboratory Center, Adelphi, Maryland.*

Response to 4. The requested additions have been made in the Final FS.

5) Page 8-4, section 8.4.2, 5th paragraph – It is not clear from the discussion of Long Term Monitoring at Site 9 if surface water sampling in the West Farm Branch will be performed as part of the monitoring program regardless of the alternative selected. This monitoring is of value to the Army in ensuring that contamination is not discharging into surface water bodies.

Response to 5. Monitoring of surface water is not proposed as part of any remedy for Site 9. Several rounds of surface water monitoring have been conducted to date and results indicate that the surface water is not impacted by site related chemicals. Based on the length of time that has passed since contamination has been released to the environment, it is highly likely that concentrations in the ground water and in the stream have reached equilibrium. It is also assumed that continued monitoring of the groundwater in the plume, as proposed by most alternatives, will provide an indication if this is not the case. (i.e. if the extent and magnetude of contamination is continuing to increase despite the implementation of a remedial action, we would first see an indication of this in the groundwater. If groundwater monitoring indicates a significant increase in contaminat concentrations near the stream, it may be necessary to begin to monitor the surface water in West Farm Branch.

6) Page 9-8, section 9.4.2, 7th paragraph – It is not clear from the discussion of Long Term Monitoring at the Dissolved Plume at Sites 4, 7, and 46 if surface water sampling in the Floral Drive Stream, Paint Branch, Site W seeps, and Bldg 500 underdrain discharge will be performed as part of the monitoring program regardless of the alternative selected. This monitoring is of value to the Army in ensuring that contamination is not discharging into surface water bodies.

Response to 6. Monitoring of surface water, aside from the effluent of the air strippers and the seep on the Paint Branch Home property, is not proposed as part of any remedy for Site 4, 7, and 46. Several rounds of surface water monitoring have been conducted to date in the atreams identified in Comment 6, and results indicate that the surface water is not impacted by site related chemicals to the extent that they represent a risk to receptors. Based on the length of time that has passed since contamination has been released to the environment, it is highly likely that concentrations in the ground water and in the stream have reached equilibrium. It is also assumed that continued monitoring of the groundwater in the plume, as proposed by most alternatives, will provide an indication if this is not the case. (i.e. if the extent and magnetude of contamination is continuing to increase despite the implementation of a remedial action, we would first see an indication of this in the groundwater). If groundwater monitoring indicates a significant increase in contaminat concentrations near the stream, it may be necessary to begin to monitor the surface water in these streams.