

Ohio Environmental Protection Agency (OEPA)

And

Ravenna Army Ammunition Plant (RVAAP)

2007 Correspondences



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

March 19, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL RQL PROPOSED PLAN (RVAAP-01)
APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Proposed Plan for Soil and Dry Sediment at Ramsdell Quarry Landfill (RVAAP-01), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated March 2007 and received at Ohio EPA on March 5, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes have been made to this document and **considers it to be final and approved**, providing there are no additional comments from the Army or Ohio Army National Guard.

If you have any questions regarding this correspondence, please do not hesitate to contact me at (330) 963-1148

Sincerely,

Todd R. Fisher, Project Coordinator
Division of Emergency and Remedial Response
Todd.Fisher@epa.state.oh.us

TRF/kss

cc: Eileen Mohr, Ohio EPA, NEDO, DERR
Kevin Jago, SAIC, Oak Ridge
Jed Thomas, SAIC, Twinsburg
Glen Beckham, USACE, Louisville
Mark Krivansky, AEC

MAJ Ed Meade, RTLS
Katie Elgin, RTLS
John Jent, USACE, Louisville
Angela Schmidt, USACE, Louisville
Bonnie Buthker, Ohio EPA, SWDO, DERR

ec: Mike Eberle, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 9, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
~~FINAL EBG RECORD OF DECISION~~
(RVAAP-02) APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Record of Decision for Soil and Dry Sediment at the Erie Burning Grounds (EBG, RVAAP-02), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated September 2007 and received at Ohio EPA on September 19, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes have been made to this document and considers it to be final and approved.

If you have any questions regarding this correspondence, please do not hesitate to contact me at (330) 963-1148

Sincerely,

Todd R. Fisher
Project Coordinator
Division of Emergency and Remedial Response
Todd.Fisher@epa.state.oh.us

TRF/kss

cc: Eileen Mohr, Ohio EPA, NEDO, DERR
Kevin Jago, SAIC, Oak Ridge
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Mark Krivansky, AEC

MAJ Ed Meade, RTLS
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Angela Schmidt, USACE, Louisville
Bonnie Buthker, Ohio EPA, SWDO, DERR

ec: Mike Eberle, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 9, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL ODA#2 RECORD OF DECISION
(RVAAP-04) APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Record of Decision for Soil and Dry Sediment at the Open Demolition Area #2 (ODA#2, RVAAP-04), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated September 2007 and received at Ohio EPA on September 19, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes have been made to this document and considers it to be final and approved.

If you have any questions regarding this correspondence, please do not hesitate to contact me at (330) 963-1148

Sincerely,

Todd R. Fisher
Project Coordinator
Division of Emergency and Remedial Response
Todd.Fisher@epa.state.oh.us

TRF/kss

cc: Eileen Mohr, Ohio EPA, NEDO, DERR
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Angela Schmidt, USACE, Louisville
Bonnie Buthker, Ohio EPA, SWDO, DERR

ec: Mike Eberle, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

March 19, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL LL12 PROPOSED PLAN (RVAAP-12)
APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Proposed Plan for Soil and Dry Sediment at Load Line 12 (RVAAP-12), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated March 2007 and received at Ohio EPA on March 5, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes have been made to this document and considers it to be final and approved, providing there are no additional comments from the Army or Ohio Army National Guard.

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Sincerely,

Todd R. Fisher, Project Coordinator
Division of Emergency and Remedial Response
Todd.Fisher@epa.state.oh.us

TRF/kss

cc: Eileen Mohr, Ohio EPA, NEDO, DERR
Kevin Jago, SAIC, Oak Ridge
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Mark Krivansky, AEC

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Bonnie Buthker, Ohio EPA, SWDO, DERR

ec: Mike Eberle, Ohio EPA, NEDO, DERR



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Chris Korleski, Director

March 19, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL FBQ PROPOSED PLAN (RVAAP-16)
APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Proposed Plan for Soil and Dry Sediment at Fuze and Booster Quarry Landfill/Ponds (RVAAP-16), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated March 2007 and received at Ohio EPA on March 5, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes have been made to this document and considers it to be final and approved, providing there are no additional comments from the Army or Ohio Army National Guard.

If you have any questions regarding this correspondence, please do not hesitate to contact me at (330) 963-1148

Sincerely,

Todd R. Fisher, Project Coordinator
Division of Emergency and Remedial Response
Todd.Fisher@epa.state.oh.us

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 9, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
~~FINAL FBC~~ RECORD OF DECISION
(RVAAP-16) APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Record of Decision for Soil and Dry Sediment at the Fuze and Booster Quarry Landfill/Ponds (FBQ, RVAAP-16), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated September 2007 and received at Ohio EPA on September 19, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes have been made to this document and considers it to be final and approved.

If you have any questions regarding this correspondence, please do not hesitate to contact me at (330) 963-1148

Sincerely,

Todd R. Fisher
Project Coordinator
Division of Emergency and Remedial Response
Todd.Fisher@epa.state.oh.us

TRF/kss

cc: Eileen Mohr, Ohio EPA, NEDO, DERR
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Bonnie Buthker, Ohio EPA, SWDO, DERR

ec: Mike Eberle, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

August 22, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
~~MUSTARD AGENT AOC-4~~
GEOPHYSICS DRAFT WP

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR), has received and reviewed the document entitled: "Draft Work Plan, Geophysical Investigation, Suspected Mustard Agent Burial Site, Ravenna Army Ammunition Plant, Ravenna, Ohio." The document dated August, 2007 and received on August 10, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District by Environmental Quality Management (EQM) under contract number W912QR-04-D-0036.

Attached to this correspondence, please find Ohio EPA's comments on the draft work plan.

If you have any questions concerning the attached comments, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr, Project Manager
Division of Emergency and Remedial Response

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Glen Beckham, USACE Louisville
Rick Hockett, USACE Louisville
Katie Elgin, OHARNG RTLS
Mark Krivansky, AEC
John Miller, EQM

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR

ETM/ams



"Draft, Work Plan, Geophysical investigation, Suspected Mustard Agent Burial Site, Ravenna Army Ammunition Plant, Ravenna, Ohio"

Reviewer: Eileen T. Mohr, Ohio EPA, NEDO, DERR

Date: August 22, 2007

Cmt #	Page #/ Line #	Comment	Recommendation	Response
1	General	The purpose of conducting the geophysical investigation is to determine if there are mustard agent test kits buried in a specified area of RVAAP. CAIS sets generally consisted of 40 ml or 3.5 ounce bottles containing chemical agent, placed in either metal containers or wood boxes. In the event that the CAIS sets were present and in metal containers, there could be remnants of the metal containers. In the event that the CAIS sets were in wood boxes, there is a good possibility that they would not be detected with this initiative.	Please add information to the workplan that details whether or not it is known what type of container the sets (if present) may have been in; how it will be determined that there is no mustard agent present if the outer cases were constructed of wood (and not metal); etc.. In terms of getting this area to the point of RC, it is not clear how we will get there in the event that the geophysics evaluation does not turn up any anomalies, and we don't have information that demonstrates that the CAIS were in metal containers.	
2	General	There was no HASP attached to the workplan.	Please provide a HASP for review and comment. Although Ohio EPA does not have regulatory jurisdiction over HASPs, we do review them and provide comments for consideration.	

3	1/12-13	The text indicates that the sets may have been buried in tin cans	Please provide the source of this information.	
4	1/12-16	Cross reference general comment #1 above.	Add additional text to the revised workplan addressing this issue.	
5	1/23	Ravenna is a city.	Change Town to City.	
6	1/25	Change for clarity.	Put 2002 and 2003 in parentheses.	
7	2/fig 1	On the site location map, the western side of the installation is basically devoid of any features such as igloos, AOCs, etc..	Please revise the western portion of the map so that it details the features shown on figure 2.	
8	4/fig 3	Figure 3 revisions needed.	a. add a scale to the figure. b. add the contour interval that is depicted in the figure to the legend.	
9	6 or 7	Text revision requested.	Add the health and safety officer to either section 2.1 or 2.2.	
10	7/fig 4	Addition requested.	Add Kathy Krantz to the table of organization.	
11	7/34-35	Text addition requested.	Line spacing changes should also be run through USACE Louisville and Ohio EPA. A field change order should be prepared and approved by both USACE and Ohio EPA. Add this to the text.	
12	9/3	Clarification requested.	Don't all EQM employees have "stop work" authority for health and safety reasons? As a FYI, under the Directors Findings and Orders (June	

			2004), Ohio EPA has stop work authority. Add this to the text.	
13	9/9	Text addition requested.	Add Ohio EPA to Level 4.	
14	10/section 3.1	Text addition requested.	Based upon using an EM-31 and an EM-61, please provide additional text in the workplan that discusses the effective exploration depth and whether or not the reported burial depth (per former employee recollections) will be covered by this investigation.	
15	11/1	The text indicates that GPR will optionally be used depending upon whether or not any metallic objects are found.	Please clarify whether or not this determination will be made in consultation with USACE and Ohio EPA, or if it will be done if any metallic signature is detected.	
16	11/11-21	Reference requested.	Reference the anecdotal information/interviews utilized.	
17	13/5	Text addition requested.	Please reference the HASP that needs to be developed and tier under the installation-wide HASP. Ensure that the HASP is read and signed off on by all EQM employees and sub contractors.	
18	13/5	FYI	Please ensure that updated 8 hour certificates and 40 hour HAZWOPER training certificates for all EQM employees and subcontractors	

			are on file at RVAAP. (These need to go to Christy Esler and Debbie Dillon of MKM).	
19	13/16-17	Text addition requested.	Please add text to the revised workplan that details how the line spacing will be determined and that 100% coverage of the area will be obtained with the selected spacing.	
20	16/fig 6	Schedule revision requested.	<p>a. There should only need to be 2 versions of the workplan: draft and final. This will cut a significant amount of time from the schedule.</p> <p>b. If an Ohio EPA review end date falls on a Sunday, it is bumped to the following Monday.</p> <p>c. On item #18 – there should be a 45 day review time. Although it generally does not take that long, with an unknown workload, this is the amount of time that needs to be scheduled (as per the Orders).</p>	



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 10, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
WBG ESS, AMENDMENT 2

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Explosives Safety Submission for the MEC Survey and Munitions Response of Winklepeck Burning Grounds, Amendment 2." This document, dated September 2007 and received at Ohio EPA, NEDO, on September 28, 2007, was prepared for the U.S. Army Technical Center for Explosives Safety by MKM Engineers, Inc., under contract number W912QR-04-D-0040-D013.

This document was compared to the previous draft, dated November 2006, and Ohio EPA comments, dated November 29, 2006.

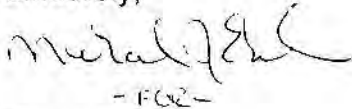
1. General: Please be aware of disposal requirements for the excavated soils. Contaminated soils will not be allowed to remain on site for an extended period of time, as happened after the last action.
2. General: In the next iteration of the Explosives Safety Submission (ESS), please ensure that details are added into the text that deal with the removal of Pad 70. Pad 70 is now under contract and will be handled as part of this initiative. Add these details to all applicable portions of the text and figures. (Sections 1, 1, 3.2, after 6.9.3.2; and figures 3 and 6.)
3. General: Include, as an appendix, the original approved ESS.
4. Section 1.1: Add asbestos as a constituent of concern (COC).
5. Section 6.9.1: Coordinate the staging area with the Ohio Army National Guard (OHARNG).

IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
OCTOBER 10, 2007
PAGE 2

6. Section 6.9.3.1 (second last sentence): Change "regarded" to "re-graded."
7. Clarification: Why were sections 6.9.4, 6.9.5, 6.9.6, 6.9.7, 6.9.8, 6.9.9, 6.9.10, and 6.9.11 deleted from this iteration of the ESS?
8. Clarification: In section 9.3, please clarify how long it is anticipated that Munitions and Explosives of Concern (MEC) items will be stored in a designated magazine?
9. Figure 3: Coordinate the staging area with the OHARNG.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



- F02 -

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
John Jent, USACE Louisville
Katie Elgin, OHARNG RTLS
Srini Neralla, MKM Houston
Kate Anthony, MKM Sacramento

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 12, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTY
MUSTARD AGENT GEOPHYSICAL
WORKPLAN

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Draft Final Work Plan, Geophysical Investigation, Suspected Mustard Agent Burial Site, Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated September 2007 and received at Ohio EPA, NEDO, on October 2, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District by Environmental Quality Management (EQM), under contract number W912QR-04-D-0036.

This document was compared to the draft version, dated August 2007, and Ohio EPA comments, dated August 22, 2007.

Ohio EPA has the following comments on the revised document:

1. In future submissions, please follow the convention of labeling the various versions, i.e., preliminary-draft, draft, and final.
2. Remove line numbers from the final document.
3. On figure 3, please provide the unit of measurement for the presented scale.
4. Page 6, line 19: change RVAPP to RVAAP.
5. On figure 5, please provide the unit of measurement for the presented scale.
6. Page 15, line 17: change filed to field.
7. Attachment 3. Although Ohio EPA does not have regulatory jurisdiction over health and safety plans, the following are offered for your consideration:
 - a. Page xxxiii – remove the FGWMPP acronym.




MR. IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
OCTOBER 12, 2007
PAGE 2

- b. Page xxxiv, lines 25 and 29 – remove references to the FGWMPP and identify the correct project.
- c. Page 1-2, lines 22-23 – remove this sentence, and insert the particular contaminants that may be found at this Area of Concern (AOC).
- d. Page 2-1: The text in the beginning of this section indicates that munitions and explosives of concern (MEC) are a potential health and safety issue. The table below does not anticipate MEC as an issue. Rectify the disconnect.
- e. In section 3, identify the people by name who will be occupying the key contractor positions.

As required under the June 2004 Director's Final Finding and Orders, please provide responses to these comments within fifteen (15) calendar days and a revised workplan within thirty (30) calendar days from receipt of this correspondence.

If you have any questions, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Glen Beckham, USACE Louisville
Rick Hockett, USACE Louisville
Katie Elgin, OHARNG RTLS
Mark Krivansky, AEC
John Miller, EQM

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA NEDO DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

November 17, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL MUSTARD AGENT WORK PLAN

Mr. Mark Patterson
Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Final Work Plan, Geophysical Investigation, Suspected Mustard Agent Burial Site, Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated November 15, 2007 and received at Ohio EPA on the same date, was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management (EQM), under contract number W912QR-04-D-0026.

This document was compared to the draft work plan and the comment response tables.

The final workplan is approved, so that the geophysical field work can be conducted in December, 2007. However, please note the following:

1. On figure 3, please check the current depiction of the topographic lines against the most recent topographic data available for this area. In the geophysical report that is prepared from the field work, please ensure that the topographic lines are accurate.
2. On page xxix of the site safety and health plan, please ensure that there is an approved sign-off page on site for the start of field activities.
3. Andrew Kocher of Ohio EPA will most likely be providing field oversight of the geophysical work in December. In speaking with him last Friday (November 16, 2007), he indicated that the field area may be slightly different from the depiction in Figure 3. Please contact Mr. Kocher (330-963-1200) and the USACE representatives, to make sure that the field visit portion of the July 20, 2006 meeting meshes with the in-office meeting recollections of the former employees and the proposed limits of work.



MR. MARK PATTERSON, FACILITY MANAGER
RAVENNA ARMY AMMUNITION PLANT
NOVEMBER 17, 2007
PAGE 2

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 27, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
~~LOAD LINE 6 DRAFT RI COMMENTS~~

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the four-volume document entitled: "Draft Report for the Remedial Investigation at Load Line 6 (RVAAP-33)." This document, dated June, 2007, and received on June 4, 2007, was prepared for the U.S. Army Joint Munitions Command (JMC) by MKM Engineers under contract number DAAA09-02-C-0036.

Although the document was received on June 4, 2007, the actual start date for the review was revised to be June 15, 2007 because there wasn't an updated Cooperative Agreement (CA) in place that would allow for Ohio EPA review. On May 08, 2007, the Army requested that the final Remedial Investigation (RI) report for Load Line 6 be extended to August 23, 2007. The August 23, 2007 extension was granted by Ohio EPA on May 08, 2007. As such, the Ohio EPA expects to receive the final RI report on or before the August 23, 2007 date.

Attached are comments from all Ohio EPA reviewers in the Division of Emergency and Remedial Response (DERR) and Division of Drinking and Ground Waters (DDAGW).

If you have any questions concerning this correspondence, or attached comments, please do not hesitate to contact me at 330-963-1221.

Sincerely,

Eileen T. Mohr, Project Manager
Division of Emergency and Remedial Response

ETM:dms

attachment

cc: Bonnie Buthker, Ohio EPA SWDO DERR
Conni McCambridge, Ohio EPA NEDO DDAGW
Mark Krivansky, AEC
Jeff Gollon, TACOM
Glen Beckham, USACE Louisville
Rick Hockett, USACE Louisville
Angela Schmidt, USACE Louisville
Tom Chanda, USACE Louisville
Srinu Neralla, MKM Houston
Kate Anthony, MKM Sacramento

cc: Mike Eberle, Ohio EPA NEDO DERR
Todd Fisher, Ohio EPA NEDO DERR

Draft Report for the Remedial Investigation at Load Line 6 (RVAAP-33), Ravenna Army Ammunition Plant
Reviewed by: Eileen T. Mohr, Ohio EPA NEDO DERR, Conni McCambridge, Ohio EPA NEDO DDAGW, Bonnie
Buthker, Ohio EPA SWDO DERR
Date: July 27, 2007

Cmt. #	Page #/ Line #	Comment	Recommendation/ Requirement	Response
1	General	Thank you for numbering the lines – it really helps in the review and comment process.	No changes required.	
2	General	The cover sheets and spines should indicate that this is a Phase I RI as stated on page 4-2.	Given that there are data gaps, and that the nature and extent of contamination (vertical and horizontal) was not established, this effort more accurately reflects a Phase I RI effort. Please make the necessary changes on the cover sheets, spines and at appropriate occurrences in the text.	
3	ES – general	Any changes made to the text of the report should be reflected in the ES.	Make any necessary changes.	
4	ES-1/11-15	The four bullets list the objectives of the RI.	There should be verbiage inserted into the ES at the appropriate spot which indicates whether or not the objectives were achieved. For example, nature and extent was not determined.	
5	ES-1/11-15	The four bullets list the objectives of the RI, one of which is to determine the nature and extent of contamination.	Rectify the disconnects within the text.	

		The text on pg 4-1/33 says that the intent was not to define nature and extent.		
6	ES-2/1-2	The text indicates that nitrocellulose was detected in the method blank. It sounds like there is an issue with the lab.	Please provide additional details as to what corrective action(s) were taken.	
7	ES-4/13	The text references COPCs for aquatic media, yet does not specify whether it is sediment, surface water, or both.	Indicate the appropriate media.	
8	ES-4/21-25	The text indicates that contaminants in soil and sediment may be leaching into the groundwater and surface water; followed by the statement that this is unlikely due to the observed contaminant levels.	If this is not a viable mechanism, then how did the contaminants appear in the surface water and groundwater?	
9	ES-4/22-24 through ES-5/21	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the human health risk assessment?	
10	ES-5/22-24	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the ecological health risk assessment?	
11	ES-5/29	Text revision required.	Revise text to read: "...additional sampling will be necessary to fully..."	
12	ES-5/31 through ES-6/7	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the ecological and human health risk	

			assessments.	
13	1-1/4-5	Text change requested.	Change "Office" to "Division" and "BRACO" to "BRACD."	
14	1-1/27-28	The second bullet indicates that one of the objectives of the RI is to determine the nature and extent of contamination. The text on pg 4-1/33 says that the intent was not to define nature and extent.	Rectify the disconnects within the text.	
15	1-2	Figure addition requested.	Add a north arrow to the maps.	
16	1-3/2	Text revision requested.	Change "areas of concern" to "area of concern."	
17	1-3/14	Text change requested.	Change "BRACO" to "BRACD."	
18	1-4/18	The text references PETN.	Add PETN to the acronym list.	
19	2-3/12-13	The text indicates that the soils varied with both lateral and vertical extent.	Please clarify this statement. Varied with what? Composition? Thickness?	
20	2-3/21-23	The text discusses the extent of the Hiram and Lavery tills as well as the location of LL-6.	Although it is clear from looking at Figure 2-1, adjust the text to indicate that LL6 is in the area of the Hiram till.	
21	2-3/33-34	The text discusses the extent of the Hiram till as well as the location of LL-6.	Although it is clear from looking at Figure 2-1, adjust the text to indicate that LL6 is in the area of the Hiram till.	
22	2-5/20-22	The text states: "The oldest outcropping bedrock that subcrops at the surface within the facility..."	Please adjust the text so that the intent/meaning of the sentence is clear to the average reviewer.	
23	2-5	A figure illustrating the bedrock geology of RVAAP was not provided in the report.	Please provide a bedrock geology map for RVAAP.	

24	2-5/36	The text indicates that both the Pottsville and Cuyahoga are formations.	Revise the text to indicate: "... Pottsville Formation and Cuyahoga Group..."	
25	2-6 through 2-9	Groundwater elevations are presented on Figures 2-3 through 2-6; however, there is no corresponding collection date for this information in the legend.	Add this information to the revised figures.	
26	2-10/14	The text discusses the location of Connoquenessing, Mercer and Sharon Members and then seemingly indicates that LL6 is located in the western portion of the facility.	Other portions of the text (1-4/21 and 2-3/23) indicate that LL6 is in the south-central portion of the facility. Rectify the disconnects in the text and clarify the bedrock stratigraphy in the LL6 area.	
27	2-11/25	The text indicates that the highest yield comes from the quartz-pebble conglomerate facies.	Change quartz to quartzite.	
28	2-11/25-28	The text in these 2 sentences is redundant.	Revise the text.	
29	2-12/3	The text indicates that the highest yield comes from the quartz-pebble conglomerate facies.	Change quartz to quartzite.	
30	2-13/31	Text revision requested.	Change "growthin: to "growth in."	
31	2-16/21-23	The text indicates that during D/D activities, proper protocols were followed, and as such, there is no assumed impact on the RI sampling locations.	The Ohio EPA does not agree that there have been no impacts solely because protocols have been followed. How will it be demonstrated that there have been no impacts? Will this be done during Phase II activities?	
32	3-2/22	Text addition requested.	Add bgs after the cited depth	

			interval.	
33	3-2/29	Clarification requested.	Define what is meant by "suspect soil."	
34	3-5/16	The third bullet indicates that one of the objectives of the RI is to determine the nature and extent of contamination. The text on pg 4-1/33 says that the intent was not to define nature and extent.	Rectify the disconnects within the text.	
35	3-5/19-20	Clarification requested.	The text in this section indicates that the 37 samples were analyzed for explosives and metals. The text on page 4-2 indicates that 5 samples were analyzed for explosives. The chart on page 3-6 says that 10% were analyzed for explosives. Rectify the disconnects in the various portions of the text.	
36	3-6/ Table 3-2	The chart indicates that 10% of the obtained samples were analyzed for explosives. This was based upon an approved scope of work and workplan which was based upon the best available information regarding the historical processes at this load line.	However, based upon the Phase I results, secondary explosives have been found at this Load Line. As such, additional sampling to determine the nature and lateral/vertical extent of explosives contamination needs to be conducted. We may also need to re-think the percentages of other analytes that are looked for in the second phase of this investigation.	
37	3-6/ Table 3-2	Table correction requested.	Please revise the spelling of explosives in the laboratory	

			parameters column for groundwater.	
38	3-7/8	Clarification requested.	The text in this section indicates that the 49 samples were analyzed for explosives and metals. The text on page 4-16 indicates that 5 samples were analyzed. Rectify the disconnects in the various portions of the text.	
39	3-9/26	The text indicates that monitoring well #5 was plugged. However, the report did not provide any abandonment/plugging procedures.	Please provide this in the revised text.	
40	3-11/ 10-17	The text in this section discusses how subsurface samples were split into 2 parts (one into pre-cleaned jars, and one into bags for headspace readings). The text then further discusses how it was determined which samples were <i>collected</i> , i.e. either from the zone with the highest PID readings or from above the saturated zone (if no detects).	This should be a discussion of how the decision was made to submit which sample interval to the lab, not how the samples are determined for collection purposes... since the samples were already collected.	
41	3-13/14	The text indicates that groundwater elevations were collected on three separate occasions. However, only 2 sets of groundwater elevation data were presented in Table 3-3.	Please provide the readings obtained during the other sampling event and a discussion concerning the omission of the third set of groundwater data.	
42	3-13/Table	The note on the table indicates	Please clarify what is meant by	

	3-3	that the groundwater elevations presented in Table 3-3 were not used for groundwater surface mapping. However, potentiometric surface maps presented in section 4.2.1 (figures 4-18 and 4-19) illustrate those elevations presented in Table 3-3.	the table note.	
43	3-14/14-16	The text indicates that four locations were selected to evaluate whether contaminants were impacting the surface water at LL6.	Figure 3-4 shows 9 surface water sampling locations. Rectify the disconnect.	
44	3-19/8	Text clarification requested.	Revise the text to read: "...from 1-3 ft bgs." (Put in a deeper interval if applicable.)	
45	3-22 and Appendix U	The text indicates that the QC samples for this project included MS/MSD samples and that their results provided information about the effect of the sample matrix on the measurement method. However, the data validation text in Appendix U indicates that the MS/MSD was run only during Method 8330 propellants. This is not in accordance with section 4.5 (pg 4-5) of the 2003 SAP.	Please provide an explanation as to the omission of MS/MSD samples/testing. Please also include revised text in section 3.2.2 and appendix U to include this explanation and maintain consistency.	
46	4-1/33-34	The text in this section contradicts several other passages in the text which	Revise the text for consistency.	

		indicate that the intent of this study was to determine nature and extent of contamination. (See previous comments in this matrix.)		
47	4-1/34-36	The text indicates that additional work will be based upon the results of the risk assessments (ecological and human health). Additional work will be required due to the identified data gaps, not the results of the current risk assessments.	Revise the text.	
48	4-2/21	The text indicates that selected site-related contaminants are depicted in several figures.	Discuss the basis on which these SRCs were selected.	
49	4-2/34-35	The text indicates that nitrocellulose was detected above the RVAAP background.	Please specify that the background for nitrocellulose at RVAAP is set at zero.	
50	4-2/37	The text indicates that nitrocellulose was detected in 5 subsurface soil samples.	Since this is the surface soil section of the report, please change to surface soil (and ensure that 5 is the correct number of samples).	
51	4-7/fig 4-5	The figure depicts cadmium surface soil results.	On what basis was this analyte chosen?	
52	4-8/fig 4-6	The figure depicts chromium surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
53	4-9/fig 4-7	The figure depicts copper surface soil results.	a. On what basis was this analyte chosen?	

			b. On what basis were the concentration ranges selected?	
54	4-10/fig 4-8	The figure depicts lead surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
55	4-11/fig 4-9	The figure depicts magnesium surface soil results.	a. On what basis was this analyte chosen? (Especially since Mg is an essential nutrient.) b. On what basis were the concentration ranges selected?	
56	4-12/fig 4-10	The figure depicts mercury surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
57	4-13/fig 4-11	The figure depicts zinc surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
58	4-16/110	Text change requested.	Change text to read: "No pesticides were detected..."	
59	4-16/15-20	Text clarification requested.	Please clarify that if some SVOCs were detected, they were above the established installation-wide background concentrations.	
60	4-16/25-26	Data gap.	Based upon the Phase I results, secondary explosives have been found at this Load Line. As such, additional sampling to determine	

			the nature and lateral/vertical extent of explosives contamination needs to be conducted. We may also need to re-think the percentages of other analytes that are looked for in the second phase of this investigation.	
61	4-16/35	Text change requested.	Change text to read: "...and vertical extent of contamination for..."	
62	4-17/1-2	Text change requested.	The Ohio EPA does not concur that the lateral extent of contamination has been determined. Adjust the text accordingly.	
63	4-17/2-4	The text indicates that selected site-related contaminants are depicted in several figures.	Discuss the basis on which these SRCs were selected.	
64	4-17/10	The text indicates that no explosives were detected in the subsurface soil samples. However since there are only 5 samples and surface soil has indicated the presence of secondary explosives, there is the potential for explosives to be in the sub-surface soil.	This represents a data gap. Add a statement to the text.	
65	4-21/ figure 4-15	The figure depicts beryllium subsurface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
66	4-22/ figure	The figure depicts lead	a. On what basis was this analyte	

	4-16	subsurface soil results.	chosen? b. On what basis were the concentration ranges selected?	
67	4-23/ figure 4-17	The figure depicts mercury subsurface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
68	4-26/ table 4-6	Table 4-6 is entitled: "Hydraulic Conductivity and Water Level Measurements." However, water level measurements were not included in the table.	Revise the table to add water level measurements, or indicate where they can be found and change the title of the table.	
69	4-26/6	Line 5 states that MW-001 was installed at a location believed to be upgradient to LL6 and can be used to characterize the upgradient groundwater. However, figure 4-20 indicates that the nitrocellulose concentration in this well is 100 ug/l. While this concentration is qualified as BJ it is unclear as to whether MW-001 is upgradient of LL6.	Potentiometric surface maps indicate that MW-001 is located upgradient of LL6. However, the presence of nitrocellulose is suggestive of facility impact upon the groundwater. Provide a discussion in the revised text to discuss this issue.	
70	4-26/12-13	The text indicates that the sewer lines at LL6 may be "effectively draining groundwater away from this area." However, additional discussion regarding the integrity of the sewer lines at LL6 was not provided.	Please provide additional information to support this conclusion.	

71	4-26/27-28	The text states that several groundwater constituents were detected at concentrations greater than the Region 9 PRGs for residential soil.	It is not clear why the groundwater results are being compared to the soil PRGs. Please clarify.	
72	4-27/figure 4-18	The figure has two arrows delineating the groundwater flow direction.	Please follow established conventions while drawing flow direction arrows.	
73	4-28/figure 4-19	The figure has two arrows delineating the groundwater flow direction.	Please follow established conventions while drawing flow direction arrows.	
74	4-29/11	The text indicates that nitrocellulose was found in the method blank.	Add text to the report that indicates what the laboratory's explanation was for this occurrence. This should not be happening. What corrective actions were initiated?	
75	4-32/ figure 4-22	Figure correction requested.	Change the groundwater concentration units to be either ug/l or mg/l.	
76	4-33/19-20	The text indicates that groundwater results are being compared to Region 9 residential soil PRGs.	Please clarify why this comparison is being made.	
77	4-33/23-24	The text indicates that groundwater results are being compared to Region 9 residential soil PRGs.	Please clarify why this comparison is being made.	
78	4-34/6-7	The text discusses the one surface water sample that was collected for the full analytical suite.	This is a potential data gap that needs to be evaluated in Phase 2.	
79	4-34/13	The text indicates that surface	Please clarify why this comparison	

		water results are being compared to Region 9 residential soil PRGs.	is being made.	
80	4-34/29-32	The text indicates that nitrocellulose was found in the method blank.	Add text to the report that indicates what the laboratory's explanation was for this occurrence. This should not be happening. What corrective actions were initiated?	
81	4-36/figure 4-24	Figure correction requested.	Change the surface water concentration units to be either ug/l or mg/l.	
82	4-37/figure 4-25	Figure correction requested.	Change the surface water concentration units to be either ug/l or mg/l.	
83	4-40/4	Text change requested.	Change surface soil to surface water.	
84	4-40/9-16	The text discusses the three sediment samples that were collected for the full analytical suite.	This is a potential data gap that needs to be evaluated in Phase 2.	
85	4-40/22-26	Text change requested.	Clearly state that the nature and extent of sediment contamination at and emanating from this AOC has not been delineated.	
86	4-41/figure 4-26	Figure correction requested.	Change the sediment concentration units to be either ug/kg or mg/kg.	
87	4-45/3	Text change requested.	Change subsurface soil to sediment.	
88	4-45/5-7	The text indicates that nitrocellulose was found in the method blank.	Add text to the report that indicates what the laboratory's explanation was for this	

			occurrence. This should not be happening. What corrective actions were initiated?	
89	4-45/9	Text change requested.	Change surface water to sediment.	
90	4-47	Text addition requested.	Add text that indicates that all SVOCs were detected above installation background, since those concentrations are set to zero.	
91	4-110/ table 4-7	Table revision requested.	Set aluminum background to zero.	
92	5-1/16-17	Text revision requested.	This sentence needs to be re-stated so that it is less definitive. Given that there are so many data gaps, the statement that "little contamination was detected at LL-6" cannot be made with certitude.	
93	5-4/22	Text change requested.	Change "orgnometallic" to "organometallic."	
94	5-14/3	The text indicates that sewers and manholes were plugged.	Add details to the text regarding the plugging (materials, # of linear feet plugged, etc.).	
95	5-15/1-3	The text indicates that because of the lack of pesticide detections that they are not as important as other LL6 contaminants and are not discussed further.	Is this a function of lack of detects, or a function of inadequate sample numbers? This may represent another LL6 data gap.	
96	5-15/23-27	This portion of the text discusses explosives and propellant compounds. There are relatively few detects of these compounds.	Is this a function of lack of detects, or a function of inadequate sample numbers? This may represent another LL6 data gap.	

97	5-16/1-3	This portion of the text discusses explosives and propellant compounds. There are relatively few detects of these compounds.	Is this a function of lack of detects, or a function of inadequate sample numbers? This may represent another LL6 data gap.	
98	5-23/1	The text indicates that "Sewer lines containing detectable levels of contaminants are no longer in use." That may be the case, but it does not speak at all to the issue of the integrity of the sewer lines or whether or not they represent preferable pathways for contaminant migration.	Add text to the revised reports that discusses this issue.	
99	5-23/ section 5.3.1/33	<p>The text indicates that the leaching of soil contaminants into the groundwater was investigated at the AOC. Three metals were detected at concentrations in excess of the soil to groundwater SSLs. Of these three metals (aluminum, arsenic and cobalt), only arsenic was detected in groundwater samples from the AOC wells. Based upon the observed aqueous concentrations of arsenic, it was concluded that the potential for migration of this metal is low.</p> <p>Although not explicitly stated in the report, this conclusion appears to be based upon the</p>	<p>a) Provide a discussion as to whether the soil to groundwater (leaching) pathway should be ruled out based on the size of the contaminated area and the potential impact on groundwater given the known COPC concentrations.</p> <p>b) Discuss whether it can be assumed that the current concentrations of arsenic in the groundwater are in a steady state condition with the known soil arsenic concentrations. For example, what site-specific information can support the existence of a steady state condition? If a steady state condition cannot be demonstrated,</p>	

		assumption that groundwater conditions have stabilized with the soil concentrations, and that groundwater concentrations are not expected to increase further. It has not been demonstrated that groundwater concentrations of these metals are not increasing or they have been stabilized. If these sources remain in the soil, the possibility of leaching in the future cannot be ruled out.	we recommend that the potential impact of leaching of soil contaminants to groundwater be evaluated through modeling (ex. SESOIL).	
100	5-23/29-36	The text in this section discusses arsenic concentrations in groundwater compared to the installation background.	Add a discussion regarding the concentrations with respect to the MCL.	
101	5-25/lines 1 and 10	The text in line 1 states the "final" factor and in line 10 states the "last" factor for affecting soil to groundwater migration.	Only one can be last. Revise accordingly.	
102	5-26/29-32	This section briefly discusses bis (2-ethylyhexyl) phthalate and indicates that it is not site-related.	If this is the case, discuss the source of this compound.	
103	5-26/36-37	This section briefly discusses bis (2-ethylyhexyl) phthalate and indicates that it possible that it doesn't reflect onsite or offsite conditions.	Provide a clarification. (Instead of "off-site" is it meant that there may be a source off of the AOC but still on the facility?)	
104	5-28/9	The text indicates that the "reservoir of nitrocellulose is small."	On what basis is this statement made?	

105	5-29/4	Spelling change.	Change fuses to fuzes.	
106	5-29/5	Spelling change.	Change fuse to fuze.	
107	5-30/14	Text change requested.	Change text to read: "... more investigation will be..."	
108	5-30/ after 29	Add another bullet.	Add in the sewer lines as a potential migration pathway.	
109	5-31/7	Spelling correction.	Change "souththeast" to "southeast."	
110	5-31/32-34	The text indicates that arsenic was not detected in groundwater samples.	Arsenic was detected in groundwater. Revise the text.	
111	6-4/29	Date change requested.	Change date to April 2001.	
112	6-14/9-13	Text addition requested.	Clarify why the site-related compounds (especially the explosives compounds) were not identified as chemicals of concern for the risk assessment. Although table 2.1 in Appendix V shows the toxicological screening for all compounds, it would provide clarity to the reader to briefly summarize why these compounds were eliminated from the risk assessment.	
113	6-14/25-28	Text correction requested.	Arsenic background concentrations for RVAAP are 15.4 mg/kg in surface soil and 19.8 mg/kg in subsurface soil (not zero as referenced here).	
114	6-15/9-11	Text deletion or clarification requested.	The toxicological criteria used to select potential chemicals of concern for the risk assessment are hazard index values of 0.1.	

			The second statement of this paragraph (e.g. it does not exceed the PRG for the soil) does not apply and implies that aluminum is not being considered as a PCOC, when the bullet above indicates that this compound is retained as a potential COC.	
115	6-17/11-12	Clarification requested.	Was 4-nitroaniline retained or eliminated?	
116	6-19/4	The text indicates that: "...and may represent conditions."	Clarify what type of conditions.	
117	6-28/ Table 6-10	The footnotes to the table indicate that shading indicates different values from those presented in the facility-wide risk assessment manual and that NA means it is not applicable to this scenario. Both appear under the National guard/Trainer scenario.	This is confusing. Is the scenario applicable? If not, then the column shouldn't be shaded. If the scenario is not applicable, then it should be shaded but retain the original values.	
118	6-33/1-8	Clarification requested.	How does the National Guard trainee or National Guard resident trainer fit in with the engineering school personnel? Do we have enough information to evaluate an "engineering school scenario"?	
119	6-34/33-34	The text indicates that 2 receptors will be exposed to surface and sub-surface soil.	Clarify why the trainee would not potentially be exposed to subsurface soil, given that we expect disturbance down to 4 feet bgs.	
120	6-52/27-28	This sentence seems to be missing some words.	Please check and revise as necessary.	

121	6-53/ section 6.6.1	On page 8-1/27-28, the text states that the nature and extent of contamination has not been determined at LL-6. In addition, Ohio EPA previously stated that (at a minimum), sampling for secondary explosives was inadequate at LL-6. If the conclusions of the RI indicate that the nature and extent of contamination has not been determined, then the baseline human health risk assessment has serious limitations in its use.	Discuss this information in the uncertainty section of the risk assessment, so that the results of this document are consistent with the summary and conclusions of the entire RI. Once additional sampling is conducted, the human health risk assessment will need to include these new data before conclusions or recommendations for LL-6 can be finalized.	
122	6-61/28-30	The text indicates that BAP was detected in background surface soil concentrations up to 100 ug/kg and subsurface up to 200 ug/kg.	This may be an accurate statement, but background for BAP at RVAAP was set at zero. Add this information to the text.	
123	6-62/31-33	The text indicates that the current land use patterns for LL6 are set, per the FWHHRAM.	This is not entirely correct, as the engineering school was not on the table for the LL-6 AOC when the FWHHRAM was developed. Make this text less definitive.	
124	6-66/24	Text definition requested.	Define "relatively non-toxic."	
125	6-69/11-13	The text discusses having concentrations of BAP in background soil samples.	This may be an accurate statement, but background for BAP at RVAAP was set at zero. Add this information to the text.	
126	6-69/14-19	The text in this paragraph discusses USEPA information regarding the use of arsenic-based pesticides across the US.	Although this may be correct, please add information regarding the use of these pesticides that is site-specific.	

127	7-1/17	Text correction requested.	Change filed to field.	
128	7-1/25	Text correction requested.	Change LL-9 to LL-6.	
129	7-3/28	Text correction requested.	Change LL-9 to LL-6.	
130	7-46/ section 7.8.2	On page 8-1/27-28, the text states that the nature and extent of contamination has not been determined at LL-6. In addition, Ohio EPA previously stated that (at a minimum), sampling for secondary explosives was inadequate at LL-6.	Discuss this information in the uncertainty section of the risk ecological risk assessment, so that the results of this document are consistent with the summary and conclusions of the entire RI. Once additional sampling is conducted, the ecological risk assessment will need to include these new data before conclusions or recommendations for LL-6 can be finalized.	
131	8-1/ section 8.1.1	This section of the report discusses the nature and extent of contamination.	The fact that the nature and extent of contamination has not been determined at LL6 in most media must be more clearly stated in this section. Right now it is summarized in a 2 line sentence (27-28) and is easily overshadowed by the other text. Strengthen this portion of the text.	
132	8-2/6-7	This portion of the text references the fact that the sumps have been removed. However, the sewer lines remain, and as such, are a potential migration pathway for contaminants.	Add this to the revised text.	
133	8-2/ table 8-2	Table clarification requested.	Define what is meant by "not applicable" in this table.	

134	8-2/13-14	The text indicates that leaching of contaminants from soil/sediment is unlikely because high concentrations of contaminants were not detected.	Is it a function of this, or a function of the fact that there are significant data gaps. Re-word the text to indicate this possibility.	
135	8-7/10	Clarification requested.	Why is 10 E-04 being used? Discuss 10 E-05 and 10 E-06.	
136	8-7/14	Clarification requested.	Why is 10 E-04 being used? Discuss 10 E-05 and 10 E-06.	
137	8-7/27	Clarification requested.	Why is 10 E-04 being used? Discuss 10 E-05 and 10 E-06.	
138	9-1/5	Text revision requested.	Revise text to read: "...additional sampling will be..."	
139	9-1/7-14	Text clarification.	Please clarify whether this recommendation is being based on a 10 E-04 or 10 E-05 risk. (There was a lot of back and forth in section 8.)	
140	9-1/ section 9	Text addition requested.	Add in a recommendation that the Phase II evaluation of LL6 include filling data gaps and based upon the analytical results, re-evaluating the human health and ecological risk assessments.	
141	Appendices – general	For the submission of the final Phase 1 RI report, do NOT re-submit the appendices.	Only submit replacement cover sheets and spines.	
142	Appendices – general	For any future field efforts, please ensure that all field personnel follow the proper protocol of making changes – i.e. one line strike-through and initial.	No changes required for this effort.	

143	Appendices – general	For future efforts, please ensure that Region 9 vs. Region IX is used – ex. App. E, App. J, App. M, App. N, App. P	No changes required for this effort.	
144	Appendices – general	For future efforts, please ensure that COCs are completely filled out.	No changes required for this effort.	
145	Appendix F	If available, please provide the date for the USACE document entitled: "Rationale Behind Azide Screening."	Provide the date and it will be hand-written onto the appendix.	
146	Appendix F	If available, please provide the date for the MKM document entitled: "MKM Position Paper for RI Analytical Suite at LL#6."	Provide the date and it will be hand-written onto the appendix.	
147	Appendix U	This appendix contains the revised data validation reports. It is not clear as to what text was removed from the original validation reports.	In future efforts, if changes in the validation reports are made, in addition to the note on the front of the report, the changed language should be in redline/strikeout.	

Draft Report for the Remedial Investigation at Load Line 6 (RVAAP-33), Ravenna Army Ammunition Plant
Reviewed by: Eileen T. Mohr, Ohio EPA NEDO DERR, Conni McCambridge, Ohio EPA NEDO DDAGW, Bonnie
Buthker, Ohio EPA SWDO DERR
Date: July 27, 2007

Cmt. #	Page #/ Line #	Comment	Recommendation/ Requirement	Response
1	General	Thank you for numbering the lines – it really helps in the review and comment process.	No changes required.	
2	General	The cover sheets and spines should indicate that this is a Phase I RI as stated on page 4-2.	Given that there are data gaps, and that the nature and extent of contamination (vertical and horizontal) was not established, this effort more accurately reflects a Phase I RI effort. Please make the necessary changes on the cover sheets, spines and at appropriate occurrences in the text.	
3	ES – general	Any changes made to the text of the report should be reflected in the ES.	Make any necessary changes.	
4	ES-1/11-15	The four bullets list the objectives of the RI.	There should be verbiage inserted into the ES at the appropriate spot which indicates whether or not the objectives were achieved. For example, nature and extent was not determined.	
5	ES-1/11-15	The four bullets list the objectives of the RI, one of which is to determine the nature and extent of contamination.	Rectify the disconnects within the text.	

		The text on pg 4-1/33 says that the intent was not to define nature and extent.		
6	ES-2/1-2	The text indicates that nitrocellulose was detected in the method blank. It sounds like there is an issue with the lab.	Please provide additional details as to what corrective action(s) were taken.	
7	ES-4/13	The text references COPCs for aquatic media, yet does not specify whether it is sediment, surface water, or both.	Indicate the appropriate media.	
8	ES-4/21-25	The text indicates that contaminants in soil and sediment may be leaching into the groundwater and surface water; followed by the statement that this is unlikely due to the observed contaminant levels.	If this is not a viable mechanism, then how did the contaminants appear in the surface water and groundwater?	
9	ES-4/22-24 through ES-5/21	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the human health risk assessment?	
10	ES-5/22-24	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the ecological health risk assessment?	
11	ES-5/29	Text revision required.	Revise text to read: "...additional sampling will be necessary to fully..."	
12	ES-5/31 through ES-6/7	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the ecological and human health risk	

			assessments.	
13	1-1/4-5	Text change requested.	Change "Office" to "Division" and "BRACO" to "BRACD."	
14	1-1/27-28	The second bullet indicates that one of the objectives of the RI is to determine the nature and extent of contamination. The text on pg 4-1/33 says that the intent was not to define nature and extent.	Rectify the disconnects within the text.	
15	1-2	Figure addition requested.	Add a north arrow to the maps.	
16	1-3/2	Text revision requested.	Change "areas of concern" to "area of concern."	
17	1-3/14	Text change requested.	Change "BRACO" to "BRACD."	
18	1-4/18	The text references PETN.	Add PETN to the acronym list.	
19	2-3/12-13	The text indicates that the soils varied with both lateral and vertical extent.	Please clarify this statement. Varied with what? Composition? Thickness?	
20	2-3/21-23	The text discusses the extent of the Hiram and Lavery tills as well as the location of LL-6.	Although it is clear from looking at Figure 2-1, adjust the text to indicate that LL6 is in the area of the Hiram till.	
21	2-3/33-34	The text discusses the extent of the Hiram till as well as the location of LL-6.	Although it is clear from looking at Figure 2-1, adjust the text to indicate that LL6 is in the area of the Hiram till.	
22	2-5/20-22	The text states: "The oldest outcropping bedrock that subcrops at the surface within the facility..."	Please adjust the text so that the intent/meaning of the sentence is clear to the average reviewer.	
23	2-5	A figure illustrating the bedrock geology of RVAAP was not provided in the report.	Please provide a bedrock geology map for RVAAP.	

24	2-5/36	The text indicates that both the Pottsville and Cuyahoga are formations.	Revise the text to indicate: "... Pottsville Formation and Cuyahoga Group..."	
25	2-6 through 2-9	Groundwater elevations are presented on Figures 2-3 through 2-6; however, there is no corresponding collection date for this information in the legend.	Add this information to the revised figures.	
26	2-10/14	The text discusses the location of Connoquenessing, Mercer and Sharon Members and then seemingly indicates that LL6 is located in the western portion of the facility.	Other portions of the text (1-4/21 and 2-3/23) indicate that LL6 is in the south-central portion of the facility. Rectify the disconnects in the text and clarify the bedrock stratigraphy in the LL6 area.	
27	2-11/25	The text indicates that the highest yield comes from the quartz-pebble conglomerate facies.	Change quartz to quartzite.	
28	2-11/25-28	The text in these 2 sentences is redundant.	Revise the text.	
29	2-12/3	The text indicates that the highest yield comes from the quartz-pebble conglomerate facies.	Change quartz to quartzite.	
30	2-13/31	Text revision requested.	Change "growthin: to "growth in."	
31	2-16/21-23	The text indicates that during D/D activities, proper protocols were followed, and as such, there is no assumed impact on the RI sampling locations.	The Ohio EPA does not agree that there have been no impacts solely because protocols have been followed. How will it be demonstrated that there have been no impacts? Will this be done during Phase II activities?	
32	3-2/22	Text addition requested.	Add bgs after the cited depth	

			interval.	
33	3-2/29	Clarification requested.	Define what is meant by "suspect soil."	
34	3-5/16	The third bullet indicates that one of the objectives of the RI is to determine the nature and extent of contamination. The text on pg 4-1/33 says that the intent was not to define nature and extent.	Rectify the disconnects within the text.	
35	3-5/19-20	Clarification requested.	The text in this section indicates that the 37 samples were analyzed for explosives and metals. The text on page 4-2 indicates that 5 samples were analyzed for explosives. The chart on page 3-6 says that 10% were analyzed for explosives. Rectify the disconnects in the various portions of the text.	
36	3-6/ Table 3-2	The chart indicates that 10% of the obtained samples were analyzed for explosives. This was based upon an approved scope of work and workplan which was based upon the best available information regarding the historical processes at this load line.	However, based upon the Phase I results, secondary explosives have been found at this Load Line. As such, additional sampling to determine the nature and lateral/vertical extent of explosives contamination needs to be conducted. We may also need to re-think the percentages of other analytes that are looked for in the second phase of this investigation.	
37	3-6/ Table 3-2	Table correction requested.	Please revise the spelling of explosives in the laboratory	

			parameters column for groundwater.	
38	3-7/8	Clarification requested.	The text in this section indicates that the 49 samples were analyzed for explosives and metals. The text on page 4-16 indicates that 5 samples were analyzed. Rectify the disconnects in the various portions of the text.	
39	3-9/26	The text indicates that monitoring well #5 was plugged. However, the report did not provide any abandonment/plugging procedures.	Please provide this in the revised text.	
40	3-11/ 10-17	The text in this section discusses how subsurface samples were split into 2 parts (one into pre-cleaned jars, and one into bags for headspace readings). The text then further discusses how it was determined which samples were <i>collected</i> , i.e. either from the zone with the highest PID readings or from above the saturated zone (if no detects).	This should be a discussion of how the decision was made to submit which sample interval to the lab, not how the samples are determined for collection purposes... since the samples were already collected.	
41	3-13/14	The text indicates that groundwater elevations were collected on three separate occasions. However, only 2 sets of groundwater elevation data were presented in Table 3-3.	Please provide the readings obtained during the other sampling event and a discussion concerning the omission of the third set of groundwater data.	
42	3-13/Table	The note on the table indicates	Please clarify what is meant by	

	3-3	that the groundwater elevations presented in Table 3-3 were not used for groundwater surface mapping. However, potentiometric surface maps presented in section 4.2.1 (figures 4-18 and 4-19) illustrate those elevations presented in Table 3-3.	the table note.	
43	3-14/14-16	The text indicates that four locations were selected to evaluate whether contaminants were impacting the surface water at LL6.	Figure 3-4 shows 9 surface water sampling locations. Rectify the disconnect.	
44	3-19/8	Text clarification requested.	Revise the text to read: "...from 1-3 ft bgs." (Put in a deeper interval if applicable.)	
45	3-22 and Appendix U	The text indicates that the QC samples for this project included MS/MSD samples and that their results provided information about the effect of the sample matrix on the measurement method. However, the data validation text in Appendix U indicates that the MS/MSD was run only during Method 8330 propellants. This is not in accordance with section 4.5 (pg 4-5) of the 2003 SAP.	Please provide an explanation as to the omission of MS/MSD samples/testing. Please also include revised text in section 3.2.2 and appendix U to include this explanation and maintain consistency.	
46	4-1/33-34	The text in this section contradicts several other passages in the text which	Revise the text for consistency.	

		indicate that the intent of this study was to determine nature and extent of contamination. (See previous comments in this matrix.)		
47	4-1/34-36	The text indicates that additional work will be based upon the results of the risk assessments (ecological and human health). Additional work will be required due to the identified data gaps, not the results of the current risk assessments.	Revise the text.	
48	4-2/21	The text indicates that selected site-related contaminants are depicted in several figures.	Discuss the basis on which these SRCs were selected.	
49	4-2/34-35	The text indicates that nitrocellulose was detected above the RVAAP background.	Please specify that the background for nitrocellulose at RVAAP is set at zero.	
50	4-2/37	The text indicates that nitrocellulose was detected in 5 subsurface soil samples.	Since this is the surface soil section of the report, please change to surface soil (and ensure that 5 is the correct number of samples).	
51	4-7/fig 4-5	The figure depicts cadmium surface soil results.	On what basis was this analyte chosen?	
52	4-8/fig 4-6	The figure depicts chromium surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
53	4-9/fig 4-7	The figure depicts copper surface soil results.	a. On what basis was this analyte chosen?	

			b. On what basis were the concentration ranges selected?	
54	4-10/fig 4-8	The figure depicts lead surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
55	4-11/fig 4-9	The figure depicts magnesium surface soil results.	a. On what basis was this analyte chosen? (Especially since Mg is an essential nutrient.) b. On what basis were the concentration ranges selected?	
56	4-12/fig 4-10	The figure depicts mercury surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
57	4-13/fig 4-11	The figure depicts zinc surface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
58	4-16/110	Text change requested.	Change text to read: "No pesticides were detected..."	
59	4-16/15-20	Text clarification requested.	Please clarify that if some SVOCs were detected, they were above the established installation-wide background concentrations.	
60	4-16/25-26	Data gap.	Based upon the Phase I results, secondary explosives have been found at this Load Line. As such, additional sampling to determine	

			the nature and lateral/vertical extent of explosives contamination needs to be conducted. We may also need to re-think the percentages of other analytes that are looked for in the second phase of this investigation.	
61	4-16/35	Text change requested.	Change text to read: "...and vertical extent of contamination for..."	
62	4-17/1-2	Text change requested.	The Ohio EPA does not concur that the lateral extent of contamination has been determined. Adjust the text accordingly.	
63	4-17/2-4	The text indicates that selected site-related contaminants are depicted in several figures.	Discuss the basis on which these SRCs were selected.	
64	4-17/10	The text indicates that no explosives were detected in the subsurface soil samples. However since there are only 5 samples and surface soil has indicated the presence of secondary explosives, there is the potential for explosives to be in the sub-surface soil.	This represents a data gap. Add a statement to the text.	
65	4-21/ figure 4-15	The figure depicts beryllium subsurface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
66	4-22/ figure	The figure depicts lead	a. On what basis was this analyte	

	4-16	subsurface soil results.	chosen? b. On what basis were the concentration ranges selected?	
67	4-23/ figure 4-17	The figure depicts mercury subsurface soil results.	a. On what basis was this analyte chosen? b. On what basis were the concentration ranges selected?	
68	4-26/ table 4-6	Table 4-6 is entitled: "Hydraulic Conductivity and Water Level Measurements." However, water level measurements were not included in the table.	Revise the table to add water level measurements, or indicate where they can be found and change the title of the table.	
69	4-26/6	Line 5 states that MW-001 was installed at a location believed to be upgradient to LL6 and can be used to characterize the upgradient groundwater. However, figure 4-20 indicates that the nitrocellulose concentration in this well is 100 ug/l. While this concentration is qualified as BJ it is unclear as to whether MW-001 is upgradient of LL6.	Potentiometric surface maps indicate that MW-001 is located upgradient of LL6. However, the presence of nitrocellulose is suggestive of facility impact upon the groundwater. Provide a discussion in the revised text to discuss this issue.	
70	4-26/12-13	The text indicates that the sewer lines at LL6 may be "effectively draining groundwater away from this area." However, additional discussion regarding the integrity of the sewer lines at LL6 was not provided.	Please provide additional information to support this conclusion.	

71	4-26/27-28	The text states that several groundwater constituents were detected at concentrations greater than the Region 9 PRGs for residential soil.	It is not clear why the groundwater results are being compared to the soil PRGs. Please clarify.	
72	4-27/figure 4-18	The figure has two arrows delineating the groundwater flow direction.	Please follow established conventions while drawing flow direction arrows.	
73	4-28/figure 4-19	The figure has two arrows delineating the groundwater flow direction.	Please follow established conventions while drawing flow direction arrows.	
74	4-29/11	The text indicates that nitrocellulose was found in the method blank.	Add text to the report that indicates what the laboratory's explanation was for this occurrence. This should not be happening. What corrective actions were initiated?	
75	4-32/ figure 4-22	Figure correction requested.	Change the groundwater concentration units to be either ug/l or mg/l.	
76	4-33/19-20	The text indicates that groundwater results are being compared to Region 9 residential soil PRGs.	Please clarify why this comparison is being made.	
77	4-33/23-24	The text indicates that groundwater results are being compared to Region 9 residential soil PRGs.	Please clarify why this comparison is being made.	
78	4-34/6-7	The text discusses the one surface water sample that was collected for the full analytical suite.	This is a potential data gap that needs to be evaluated in Phase 2.	
79	4-34/13	The text indicates that surface	Please clarify why this comparison	

		water results are being compared to Region 9 residential soil PRGs.	is being made.	
80	4-34/29-32	The text indicates that nitrocellulose was found in the method blank.	Add text to the report that indicates what the laboratory's explanation was for this occurrence. This should not be happening. What corrective actions were initiated?	
81	4-36/figure 4-24	Figure correction requested.	Change the surface water concentration units to be either ug/l or mg/l.	
82	4-37/figure 4-25	Figure correction requested.	Change the surface water concentration units to be either ug/l or mg/l.	
83	4-40/4	Text change requested.	Change surface soil to surface water.	
84	4-40/9-16	The text discusses the three sediment samples that were collected for the full analytical suite.	This is a potential data gap that needs to be evaluated in Phase 2.	
85	4-40/22-26	Text change requested.	Clearly state that the nature and extent of sediment contamination at and emanating from this AOC has not been delineated.	
86	4-41/figure 4-26	Figure correction requested.	Change the sediment concentration units to be either ug/kg or mg/kg.	
87	4-45/3	Text change requested.	Change subsurface soil to sediment.	
88	4-45/5-7	The text indicates that nitrocellulose was found in the method blank.	Add text to the report that indicates what the laboratory's explanation was for this	

			occurrence. This should not be happening. What corrective actions were initiated?	
89	4-45/9	Text change requested.	Change surface water to sediment.	
90	4-47	Text addition requested.	Add text that indicates that all SVOCs were detected above installation background, since those concentrations are set to zero.	
91	4-110/ table 4-7	Table revision requested.	Set aluminum background to zero.	
92	5-1/16-17	Text revision requested.	This sentence needs to be re-stated so that it is less definitive. Given that there are so many data gaps, the statement that "little contamination was detected at LL-6" cannot be made with certitude.	
93	5-4/22	Text change requested.	Change "orgnometallic" to "organometallic."	
94	5-14/3	The text indicates that sewers and manholes were plugged.	Add details to the text regarding the plugging (materials, # of linear feet plugged, etc.).	
95	5-15/1-3	The text indicates that because of the lack of pesticide detections that they are not as important as other LL6 contaminants and are not discussed further.	Is this a function of lack of detects, or a function of inadequate sample numbers? This may represent another LL6 data gap.	
96	5-15/23-27	This portion of the text discusses explosives and propellant compounds. There are relatively few detects of these compounds.	Is this a function of lack of detects, or a function of inadequate sample numbers? This may represent another LL6 data gap.	

97	5-16/1-3	This portion of the text discusses explosives and propellant compounds. There are relatively few detects of these compounds.	Is this a function of lack of detects, or a function of inadequate sample numbers? This may represent another LL6 data gap.	
98	5-23/1	The text indicates that "Sewer lines containing detectable levels of contaminants are no longer in use." That may be the case, but it does not speak at all to the issue of the integrity of the sewer lines or whether or not they represent preferable pathways for contaminant migration.	Add text to the revised reports that discusses this issue.	
99	5-23/ section 5.3.1/33	<p>The text indicates that the leaching of soil contaminants into the groundwater was investigated at the AOC. Three metals were detected at concentrations in excess of the soil to groundwater SSLs. Of these three metals (aluminum, arsenic and cobalt), only arsenic was detected in groundwater samples from the AOC wells. Based upon the observed aqueous concentrations of arsenic, it was concluded that the potential for migration of this metal is low.</p> <p>Although not explicitly stated in the report, this conclusion appears to be based upon the</p>	<p>a) Provide a discussion as to whether the soil to groundwater (leaching) pathway should be ruled out based on the size of the contaminated area and the potential impact on groundwater given the known COPC concentrations.</p> <p>b) Discuss whether it can be assumed that the current concentrations of arsenic in the groundwater are in a steady state condition with the known soil arsenic concentrations. For example, what site-specific information can support the existence of a steady state condition? If a steady state condition cannot be demonstrated,</p>	

		assumption that groundwater conditions have stabilized with the soil concentrations, and that groundwater concentrations are not expected to increase further. It has not been demonstrated that groundwater concentrations of these metals are not increasing or they have been stabilized. If these sources remain in the soil, the possibility of leaching in the future cannot be ruled out.	we recommend that the potential impact of leaching of soil contaminants to groundwater be evaluated through modeling (ex. SESOIL).	
100	5-23/29-36	The text in this section discusses arsenic concentrations in groundwater compared to the installation background.	Add a discussion regarding the concentrations with respect to the MCL.	
101	5-25/lines 1 and 10	The text in line 1 states the "final" factor and in line 10 states the "last" factor for affecting soil to groundwater migration.	Only one can be last. Revise accordingly.	
102	5-26/29-32	This section briefly discusses bis (2-ethylhexyl) phthalate and indicates that it is not site-related.	If this is the case, discuss the source of this compound.	
103	5-26/36-37	This section briefly discusses bis (2-ethylhexyl) phthalate and indicates that it possible that it doesn't reflect onsite or offsite conditions.	Provide a clarification. (Instead of "off-site" is it meant that there may be a source off of the AOC but still on the facility?)	
104	5-28/9	The text indicates that the "reservoir of nitrocellulose is small."	On what basis is this statement made?	

105	5-29/4	Spelling change.	Change fuses to fuzes.	
106	5-29/5	Spelling change.	Change fuse to fuze.	
107	5-30/14	Text change requested.	Change text to read: "... more investigation will be..."	
108	5-30/ after 29	Add another bullet.	Add in the sewer lines as a potential migration pathway.	
109	5-31/7	Spelling correction.	Change "souththeast" to "southeast."	
110	5-31/32-34	The text indicates that arsenic was not detected in groundwater samples.	Arsenic was detected in groundwater. Revise the text.	
111	6-4/29	Date change requested.	Change date to April 2001.	
112	6-14/9-13	Text addition requested.	Clarify why the site-related compounds (especially the explosives compounds) were not identified as chemicals of concern for the risk assessment. Although table 2.1 in Appendix V shows the toxicological screening for all compounds, it would provide clarity to the reader to briefly summarize why these compounds were eliminated from the risk assessment.	
113	6-14/25-28	Text correction requested.	Arsenic background concentrations for RVAAP are 15.4 mg/kg in surface soil and 19.8 mg/kg in subsurface soil (not zero as referenced here).	
114	6-15/9-11	Text deletion or clarification requested.	The toxicological criteria used to select potential chemicals of concern for the risk assessment are hazard index values of 0.1.	

			The second statement of this paragraph (e.g. it does not exceed the PRG for the soil) does not apply and implies that aluminum is not being considered as a PCOC, when the bullet above indicates that this compound is retained as a potential COC.	
115	6-17/11-12	Clarification requested.	Was 4-nitroaniline retained or eliminated?	
116	6-19/4	The text indicates that: "...and may represent conditions."	Clarify what type of conditions.	
117	6-28/ Table 6-10	The footnotes to the table indicate that shading indicates different values from those presented in the facility-wide risk assessment manual and that NA means it is not applicable to this scenario. Both appear under the National guard/Trainer scenario.	This is confusing. Is the scenario applicable? If not, then the column shouldn't be shaded. If the scenario is not applicable, then it should be shaded but retain the original values.	
118	6-33/1-8	Clarification requested.	How does the National Guard trainee or National Guard resident trainer fit in with the engineering school personnel? Do we have enough information to evaluate an "engineering school scenario"?	
119	6-34/33-34	The text indicates that 2 receptors will be exposed to surface and sub-surface soil.	Clarify why the trainee would not potentially be exposed to subsurface soil, given that we expect disturbance down to 4 feet bgs.	
120	6-52/27-28	This sentence seems to be missing some words.	Please check and revise as necessary.	

121	6-53/ section 6.6.1	On page 8-1/27-28, the text states that the nature and extent of contamination has not been determined at LL-6. In addition, Ohio EPA previously stated that (at a minimum), sampling for secondary explosives was inadequate at LL-6. If the conclusions of the RI indicate that the nature and extent of contamination has not been determined, then the baseline human health risk assessment has serious limitations in its use.	Discuss this information in the uncertainty section of the risk assessment, so that the results of this document are consistent with the summary and conclusions of the entire RI. Once additional sampling is conducted, the human health risk assessment will need to include these new data before conclusions or recommendations for LL-6 can be finalized.	
122	6-61/28-30	The text indicates that BAP was detected in background surface soil concentrations up to 100 ug/kg and subsurface up to 200 ug/kg.	This may be an accurate statement, but background for BAP at RVAAP was set at zero. Add this information to the text.	
123	6-62/31-33	The text indicates that the current land use patterns for LL6 are set, per the FWHHRAM.	This is not entirely correct, as the engineering school was not on the table for the LL-6 AOC when the FWHHRAM was developed. Make this text less definitive.	
124	6-66/24	Text definition requested.	Define "relatively non-toxic."	
125	6-69/11-13	The text discusses having concentrations of BAP in background soil samples.	This may be an accurate statement, but background for BAP at RVAAP was set at zero. Add this information to the text.	
126	6-69/14-19	The text in this paragraph discusses USEPA information regarding the use of arsenic-based pesticides across the US.	Although this may be correct, please add information regarding the use of these pesticides that is site-specific.	

127	7-1/17	Text correction requested.	Change filed to field.	
128	7-1/25	Text correction requested.	Change LL-9 to LL-6.	
129	7-3/28	Text correction requested.	Change LL-9 to LL-6.	
130	7-46/ section 7.8.2	On page 8-1/27-28, the text states that the nature and extent of contamination has not been determined at LL-6. In addition, Ohio EPA previously stated that (at a minimum), sampling for secondary explosives was inadequate at LL-6.	Discuss this information in the uncertainty section of the risk ecological risk assessment, so that the results of this document are consistent with the summary and conclusions of the entire RI. Once additional sampling is conducted, the ecological risk assessment will need to include these new data before conclusions or recommendations for LL-6 can be finalized.	
131	8-1/ section 8.1.1	This section of the report discusses the nature and extent of contamination.	The fact that the nature and extent of contamination has not been determined at LL6 in most media must be more clearly stated in this section. Right now it is summarized in a 2 line sentence (27-28) and is easily overshadowed by the other text. Strengthen this portion of the text.	
132	8-2/6-7	This portion of the text references the fact that the sumps have been removed. However, the sewer lines remain, and as such, are a potential migration pathway for contaminants.	Add this to the revised text.	
133	8-2/ table 8-2	Table clarification requested.	Define what is meant by "not applicable" in this table.	

134	8-2/13-14	The text indicates that leaching of contaminants from soil/sediment is unlikely because high concentrations of contaminants were not detected.	Is it a function of this, or a function of the fact that there are significant data gaps. Re-word the text to indicate this possibility.	
135	8-7/10	Clarification requested.	Why is 10 E-04 being used? Discuss 10 E-05 and 10 E-06.	
136	8-7/14	Clarification requested.	Why is 10 E-04 being used? Discuss 10 E-05 and 10 E-06.	
137	8-7/27	Clarification requested.	Why is 10 E-04 being used? Discuss 10 E-05 and 10 E-06.	
138	9-1/5	Text revision requested.	Revise text to read: "...additional sampling will be..."	
139	9-1/7-14	Text clarification.	Please clarify whether this recommendation is being based on a 10 E-04 or 10 E-05 risk. (There was a lot of back and forth in section 8.)	
140	9-1/ section 9	Text addition requested.	Add in a recommendation that the Phase II evaluation of LL6 include filling data gaps and based upon the analytical results, re-evaluating the human health and ecological risk assessments.	
141	Appendices – general	For the submission of the final Phase 1 RI report, do NOT re-submit the appendices.	Only submit replacement cover sheets and spines.	
142	Appendices – general	For any future field efforts, please ensure that all field personnel follow the proper protocol of making changes – i.e. one line strike-through and initial.	No changes required for this effort.	

143	Appendices – general	For future efforts, please ensure that Region 9 vs. Region IX is used – ex. App. E, App. J, App. M, App. N, App. P	No changes required for this effort.	
144	Appendices – general	For future efforts, please ensure that COCs are completely filled out.	No changes required for this effort.	
145	Appendix F	If available, please provide the date for the USACE document entitled: "Rationale Behind Azide Screening."	Provide the date and it will be hand-written onto the appendix.	
146	Appendix F	If available, please provide the date for the MKM document entitled: "MKM Position Paper for RI Analytical Suite at LL#6."	Provide the date and it will be hand-written onto the appendix.	
147	Appendix U	This appendix contains the revised data validation reports. It is not clear as to what text was removed from the original validation reports.	In future efforts, if changes in the validation reports are made, in addition to the note on the front of the report, the changed language should be in redline/strikeout.	



State of Ohio Environmental Protection Agency

Northeast District Office

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Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 1, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
LOAD LINE 6 – FINAL RI REPORT

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO) and Southwest District Office (SWDO), Division of Emergency and Remedial Response (DERR) have received and reviewed the document entitled: "Final Report for the Phase I Remedial Investigation at Load Line 6 (RVAAP 33)." This document, dated August 2007 and received at Ohio EPA on August 22, 2007, was prepared for the U.S. Army Joint Munitions Command (JMC) by MKM Engineers under contract number DAAA09-02-C-0036.

This document was reviewed compared to the draft version, dated June 2007, and Ohio EPA comments, dated July 27, 2007.

Although the final RI report is approved, please note the following for the Phase II activities, which will need to be conducted at this Load Line. It is Ohio EPA's expectation that these changes will be incorporated into any future activities at this Load Line. Please do not submit replacement pages for this document, as it is considered final and approved.

1. Final documents do not contain line numbers.
2. On page 1-3, please note that in section 1.2.1 (second paragraph), some of the standard language regarding the land transfer to the National Guard Bureau (NGB) is missing. Please ensure that the agreed-upon language regarding the general facility description is used in all future submissions.
3. On page 3-11 (line 5), this activity (collect data about groundwater flow) should be the third bullet in the section (i.e., be aware of format).
4. On numerous figures, either the legend/key was not changed as requested or, if the legend was changed, there was no corresponding date change or revision number



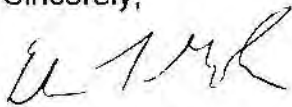
MR. IRV VENGER, ACTING FACILITY MANAGER
RAVENNA ARMY AMMUNITION PLANT
OCTOBER 1, 2007
PAGE 2

made to the figure. Please ensure that this occurs in the future. Examples of this (not all inclusive) are figures: 4-2, 4-3, 4-13, 4-20, 4-23, and 4-26.

5. Page 4-34 (line 14) the text should read surface water and not surface soil.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Connie McCambridge, Ohio EPA, NEDO, DDAGW
Mark Krivansky, AEC
Jeff Gollon, TACOM
Rick Hockett, USACE Louisville
John Jent, USACE Louisville
Glen Beckham, USACE Louisville
Angela Schmidt, USACE Louisville
Srini Neralla, MKM, Houston
Kate Anthony, Sacramento

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 31, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
LOAD LINE 9 DRAFT RI COMMENTS

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the five-volume document entitled: "Draft Report for the Remedial Investigation at Load Line 9 (RVAAP-42)." This document, dated May 2007 and received on May 30, 2007, was prepared for the U.S. Army Joint Munitions Command (JMC) by MKM Engineers under contract number DAAA09-02-C-0070.

Although the document was received on May 30, 2007, the actual start date for the review was revised to be June 15, 2007, because there wasn't an updated Cooperative Agreement (CA) in place that would allow for Ohio EPA review. On May 08, 2007, the Army requested that the final Remedial Investigation (RI) report for Load Line 9 be extended to August 23, 2007. The August 23, 2007 extension was granted by Ohio EPA on May 08, 2007. As such, Ohio EPA expects to receive the final RI report on or before the August 23, 2007 date.

Enclosed are comments from all Ohio EPA reviewers in the Division of Emergency and Remedial Response (DERR) and the Division of Drinking and Ground Waters (DDAGW).

If you have any questions concerning this correspondence, or enclosed comments, please do not hesitate to contact me at (330) 963-1148.

Sincerely,

Todd R. Fisher
Project Coordinator
Division of Emergency and Remedial Response

TRF/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Mark Krivansky, AEC
Glen Beckham, USACE Louisville
Angela Schmidt, USACE Louisville
Srini Neralla, MKM Houston
Kate Anthony, MKM Sacramento
Conni McCambridge, Ohio EPA, NEDO, DDAGW

Eileen Mohr, Ohio EPA, NEDO, DERR
Jeff Gollon, TACOM
Rick Hockett, USACE Louisville
Tom Chanda, USACE Louisville

ec: Mike Eberle, Ohio EPA, NEDO, DERR

Draft Report for the Remedial Investigation at Load Line 9 (RVAAP- 42), Ravenna Army Ammunition Plant
Reviewed by: Todd R. Fisher, Ohio EPA, NEDO/DERR; Conni McCambridge, Ohio EPA, NEDO/DDAGW; Bonnie
Buthker, Ohio EPA, SWDO/DERR
Date: July 31, 2007

Cmt. No.	Page # Line #	Comment	Recommendation	Response
1	General	Thank you for numbering the lines – it really helps in the review and comment process.	No changes required.	
2	General	The cover sheets and spines should indicate that this is a Phase I RI as stated on page 4-2.	Given that there are data gaps, and that the nature and extent of contamination (vertical and horizontal) was not established, this effort more accurately reflects a Phase I RI effort. Please make the necessary changes on the cover sheets, spines, and at appropriate occurrences in the text.	
3	General	Throughout the text, reference is made to depths at which certain contacts (i.e., weathered bedrock) and/or media (i.e., ground water levels), etc., are encountered.	Please make sure to reference bgs (below ground surface) or amsl (above mean sea level) when describing at which depths these items were encountered. Please make the appropriate changes throughout the text.	
4	General - ES	Any changes made to the text of the report should be reflected in the ES.	Make any necessary changes.	
5	Document Distribution, pg. xx	Elyse Meade is no longer with TACOM.	Please remove Elyse Meade from distribution list.	
6	ES, pg. ES-1, lines 14-18	The four bullets list the objectives of the RI.	There should be verbiage inserted into the ES at the appropriate spot which indicates whether or not the objectives were achieved. For example, nature and extent was not determined.	

7	ES, pg. ES-3, lines 12 -13, and lines 20-22.	The text indicates that nitrocellulose was detected in the method blank. It sounds like there is an issue with the lab.	Please provide additional details as to what corrective action(s) were taken.	
8	ES, pg. ES-4, lines 10-19	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the human health risk assessment?	
9	ES, pg. ES-4, lines 20-23.	Clarification.	How does the existence of data gaps mesh with the conclusions being drawn from the ecological health risk assessment?	
10	ES, Recommendations, pg. ES-4, lines 28 and 29.	The text states that "additional sampling may be necessary to fully identify the lateral and vertical extent of contamination at LL-9." In lines 4 through 6 on this same page, the text indicates that the lateral and vertical extent of contamination were not fully delineated.	Since full delineation of contamination has not been completed, please change "additional sampling may" to "additional sampling will" in the text.	
11	Section 1.0, pg. 1-1, lines 4-5.	The text makes reference to "U.S. Army Base Realignment and Closure Office (BRACO)." BRAC is now a "division," not an "office"	Please change "Office" to "Division" in the text. Also, change "BRACO" to "BRACD" and include this acronym in the Acronym List. Make sure to change this in other instances throughout the text.	
12	Figure 1-1, Ravenna Army Ammunition Plant, pg. 1-2	Figure requires several corrections.	<ul style="list-style-type: none"> a) Please remove "Erie R.R." and replace it with "NSCORP R.R." b) Please provide north arrow on figure. 	

			c) Please insert "Not to Scale" at the bottom of this figure below the State of Ohio graphic.	
13	Section 1.2.1, pg. 1-3, line 15	Text needs to be corrected.	Please remove the word "in."	
14	Section 1.2.1, pg. 1-3, lines 25 and 32.	Newton Falls is classified as a city, not a village.	Please change "Village of Newton Falls" to "City of Newton Falls."	
15	Section 1.2.3, pg. 1-6, line 15	The text references the acronym "TNA," but it is not explained in the Acronyms list (pg. xx).	Provide the acronym "TNA" on the Acronym list in the revised text.	
16	Figure 1-2, pg. 1-7	Figure requires several corrections.	<ul style="list-style-type: none"> a) Please add the Portage/Trumbull County border line. b) Please remove the red boundary line around LL-11 (RVAAP-44). c) Please provide a few major road names, such as Newton Falls Road, George Road, Paris-Windham Road, South Service Road, etc. 	
17	Section 1.2.4, pg. 1-9	The text in this paragraph describes the regulatory framework and drivers for RTLS/RVAAP and LL-9 AOC. The State of Ohio EPA Director's Final Findings and Orders (DFFO) has been omitted.	Please mention DFFO in this section.	

18	Section 2.3.2.1 (cross-section)	<p>a) Monitoring well designations differ between Figure 2-2 (i.e., NW-001) and Figures 2-3 through 2-6 (i.e., MW-01).</p> <p>b) Ground water elevations are presented in Figures 2-3 through 2-6. However, the collection date of these ground water elevation data is not given (see Table 3-3).</p>	<p>a) The monitoring well designation discrepancies should be corrected between the five figures.</p> <p>b) Please provide the collection date of the ground water elevation data presented in these figures.</p>	
19	Section 2.4.1, pg. 2-4	The text does not discuss the outwash deposits that are found in the eastern portion of the facility.	Please revise the text to include this information.	
20	Section 2.4.2, pg. 2-5	A figure illustrating the bedrock geology of RVAAP was not provided.	Please provide figure or generalized stratigraphic section.	
21	Section 2.4.2.1, pg. 2-5, lines 13 – 15.	The text states that “the oldest outcropping bedrock that subcrops at the surface within the facility...”	Please adjust the text so that the intent/meaning of the sentence is clear to the average reviewer.	
22	Section 2.4.2.1, pg. 2-5, line 29	The text indicates, “Pottsville and Cuyahoga Formations...”	Change all text to read, “Pottsville Formation and Cuyahoga Group.”	

23	Section 2.8, pg. 2-16, lines 4-10.	The text mentions ovate spikerush and tufted moisture-loving moss as animals listed as Ohio State Endangered. These two species are plants, not animals.	Please make the appropriate changes to the text.	
24	Section 3.1.6.3, pg. 3-9, lines 3 through 5.	The text states that "six subsurface soil samples (SB-055-0001-SO, LL9SB-056-0001-SO, LL9SB-059-0001-SO, LL9SB-061-0001-SO, LL9SB-065-0001-SO, and LL9SB-066-0001-SO) were collected at a VOC screening grid established east of the solvent building at LL-9 (Bldg DT-33)." However, sample locations LL9SB-065-0001 and LL9SB-066-0001-SO are not located anywhere near building DT-33, according to Figure 3-1.	Please make the appropriate changes to the text and/or Figure 3-1 to correct this discrepancy. Also please change "SB-055-0001-SO" to "LL9SB-055-0001-SO" in the text.	
25	Section 2.7, pg. 2-14, line 19	Newton Falls is classified as a city, not a village	Please change "Village of Newton Falls" to "City of Newton Falls."	
26	Table 3-2, pg. 3-6	The chart indicates that 10% of the obtained samples were analyzed for explosives. This was based upon an approved scope of work and workplan that	However, based upon the Phase I results, secondary explosives have been found at this Load Line. As such, additional sampling to determine the nature and lateral/vertical extent of explosives	

		was based upon the best available information regarding the historical processes at this load line.	contamination needs to be conducted. We may also need to re-think the percentages of other analytes that are looked for in the second phase of this investigation.	
27	Section 3.1.7, pg. 3-9, line 26	The text states that "one well (MW-001) was located in the up-gradient direction from LL9."	Potentiometric surface maps (Figures 4-16 through 4-18) provided in the submittal contradict this statement. Well MW-001 is not located in the upgradient direction of Load Line 9. Please revise the text.	
28	Section 3.1.7, pg. 3-11, line 17	The text states that the Technical Change Letter, dated 12 Nov 03, is located in Appendix Z.	Appendix Z does not exist, please provide the correct location of this letter.	
29	Section 3.1.7.3, pg. 3-12, line 17	The text stated that "VOC samples were collected with a 2 in bailer."	It is unclear what is meant by the term "2 in bailer." Please clarify the text.	
30	Section 3.1.10, pg. 3-16, line 23.	The text states that "in addition, 25-28 samples were collected from two monitoring well borehole locations and from the sediment sample locations." The text, as written, is unclear.	Please provide the exact amount of samples that were collected during this investigation.	
31	Section 3.1.12, pg. 3-20, lines 9-10	The text states that materials were disposed at the "county-wide regional disposal facility RDF landfill in East Sparta, Ohio." Proper names should be capitalized.	Please change "county-wide regional disposal facility RDF landfill" to "Countywide R & D Landfill regional disposal facility (RDF)."	

32	Section 3.2.2, pg 3-22 and Appendix U	The text indicates that QC samples for this project included "matrix spike/matrix spike duplicate" (MS/MSD) samples and that their results "... provided information about the effect of the sample matrix on the measurement methodology." However, the DATA Validation text in Appendix U indicates that MS/MSD was run only during Method 8330 Propellants. This is not in accordance with Section 4.5 (pg. 4-5) of the 2003 Sampling and Analysis Plan (SAP) for Load Line 9.	Please provide an explanation as to the omission of MS/MSD testing with all analytical methods, except propellants, during these sampling events. Please revise the texts in Section 3.2.2 and Appendix U to include this explanation and to maintain consistency.	
33	Section 3.3, pg. 3-24, lines 26-27	The text indicates that deviations from the work plan are documented in technical field change memos located in Appendix Z.	Appendix Z has been omitted. Please provide correct location for technical change memos.	
34	Section 4.0 - General	In the "NOTES" section of most of the figures, it states that if the result is equal to or above background, then the value is presented with a shaded/highlighted style. It also states that if the result is equal	Please revise all figures to indicate what a bolded value means. If this omission exists in the current LL-6 RI report, it must me corrected as well.	

		to or greater than background and PRG, then the value is presented with both a bold and shaded/highlighted style. However, it does not indicate what a bolded, non-shaded/highlighted style means. Does a bolded style mean greater than PRG?		
35	Section 4.2, Table 4-6	The table text does not indicate whether any monitoring well(s) will characterize the quality of ground water up-gradient (background) from the AOC. This is also not clarified in the rest of the submittal.	Please provide additional details concerning this issue.	
36	Section 4.2.1, pg. 4-23	Table 4-6 listed the hydraulic conductivity (K) values for all wells, as determined by slug testing. However, these values do not correspond with the K values provided in the last table of Appendix L.	Slug test information should be verified and the text and/or tables should be revised accordingly.	
37	Figure 4-19, pg. 4-28	A data box illustrated as LL9MW-003 is tied to the LL9MW-001 well location.	Please check all monitoring well locations and data boxes to make sure they match. Adjust any necessary conclusions made in the text.	
38	Figure 4-24, pg. 4-39	Antimony is missing from the LL9SD-002-0001-SD data box.	Please add Antimony as a parameter with a result of 0.81 mg/kg.	

39	Table 4-2	"Region IX" should be "Region 9."	Please make the appropriate changes to the table header for all pages affected.	
40	Table 4-5	"Region IX" should be "Region 9."	Please make the appropriate changes to the table header for all pages affected.	
41	Table 4-10	"Region IX" should be "Region 9."	Please make the appropriate changes to the table header for all pages affected.	
42	Table 4-12	"Region IX" should be "Region 9."	Please make the appropriate changes to the table header for all pages affected.	
43	Section 5.3.1, pg. 5-23	<p>The text indicates that the leaching of soil contaminants into ground water was investigated at the site. Six metals were detected at concentrations in excess of the "soil-to-groundwater SSLs [soil screening levels]..." SSLs [soil screening levels]..." Of these six metals, aluminum, cobalt, manganese, and vanadium were also detected in ground water samples from the AOC wells. Based on the observed aqueous concentrations, it was concluded that the potential of migration of these metals in ground water is low (Section 5.3.1, pg. 5-23, line 33).</p> <p>Although not explicitly stated in</p>	<p>Please address the following issues:</p> <ul style="list-style-type: none"> a) Provide a discussion whether the soil-to-ground water pathway should be ruled out based on the size of the contaminated area and the potential impact on ground water, given the known COPC concentrations. b) Please discuss whether it can be assumed that current conditions of contaminants in ground water are in a steady state condition with the known soil concentrations. For example, what site-specific information can support the existence of a steady state condition? If a steady state condition cannot be demonstrated, DDAGW recommends that the 	

		<p>the submittal, this conclusion appears to be based on the assumption that ground water concentrations have stabilized with the soil concentrations, and ground water concentrations are not expected to increase further. It has not been demonstrated that ground water concentrations of these metals are not increasing or have stabilized. If these sources of metal remain in the soil, the possibility of leaching in the future cannot be ruled out. This possibility should be considered and evaluated.</p>	<p>potential impact of leaching of soil contaminants to ground water be evaluated through modeling (e.g., SESOIL).</p>	
44	Section 6.2.2.1 pg. 6-5, lines 16-18	<p>The text here states that any explosive or propellant detected at LL-9 was considered to be site related regardless of frequency of detection. The text discusses that RDX and nitroguanidine were found in soils at the site, however, the text does not discuss why these compounds were screened out. According to the results listed on Table 7.1 of the Screening</p>	<p>Therefore, text should be included in the risk assessment to explain why these chemicals were not evaluated further in the HHRA, especially since RDX and nitroguanidine are related to past activities at LL-9.</p>	

		ecological risk assessment, RDX was detected in surface soil at a maximum concentration of 110 ug/mg and nitroguandine was detected at 89 ug/kg. Based on comparing these results to the U.S. EPA Region 9 PRG tables, it looks like the detection would not pass the toxicological screen. However, this cannot be verified (since the toxicological screening table referenced in the report is actually the table for LL-6).		
45	Section 6.2.2.3, pg. 6-8, line 1.	It appears that a symbol is missing, and is depicted as a box.	Please correct the units (the box) in this line.	
46	Section 6.3.3.1, pg. 6-29, lines 31 and 32	There appears to be missing text.	Please provide the reference included in the parentheses (e.g. as presented WHERE?).	
47	Section 6.5.3, pg. 6-45, lines 9-10.	Sentence is incomplete.	Please complete the following sentence: "Manganese at a concentration equal to RVAAP background would result in an HI of _____, and at a concentration equal to its Region 9 residential PRG would result in an HI of 5.	
48	Section 6.5.2.1 pg. 6-46, Table 6-13.	Incorrect "Media" is listed.	Please change "Deep Surface Water" to "Deep Surface Soil."	

49	Section 6.6.1. Page 6-52	On page 8-1, lines 28-30, it states that the nature and extent of contamination has not been fully determined. It also discusses that additional sampling may be required. In addition, Ohio EPA stated previously that sampling for secondary explosives was inadequate, based on screening sampling efforts that determined these chemicals were present at LL-9.	This information should be discussed in the uncertainty section of the risk assessment, so that the results of this document are consistent with the summary and conclusions of the entire RI. Once additional sampling is conducted, the human health risk assessment will need to include these new data before conclusions or recommendations for LL-9 can be finalized.	
50	Section 7.6.2, pg. 7-34, lines 31-36.	It appears that a symbol is missing, and is depicted as a box.	Please correct the units (the box) in these lines.	
51	Section 7.8.3, Ecological effects data, page 7-47	On page 8-1, lines 28-30, it states that the nature and extent of contamination has not been fully determined. It also discusses that additional sampling may be required. In addition, Ohio EPA stated previously that sampling for secondary explosives was inadequate, based on screening sampling efforts that determined these chemicals were present at LL-9.	This information should be discussed in the uncertainty section of the ecological risk assessment, so that the results of this document are consistent with the summary and conclusions of the entire RI. Once additional sampling is conducted, the ecological risk assessment will need to include these new data before conclusions or recommendations for LL-9 can be finalized.	

52	Section 7.8.4, pg. 7-49, line 29.	There appears to be missing text.	Please add the word "habitat" after "aquatic" in this line.	
53	Section 8.3, pg. 8-2	Section 8.3 discusses the primary contaminant migration pathways for Load Line 9. DDAGW concurs with this assessment.	No additional response is necessary.	
54	Section 9.0 pg. 9-1	Impacted soils in the area of surface sample LL9SS-011-0001-SO report detections of copper (1,240 mg/kg), lead (1,330 mg/kg), and mercury (822 mg/kg). Removal of the contaminated surface soils is recommended prior to further delineation activities at this area.	Please provide a discussion concerning this issue.	
55	Section 9.0, pg. 9-1, line 16-18	The text states that "additional sampling may be necessary to fully identify lateral and vertical extent of contamination at LL-9 for metals and propellants." This statement does not include explosives. RDX was detected in subsurface soils at location LL09SB-053. Further detections of propellants and explosives may have occurred if	Please change "may be necessary" to "will be necessary" and include "explosives" in this sentence. Please further elaborate on how only analyzing 10% of samples collected for propellants and explosives has provided little confidence to whether full extent of contamination has been determined at LL-9.	

		more than 10% of samples collected were analyzed for explosives and propellants. This represents a huge data gap.		
56	Appendices – general	For the submission of the final Phase I RI report, do NOT re-submit the appendices, unless required by the comment	Only submit replacement cover sheets and spines.	
57	Appendices – general	For any future field efforts, please ensure that all field personnel follow the proper protocol of making changes – i.e., one line strike-through and initial.	No changes required for this effort.	
58	Appendices – general	For future efforts, please ensure that Region 9 vs. Region IX is used – ex. App. F, App. P, and App. R, etc.	No changes required for this effort.	
59	Appendices – general	For future efforts, please ensure that COCs are completely filled out.	No changes required for this effort.	
60	Appendix K	The total well volume calculation from MW-004 is not complete.	Please provide appropriate information related to this calculation.	
61	Appendix K	No headspace readings were recorded on the HTRW drilling logs for MW-001 through MW-007	Please provide the readings and a discussion concerning this omission.	

62	Appendix U Data Validation	<p>The following discrepancies were noted during a review of Appendix U – Data Validation:</p> <ul style="list-style-type: none"> a) A Laboratory Quality Control Summary Report was not included in Appendix P. b) Various Data Validation Reports indicate that matrix spike/matrix spike duplicate (MS/MSD) analysis was not performed during several analytical runs. For example, the data validation report, dated March 19, 2—4 (#223182, 223183), indicates that MS/MSD was run only during Method 8330 propellants. This does not correspond with Section 3.2.2, which indicates the MS/MSD samples, "... provided information about the effect of the sample 	<ul style="list-style-type: none"> a) Please provide a copy of the laboratory Quality Control Summary Report for each sampling event for Ohio EPA review. b) Please provide an explanation as to the omission of MS/MSD testing with all analytical methods, except propellants, during these sampling events. Please revise the text in Section 3.2.2 and Appendix U to include this explanation and for consistency. 	
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		matrix on the measurement methodology." This is not in accordance with Section 4.5 (pg. 4-5) of the 2003 Sampling and Analysis Plan (SAP) for Load Line 9		
63	Table 2.1 (Appendix V) for LL-9 report	The toxicological screening table provided for LL-9 is actually the table for LL-6.	The correct table needs to be included, so the justification for removing site related chemicals from the HHRA is supported.	



State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 9, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
~~LOAD LINE 9~~ FINAL RI REPORT

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO) and Southwest District Office (SWDO), Division of Emergency and Remedial Response (DERR), have received and reviewed the document entitled: "Final Report for the Phase I Remedial Investigation at Load Line 9 (RVAAP-42)." This document, dated August 2007 and received at Ohio EPA on August 21, 2007, was prepared for the U.S. Army Joint Munitions Command (JMC) by MKM Engineers, under contract number DAAA09-98-G-0001/DAAA09-02-C-0070.

This document was reviewed and compared to the draft version, dated May 2007, and Ohio EPA comments, dated July 31, 2007.

Please note the following for the Phase II activities that will need to be conducted at this Load Line. It is Ohio EPA's expectation that these changes will be incorporated into any future activities at this Load Line:

1. Final documents do not contain line numbers.
2. Please change dates and revision numbers on all updated figures.

Please revise Figure 1-2 and resubmit. It contains gross errors (i.e., Paris Wondham Road should be changed to Paris-Windham Road and placed at the right location in the figure).

Ohio EPA considers this document final and approved upon receipt of the corrected figure.

MR. IRV VENGER, ACTING FACILITY MANAGER
RAVENNA ARMY AMMUNITION PLANT
OCTOBER 9, 2007
PAGE 2

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1148.

Sincerely,



Todd R. Fisher
Project Coordinator
Division of Emergency and Remedial Response

TRF/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Connie McCambridge, Ohio EPA, NEDO, DDAGW
Eileen Mohr, Ohio EPA, NEDO, DERR
Mark Krivansky, AEC
Jeff Gollon, TACOM
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Glen Beckham, USACE Louisville
Angela Schmidt, USACE Louisville
Srini Neralla, MKM, Houston
Kate Anthony, Sacramento

ec: Mike Eberle, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

May 08, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
LOAD LINES 6 AND 9 EXTENSION

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

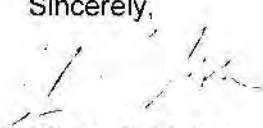
Dear Mr. Venger:

On 08 May 2007, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR), received a signed letter via fax requesting an extension for the submission of the Load Line 6 and Load Line 9 Remedial Investigation (RI) reports. Specifically, your letter indicates that the draft reports for both Load Lines will be submitted no later than 5 June 2007, and that the final RI reports will be submitted no later than 23 August 2007. Additionally, your correspondence indicates that additional extensions will not be requested by the Army.

The requested extensions are granted. In the event that the Army does request an additional extension for any of the Load Line 6 or 9 draft or final reports, please be advised that it will not be granted by Ohio EPA. The new milestone date for the final Load Line 6 and Load Line 9 RI reports is now 23 August 2007. Failure to submit the final RI reports by 23 August 2007 will result in a Notice of Violation (NOV) being sent to your attention.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,


Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Katie Elgin, OHARNG RTLS
John Jent, USACE Louisville
Tom Lederle, BRAC
Stan Levenger, MKM

MAJ Ed Meade, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
Elyse Meade, TACOM
Srini Neralla, MKM

ec: Todd Fisher, Ohio EPA, NEDO, DERR
Mike Eberle, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 11, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL CBP ACTION MEMORANDUM
(RVAAP-49) APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Action Memorandum for **Central Burn Pits (CBP)** (RVAAP-49), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated June 2007 and received at Ohio EPA on June 22, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes have been made to this document and considers it to be final and approved, providing there are no additional comments from the Army or Ohio Army National Guard.

If you have any questions regarding this correspondence, please do not hesitate to contact me at (330) 963-1148

Sincerely,

Todd R. Fisher, Project Coordinator
Division of Emergency and Remedial Response
Todd.Fisher@epa.state.oh.us

TRF/kss

cc: Eileen Mohr, Ohio EPA, NEDO, DERR
Kevin Jago, SAIC, Oak Ridge
Jed Thomas, SAIC, Twinsburg
Glen Beckham, USACE, Louisville
Mark Krivansky, AEC

MAJ Ed Meade, RTLS
Katie Elgin, RTLS
John Jent, USACE, Louisville
Angela Schmidt, USACE, Louisville
Bonnie Buthker, Ohio EPA, SWDO, DERR

ec: Mike Eberle, Ohio EPA, NEDO, DERR





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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

August 7, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
CBP DRAFT RA WP COMMENTS

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: "Draft Removal Action Work Plan for ~~Central Burn Pits (RVAAP-49)~~, Ravenna Army Ammunition Plant." This document, dated June 2007 and received on June 25, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, Delivery Order W912QR-05-F-0033.

Enclosed with this letter are comments from Ohio EPA. If you have any questions concerning this correspondence, or the enclosed comments, please do not hesitate to contact me at (330) 963-1148.

Sincerely,

Todd R. Fisher
Project Coordinator
Division of Emergency and Remedial Response

TRF/kss

enclosure

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Eileen Mohr, Ohio EPA, NEDO, DERR
Glen Beckham, USACE Louisville
Tom Chanda, USACE Louisville
Jed Thomas, SAIC, Twinsburg

Mark Krivansky, AEC
Rick Hockett, USACE Louisville
Angela Schmidt, USACE Louisville
John Jent, USACE Louisville
Kevin Jago, SAIC, Oak Ridge

ec: Mike Eberle, Ohio EPA, NEDO, DERR

Draft Removal Action Work Plan for Central Burn Pits (CBP) (RVAAP-49), Ravenna Army Ammunition Plant
Reviewed by: Todd R. Fisher, Ohio EPA, NEDO, DERR
Date: August 7, 2007

Cmt. No.	Page # Line #	Comment	Recommendation	Response
1	Section 1.2, pg 1-1, line 34	The text states that "verification sampling will be conducted to ensure all contaminated material exceeding removal cleanup goals have been removed." Even though verification sampling and confirmation sampling are the same, use of "confirmation sampling" may be more familiar to the reader and may be utilized more often in current installation documents.	Change "verification sampling" to "confirmation sampling."	
2	Section 1.4.1, pg 1-3, line 9	The text states that "elevations vary from 292 to 298 meters (960 to 980 ft)." There is no reference to sea level.	Please make sure to include "above mean sea level (amsl)" or "below ground surface bgs)", etc., where appropriate throughout the text.	
3	Figures 1-1, 1-2, and 1-3	Figures 1-1, 1-2, and 1-3 should fall immediately after the first instance they are used in the text.	These figures fall at the end of the section and should be moved up to page 1-3.	
4	Section 2.0, General	There is no mention of SAIC's involvement in the RVAAP bi-weekly schedule calls.	Please add a section (i.e., Section 2.4 Bi-weekly Schedule Calls) to the document which describes SAIC's involvement with these calls.	
5	Section 5.2, pg. 5-1	This section's emphasis is on propellants only. What about other MEC that may be encountered? Will the MEC	Please make the appropriate changes to the text.	

Draft Removal Action Work Plan for Central Burn Pits (CBP) (RVAAP-49), Ravenna Army Ammunition Plant
Reviewed by: Todd R. Fisher, Ohio EPA, NEDO, DERR
Date: August 7, 2007

		Avoidance Subcontractor be looking for other forms of MEC (UXO, explosives, etc.)? If so, then why have they been excluded?		
6	Section 5.3.2, pg. 5-3, line 12	Wrong tense of verb used in sentence.	Please change "operate" to "operated."	
7	Section 5.3.2, pg. 5-3, lines 19 through 24	The text describes how trucks will be maintained during load out of soils. There is no mention of steam-cleaning or high pressure washing to remove soil from trucks and equipment. Will this be done?	Please provide clarification.	
8	Section 6.1.1, pg. 6-1, lines 31-39	The text describes how a discrete soil sample will be collected from the middle of Pile M footprint for the TCLP Volatile Organic Compounds (VOC). The text is unclear as to the purpose of this VOC sample.	Please provide clarification in your response and the purpose of this sample in the text.	
9	Section 11, pg. 11-1	There is no reference to Ohio's Rainwater and Land Development Guidance document.	Please add the following reference: Ohio Department of Natural Resources (ODNR), Division of Soil and Water Conservation 2006. <i>Rainwater and Land Development – Ohio's Standards for Stormwater Management, Land Development, and Urban Stream Protection</i> , 3 rd ed.	

Draft Removal Action Work Plan for Central Burn Pits (CBP) (RVAAP-49), Ravenna Army Ammunition Plant
Reviewed by: Todd R. Fisher, Ohio EPA, NEDO, DERR
Date: August 7, 2007

10	Attachment A, Appendix B, Figure B-1.	Route Map to Pre-Notified medical Facility provide little detail on how to get to the nearest hospital.	Please provide detailed map route, and use smaller scale. Hospital is located on S.R. 44 (Chestnut St.). Map does not indicate this.	
11	Design Number C-1	Design provides no scale for Location Map and Vicinity Map.	Please provide a scale for both maps, or add "Not To Scale" below each map.	
12	Design Number C-3	Patterns used for "Truck Turn Around" and "Rock Construction Entrance" are too similar, and it is hard to differentiate between them.	Change one of the patterns, so that it is easier to differentiate between "Truck Turn Around" and "Rock Construction Entrance."	
13	Design Number C-3	What is the dashed line between just north of Pile M and crossing the service road? Is it a culvert?	If the dashed line represents a culvert, it must be added to the legend.	
14	Design Number C-5	In Inset A, what do the "circles with two horizontal lines at opposite ends" mean?	Please identify, and include it in the legend.	
15	Design Number C-5	Many of the buildings depicted on this design do not exist anymore.	Change legend to read, "Current and/or Historical Buildings and Structures."	
16	Design Number C-5	Arrows representing truck traffic directions are not depicted in legend.	Please add arrow to legend.	



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 14, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL CBP RA WORK PLAN
(RVAAP-49) APPROVAL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: Final, Removal Action Work Plan for Central Burn Pits (CBP) (RVAAP-49), Ravenna Army Ammunition Plant, Ravenna, Ohio. This document, dated August 2007 and received at Ohio EPA on August 31, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by Science Applications International Corporation (SAIC), under contract number GS-10F-0076J, delivery order number W912QR-05-F-033.

This document was reviewed by personnel from Ohio EPA's Division of Emergency and Remedial Response (DERR). Ohio EPA has determined that all required text changes and page replacements have been made to this document and considers it to be final and approved, providing there are no additional comments from the Army or Ohio Army National Guard (RTLS).

If you have any questions regarding this correspondence, please do not hesitate to contact me at (330) 963-1148, or by e-mail at Todd.Fisher@epa.state.oh.us.

Sincerely,

Todd R. Fisher
Project Coordinator
Division of Emergency and Remedial Response

TRF/ams

cc: Eileen Mohr, Ohio EPA, NEDO, DERR
Kevin Jago, SAIC, Oak Ridge
Jed Thomas, SAIC, Twinsburg
Glen Beckham, USACE, Louisville
Mark Krivansky, AEC

MAJ Ed Meade, RTLS
Katie Elgin, RTLS
John Jent, USACE, Louisville
Angela Schmidt, USACE, Louisville
Bonnie Buthker, Ohio EPA, SWDO, DERR

ec: Mike Eberle, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

June 7, 2007

RE: RAVENNA ARMY AMMUNITION PLANT,
PROTAGE/TRUMBULL COUNTIES,
DRAFT, FWGWMP, JANUARY 2007
SAMPLING EVENT

Mr. Irv Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Draft, Facility-Wide Groundwater Monitoring Program (FWGWMP), Report on the January 2007 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, OH" document. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial response (DERR), on April 27, 2007. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by SpecPro, Inc., under contract no. GS-10F-0448P.

Enclosed with this correspondence, please find Ohio EPA's comments on the document. The Director's Final Findings and Orders require that the responses to comments (RTCs) be received within 15 days of the Army's receipt of Ohio EPA's correspondence, and that the revised document be submitted within 30 days of the Army's receipt of Agency correspondence. Please contact other reviewers of the document in order to coordinate comments, responses, and revised documents.

The enclosed comments must be adequately addressed before the document can be approved. If you have any questions, please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch, Project Coordinator
Division of Emergency and Remedial Response

VD/kss

Enclosures

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Eileen Mohr, Ohio EPA, NEDO, DERR
Al Brillinger, SpecPro
Maj. Ed Meade, OHARNG RTLS
Rick Hockett, USACE Louisville
Conni McCambridge, Ohio EPA, NEDO, DERR

John Jent, USACE Louisville
Chantelle Carroll, SpecPro
Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
John Miller, EQM

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR

**PRELIMINARY DRAFT – FACILITY-WIDE GROUND WATER MONITORING REPORT
JANUARY 2007 SAMPLING EVENT
OHIO EPA COMMENTS
REVIEWER: VICKI DEPPISCH**

Cmt. #	Page #, etc.	Comment	Recommendation	Response
1	Table 3-2	"NS" not in qualifier.	Please put in qualifier definition and all other Tables with "NS."	
2	Table 3-2 Explosive and Propellant	Ohio noted that some of the constituents had different reporting limits (RLs); some above the PQLs listed in Table 3.7 of the Facility-Wide S&A Plan. Meeting the PQLs as stated in the S&A Plan has previously been discussed and must be met.	Please discuss and list (1) which constituents were above the PQLs in the S&A Plan, (2) why they were above the PQL, (3) why the same constituent has many different RLs (even if they were below the PQL), (4) what can be done to correct the data in this report, and (5) what can be done to permanently correct this in the future.	
3	Lab. narrative reports	Ohio EPA could not locate the lab narrative reports.	Please identify the location in the document. If not included, please include in this report and all future data reports.	
4	Table 3-3, inorganics and Appendix C	The Table qualifiers or Appendix C (Data Verification) do not include a detailed explanation of why some constituents have been given a "J" qualifier and others a "UJ."	Please discuss in detail and add to the qualifiers in Table 3-3, Appendix C, and all other appropriate Tables.	
5	Table 3-3, inorganics and Appendices B and C	Some constituents listed in the table had "J" values (i.e., BKGmw-005 potassium 1300J, manganese 384J) above the S&A Plan PQLs and other lower reported RLs.	(1) Correct Table 3-3, verifying ALL results and change qualifier definitions, (2) for clarity, continuity, and reduce possible error, change laboratory	

		<p>According to the qualifiers: "J" = estimated result. Result less than the Reporting Limit. Cross checking the Appendix B, laboratory data sheets, the qualifier for inorganics states the reverse: "J" = method blank contamination.</p> <p>This has been discussed before. Inorganics qualifier "J" = method blank and "B" = estimated result. Organics qualifiers are the reverse: "B" = blank contamination, "J" = estimated value. Reporting the opposite qualifiers is confusing and open for error, as demonstrated in Table 3-3. It appears the qualifiers in Table 3-3 for inorganic and organic have been switched.</p>	<p>qualifiers for inorganics to the same meaning as organics: "J" = estimated, "B" = blank contamination (3) change/revise inorganic comprehensive database to reflect the uniform qualifiers.</p>	
6	Tables	<p>In addition, Ohio EPA is requesting corresponding MDLs and RLs for all constituents, in all tables.</p>	<p>Please add.</p>	

**PRELIMINARY DRAFT - FACILITY WIDE GROUND WATER MONITORING REPORT
FOR THE JANUARY 2007 SAMPLING EVENT
OHIO EPA - DDAGW COMMENTS - REVIEWER: C. McCambridge**

Cmt. No.	Page # Line #	Comment	Recommendation	Response
1	Section 3.2; Tables 3-2, 3-3, 3-5, 3-6, and 3-7	<p>Several issues were noted during the review of background sampling results.</p> <p>a) One chemical of potential concern (COPCs), nitrocellulose, was detected in BKGmw-006 and BKGmw-020. Nitrobenzene was also detected in BKGmw-020. Benzene, Bis(2-ethylhexyl)phthalate and di-n-octyl phthalate also were detected in several background samples. While Tables 3-2 and 3-5 listed these results as "J" (estimated) values, there is a concern that these background wells may have been impacted by the facility.</p> <p>b) Arsenic, barium, iron, manganese were reported above their respective maximum contaminant levels (MCLs) in several background wells (i.e., BKGmw-012, BKGmw-013, BKGmw-017). It is unclear how this concern will be addressed.</p>	<p>These detections of nitrocellulose, bis(2-ethylhexyl)phthalate, and di-n-octyl phthalate, and exceedances of MCLs for inorganics raise questions as to the use of the "background data" obtained from background well locations. The issue of these observed concentrations has been noted in previous data reviews.</p> <p>It is unclear whether these background wells have been impacted by explosives from previous facility activities and are currently capable of providing a representative ground water sample unaffected by the facility.</p> <p>Please provide discussions to address these two issues (a and b) concerning background wells. The discussion should include, but not be limited to, those activities which will be carried out to provide more definitive results in the future.</p>	

2	Appendix C; Pgs. 3, 7, 12, 16, 21	<p>Data Verification/Validation Report: The following inconsistencies were noted during the review:</p> <p>a) The Data Verification/Validation Report indicates that the electronic data deliverable (EDD) has a total of 813 errors from the five reports presented in Appendix C. It is unclear how these errors affected the data validation of the January 2007 sampling results.</p> <p>b) Iron, manganese, potassium, zinc, and nitrocellulose were all detected in the method blank. It is unclear how this occurred.</p> <p>c) The report indicates that several explosives and nitroguanidine samples were filtered prior to analysis due to high solid content (pgs. 5, 10, 14, 18, 24). It is unclear whether this procedure has been previously agreed upon between the contractor and Ohio EPA.</p>	<p>a) Please provide an explanation concerning the EDD errors and how these errors affected the data validation of the January 2007 sampling results. Please also indicate what precautions will be taken to prevent the recurrence of this problem in the future.</p> <p>b) Please explain why these parameters were detected in the method blank and indicate what precautions will be taken in the future to avoid recurrence of this problem.</p> <p>c) Please provide a discussion concerning this issue.</p>	
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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 12, 2007

CERTIFIED MAIL

Mr. Irv Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Re: Ravenna Army Ammunition Plant, Portage/Trumbull Counties, Draft Facility Wide Ground Water Monitoring Program Annual Report, 2006, SpecPro Response, Dated May 29, 2007, to Ohio EPA Comment Letter, Dated April 18, 2007, to SpecPro Response, Dated March 20, 2007, to Ohio EPA Comment Letter, Dated January 16, 2007

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "SpecPro Response to Ohio EPA Comment Letter (dated April 18, 2007), Draft Facility Wide Ground Water Monitoring Program Annual Report for 2006, Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio" document. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR), on May 29, 2007; however, the received date was changed to June 15, 2007, which reflects the effective date of the required updated Cooperative Agreement (CA). The document was prepared for the U.S. Army Corps of Engineers (USACE) - Louisville District, by SpecPro, Inc., under contract no. GS-10F-0048P. This document was reviewed by Ohio EPA personnel in NEDO's DERR and NEDO's Division of Drinking and Ground Waters (DDAGW). Most items in Ohio EPA's letter, dated January 16, 2007, were adequately addressed; however, some unresolved issues remained and were discussed in a conference call on May 10, 2007. SpecPro noted that OHARNG did not participate in the call, as all their issues were adequately addressed.

This document, covering four quarters, summarizes the October 2005 and the March, May, and July 2006 sampling events. The Ravenna Team, including Ohio EPA, met in July 2006 to discuss many ground water related issues at RVAAP. It was decided that the quarterly sampling events for inclusion in the annual report would be changed to reflect the last quarter from the previous year and the first three quarters of the current year. Due to this change, the October 2005 sampling event was included in both of the Facility Wide Ground Water Monitoring Program (FWGWMP) Annual Reports for 2005 and 2006.

Since the four quarters of sampling were completed prior to the July 2006 ground water meeting, some of the comments from the review of the FWGWMP 2005 Annual Report and the "programmatic issues" from the review of the May 2006 sampling event are still applicable to this document. These were stated in the January 16, 2007 Ohio EPA letter to Mr. Irv Venger, RVAAP.



The Draft 2006 Annual Report is approved. The Final 2006 Annual Report revisions have been received by Ohio EPA.

The following is a detailed list of the comments that were discussed in the SpecPro May 29, 2007 responses. All comments were adequately addressed.

Reviewer: Vicki Deppisch - Outstanding Programmatic Issues

Comment 1B:
Adequately addressed.

Comment 1C:
Adequately addressed.

Comment 1D:
Adequately addressed. Ohio EPA was advised that the Endosulfan I and II lower reporting limits of the QAPP RL of 0.022 ug/L was implemented by the laboratory for the October 2006 sampling event.

Comment 1F:
Adequately addressed.

Reviewer: Vicki Deppisch - 2005 Annual Report Outstanding Items

Comment 2:
Adequately addressed.

Reviewer: Vicki Deppisch - 2006 Annual Report Comments

Comment 5:
Adequately addressed.

Comment 7A:
Adequately addressed.

Comment 7C:
Adequately addressed.

Comment 7D:
Adequately addressed.

Comment 7E:
Adequately addressed.

Comment 7F:
Adequately addressed.

IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
JULY 12, 2007
PAGE 3

Comment 8:
Adequately addressed.

Reviewer: Conni McCambridge - 2006 Annual Report

Comment 4:
Adequately addressed.

Comment 5:
Adequately addressed.

Comment 6:
Adequately addressed.


Comment 7:
Adequately addressed.

Investigative Derived Waste (IDW) Report

Please note that the approved IDW Report will be included in the 2006 Final Annual Report as Appendix E.

If you have any questions, please call me at (330) 963-1207.

Sincerely,


Vicki Deppisch
Project Coordinator
Division of Emergency and Remedial Response

VD/kss

cc: John Miller, EQM
Eileen Mohr, Ohio EPA, NEDO, DERR
Maj. Ed Meade, OHARNG RTLS
Glen Beckham, USACE Louisville
Rick Hockett, USACE Louisville
Bonnie Buthker, Ohio EPA, SWDO, OFFO
Connie McCambridge, Ohio EPA, NEDO, DDAGW

Chantelle Carroll, SpecPro
John Jent, USACE Louisville
Katie Elgin, OHARNG RTLS
Mark Krivansky, AEC
Al Brillinger, SpecPro

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

~~July 19, 2007~~

RE: RAVENNA ARMY AMMUNITION PLANT,
PORTAGE/TRUMBULL COUNTIES,
DRAFT, ~~FWGWMP~~, SPECPRO
RESPONSE TO OHIO EPA COMMENT
LETTER DATED JUNE 7, 2007, JANUARY
2007 SAMPLING EVENT

Mr. Irv Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Comment Response for Ohio EPA Comments, Draft, Facility-Wide Groundwater Monitoring Program (FWGWMP) Report on the January 2007 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, OH" document. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial response (DERR), on June 22, 2007, and is dated June 21, 2007. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by SpecPro, Inc., under contract no. GS-10F-0448P. SpecPro noted that OHARNG, RVAAP, USACE, and USAEC had no comments on the draft document.

All comments have been adequately addressed and the document is approved. The Final January 2007 Sampling Event revisions have been received by Ohio EPA. If you have any questions please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch, Project Coordinator
Division of Emergency and Remedial Response

VD/kss

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Eileen Mohr, Ohio EPA, NEDO, DERR
Al Brillinger, SpecPro
Maj. Ed Meade, OHARNG RTLS
Rick Hockett, USACE Louisville
Conni McCambridge, Ohio EPA, NEDO, DERR

John Jent, USACE Louisville
Chantelle Carroll, SpecPro
Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
John Miller, EQM

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR





State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

August 6, 2007

RE: RAVENNA ARMY AMMUNITION PLANT,
PROTAGE/TRUMBULL COUNTIES,
PERCHLORATE ANALYSIS ADDENDUM,
DATED AUGUST 1, 2007

Mr. Irv Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Perchlorate Analysis Addendum" for the ~~Facility Wide Groundwater Monitoring Program~~ at the Ravenna Army Ammunition Plant, Ravenna, Ohio. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial response (DERR) on August 2, 2007. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management, Inc., under contract no. W912QR-04-D-0036. The addendum states the perchlorate analysis is scheduled to begin for the October 2007 monitoring event and outlines the sampling and analysis protocol.

Ohio EPA concurs with the perchlorate addendum. Please forward a copy of the addendum to all other stakeholders, to ensure that their comments will be incorporated. If you have any questions, please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch
Project Coordinator
Division of Emergency and Remedial Response

VD/kss

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Eileen Mohr, Ohio EPA, NEDO, DERR
Katie Elgin, OHARNG RTLS
Maj. Ed Meade, OHARNG RTLS
Rick Hockett, USACE Louisville

John Jent, USACE Louisville
John Miller, EQM
Mark Krivansky, AEC
Glen Beckham, USACE Louisville

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR





State of Ohio Environmental Protection Agency

Northeast District Office

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www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

~~August 6, 2007~~

RE: RAVENNA ARMY AMMUNITION PLANT,
PROTAGE/TRUMBULL COUNTIES,
DRAFT, INVESTIGATION DERIVED
WASTE AND DISPOSAL PLAN,
~~FWGWMP~~, APRIL 2007 SAMPLING
EVENT REPORT

Mr. Irv Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Investigation-Derived Waste Characterization and Disposal Plan (IDW) for the Facility-Wide Groundwater Monitoring Program, April 2007 Sampling Event at the Ravenna Army Ammunition Plant, Ravenna, OH" report. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) on July 2, 2007, and is dated June 2007. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management, Inc., under contract no. W912QR-04-D-0036.

The report is approved and Ohio EPA concurs that the IDW from the April 2007 Sampling Event may be disposed of as a non-hazardous waste.

If you have any questions, please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch, Project Coordinator
Division of Emergency and Remedial Response

VD/kss

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Eileen Mohr, Ohio EPA, NEDO, DERR
Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC

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Rick Hockett, USACE Louisville

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Todd Fisher, Ohio EPA, NEDO, DERR



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

August 30, 2007

RE: RAVENNA ARMY AMMUNITION PLANT,
PORTAGE/TRUMBULL COUNTIES,
DRAFT, **FWGWMP**, APRIL 2007 SAMPLING
EVENT REPORT

Mr. Irv Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Draft, Facility-Wide Groundwater Monitoring Program (FWGWMP), Report on the April 2007 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, OH" document. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial response (DERR), on July 17, 2007 and is dated July 2007. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management, Inc. (EQM) under contract no. W912QR-04-D-0036. This document was reviewed by Ohio EPA personnel in NEDO's DERR and NEDO's Division of Drinking and Ground Waters (DDAGW).

Enclosed with this correspondence, please find Ohio EPA's comments on the document. The Director's Final Findings and Orders require that the responses to comments (RTCs) be received within 15 days of the Army's receipt of Ohio EPA correspondence, and that the revised document be submitted within 30 days of the Army's receipt of Agency correspondence. Please contact other reviewers of the document in order to coordinate comments, responses, and revised documents.

The enclosed comments must be adequately addressed before the document can be approved. If you have any questions, please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch, Project Coordinator
Division of Emergency and Remedial Response

VD/kss

enclosures

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Eileen Mohr, Ohio EPA, NEDO, DERR
Maj. Ed Meade, OHARNG RTLS
Rick Hockett, USACE Louisville
Conni McCambridge, Ohio EPA, NEDO, DERR

John Jent, USACE Louisville
Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
John Miller, EQM

ec: Mike Eberle, Ohio EPA, NEDO, DERR

Todd Fisher, Ohio EPA, NEDO, DERR

**RAVENNA ARMY AMMUNITION PLANT, FWGWMP
DRAFT, APRIL 2007 SAMPLING EVENT REPORT
REVIEWER: VICKI DEPPISCH**

Cmt. #	Section #, Page #, Line #, Table #	Comment	Recommendation	Response
1	Table 3-2, Table 3-3	All constituents that are analyzed must meet the RLs that are listed in the FWGWMP S&A Plan. It appears 3-Nitrotoluene and potassium did not.	Please verify that all RLs for all constituents, as specified in the S&A Plan, are achievable with the lab. If above the RL, please change the RLs for 3-Nitrotoluene and potassium.	
2	Tables, Appendix B	Data for various constituents were rejected.	Please state what is proposed about the rejected data and what has been done to ensure this will not happen again.	
3	General	The FWGWMP lists RLs for SVOCs (Table 3.4) and PAHs (Table 3.6). The PAHs are included in the SVOCs; however, the PAH method 8310 has lower RLs that may be lower and closer to the Region 9 PRGs.	Please discuss selection of SVOCs method over PAH method.	
4	Appendix B, Data Verification Summary and pg. 13	All acronyms (or abbreviations) used in the Data Verification Summary are not defined on page 13.	Please define all acronyms and/or abbreviations.	
5	General	Were there any lab contaminants identified during this sampling event?	Please discuss.	

6	General	Ohio EPA could not locate the laboratory narrative reports. Were these included with the report?	Please provide location of these reports or forward copies.	
7	Appendix B	Appendix B, Data Review checklists, states repeatedly that "10 Coolers were received between 2.1 and 3.5 degrees C. Cooler K110 was received at 6.5 degrees C and without ice." On page 1, Appendix B, Data Verification Summary, bottom of page, it states, "Nine of the coolers were received within acceptable criteria of 0-6 degrees C. Cooler K110 was received at 6.5 degrees C." Which temperatures are correct? Also, does the lab have a temperature that is unacceptable when received?	Please verify this discrepancy and provide the temperature that is unacceptable by the lab.	
8.	Metals, Table 3-3	Regarding the data qualifier B	Please verify the definition and data qualifier B assigned to all inorganic analyses.	

Draft Facility-Wide Groundwater Monitoring Program April 2007 Sampling Event Report
OHIO EPA-DDAGW Comments - Reviewer: C. McCambridge

Cmt. No.	Section #, Page #, Line #, Table #	Comment	Recommendation	Response
1	Section 2.2, Page 6, Line 31 and Section 2.3, Page 6, Line 4	<p>Section 2.2 text indicates that "...samples were...stored in iced coolers for shipment..."</p> <p>Section 2.3 text indicates that "...All samples were... delivered to the laboratory in iced coolers..."</p> <p>However, laboratory reports indicate that one cooler (Cooler K110) contained no ice and was received at a temperature of 6.5°C (Appendix B, pg 1 of 23). The samples contained in this cooler were analyzed. No record of a technical change order was included in the report.</p>	Provide clarification as to whether the samples contained in Cooler K110 are truly representative of ground water conditions. Please provide a discussion concerning what additional procedures will be implemented to ensure that all sample coolers will be received at the laboratory at 4°C (± 2°C). A record of the technical change order should be included in the report.	
2	Section 2.3, Page 8, Line 10	The text indicates that a transcription error on the GPL chain-of-custody was noted. The error involved a split sample incorrectly identified as being from well RQLmw-007. No record of a technical change order was included in the report.	Please provide a discussion concerning what additional procedures will be implemented to insure that all samples will be correctly identified on laboratory chain-of-custodies. A record of the technical change order should be included in the report.	
3	Section 2.4, Page 8, Line 25 and Section 3.3, Page 58, Line 11	<p>Section 2.4 text indicates: "data from STL was verified..."</p> <p>Section 3.3 text indicates: "...the data validator verifies all data received from STL..."</p> <p>It is unclear whether data from the quality assurance (QA) samples analyzed at GPL were also verified.</p>	Provide clarification as to whether data from GPL was also verified.	

4	Section 3.1, Table 3-1, Page 10, Line 11	Table 3-1 indicates that well CBPmw-006 was measured for ground water elevation and sampled. This well was replaced in the FWGWMP (May 2005) with well CBPmw-005, due to the questionable integrity of the CBPmw-006. It is unclear why CBPmw-006 was measured and sampled during the April 2007 sampling event.	Please provide a discussion concerning this change in the FSGWMP well sampling program.	
5	Section 3.2, Tables 3-2, 3-3, 3-5, 3-6, and 3-7	<p>Several issues were noted during the review of background sampling results.</p> <p>a) Several explosives (2,6-Dinitrotoluene, 2-Amino-4,6-dinitrotoluene, 2-nitrotoluene, HMX, and PETN) were detected in various background samples. While Table 3-2 listed some of these results as <i>AJQ</i> (estimated) values, there is a concern that these background wells may have been impacted by the facility.</p> <p>b) Arsenic, iron, and manganese, were reported above their respective maximum contaminant levels (MCLs) in several background wells (i.e., BKGmw-012, BKGmw-013, BKGmw-017, etc.). It is unclear how this concern will be addressed.</p>	<p>These detections of explosives, along with exceedances of MCLs for inorganics, continue to raise questions on the integrity of the data obtained from background well locations. The issue of observed concentrations has been noted in previous data reviews.</p> <p>It is unclear whether these background wells have been impacted by explosives from previous facility activities. It is also unclear whether these background wells are currently capable of providing a representative ground water sample unaffected by the facility.</p> <p>Please address these four issues concerning background wells. The discussion should include, but not be limited to, those activities which will be carried out to provide more definitive results in the future and how these possible laboratory contaminants will be minimized.</p>	

6	Section 3.2, Tables 3-2, 3-3, 3-5, 3-6, and 3-7	Tables 3-2, 3-3, 3-5, 3-6, and 3-7 contain "rejected data" for various parameters (i.e., acetone, bromoform, 2-nitrotoluene, etc.) in the sampled wells. This issue of "rejected data" was not discussed in the submittal.	Please provide a discussion concerning the effect that these rejected results have on data interpretation and/or conclusions. Also, provide a discussion concerning whether the condition that caused this data issue has been resolved and adequate steps have been taken to prevent the recurrence of the same problem in future sampling events.	
7	Section 3.3, Page 58, Line 22	<p>Several issues were noted during the review of background sampling results.</p> <p>a) The text does not clarify the qualifier terms (B, J, E, U, UJ, R).</p> <p>b) No laboratory narrative/discussion was included concerning the analytical results for the various Quality Assurance (QA)/Quality Control (QC) samples submitted during the April 2007 event.</p> <p>c) Table 3-8 indicates that <90% percent completeness was reported for Methods 8260B (89.3%) and 9012A (84%). No further discussion was included in the report.</p>	<p>a) Please clarify these terms in the text.</p> <p>b) Please provide a discussion concerning the results of QA/QC samples, such as method blank, trip blank and equipment rinse.</p> <p>c) Please provide a discussion concerning the <90% percent completeness for Methods 8260B and 9012A.</p>	

8	Appendix A – Field Sampling Logs	Turbidity readings of > 10 NTUs were noted on the many field logs written prior to ground water sampling activities. These field logs did not include any reason to explain these increased turbidity values.	Please provide a discussion concerning the possible reasons for high turbidity readings in ground water samples from many monitoring wells. Also, provide a discussion concerning what procedure(s) will be implemented to reduce high turbidity in future ground water sampling events.	
9	Appendix B – Data Validation	A Laboratory Quality Control Summary Report was not included in Appendix B.	Please provide the Laboratory Quality Control Summary Report in the final report.	



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 24, 2007

RE: RAVENNA ARMY AMMUNITION PLANT,
PORTAGE/TRUMBULL COUNTIES,
DRAFT, INVESTIGATION DERIVED
WASTE AND DISPOSAL PLAN, FWGWMP,
JULY 2007 SAMPLING EVENT REPORT

Mr. Irv Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Investigation-Derived Waste Characterization and Disposal Plan (IDW), for the **Facility-Wide Groundwater Monitoring Program**, July 2007 Sampling Event at the Ravenna Army Ammunition Plant, Ravenna, OH" report. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial response (DERR), on September 17, 2007, and is dated September 2007. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management, Inc. (EQM) under contract no. W912QR-04-D-0036.

The report is approved and Ohio EPA concurs that the IDW from the July 2007 Sampling Event may be disposed of as a non-hazardous waste; however, Ohio EPA is requesting that EQM continue to follow through with the laboratory's "apparent switched sample extracts during or after the TCLP process," which gave erroneous results for metals and SVOCs. The laboratory states "the investigation as to what happened is still under way." When the investigation is completed, please advise Ohio EPA what happened and what steps have been taken to ensure this will not happen again.

If you have any questions, please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch, Project Coordinator
Division of Emergency and Remedial Response

VD/kss

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Eileen Mohr, Ohio EPA, NEDO, DERR
Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC

John Jent, USACE Louisville
John Miller, EQM
Maj. Ed Meade, OHARNG RTLS
Rick Hockett, USACE Louisville

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

November 30, 2007

RE: RAVENNA ARMY AMMUNITION PLANT,
PORTAGE/TRUMBULL COUNTIES,
DRAFT, **FWGWMP**, JULY 2007
SAMPLING EVENT REPORT

Mr. Mark Patterson
Installation Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL


Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Facility-Wide Ground Water Monitoring Program (FWGWMP) Draft July 2007 Sampling Event" document. The "Investigative Derived Waste and Characterization and Disposal Plan," (IDW) has been included in Appendix C in this document. The document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial response (DERR), on October 17, 2007. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management, Inc. (EQM), under contract no. W912QR-04-D-0036. This document was reviewed by Ohio EPA personnel in NEDO, DERR, and NEDO's Division of Drinking and Ground Waters (DDAGW).

The IDW plan, Appendix C, is approved. Enclosed are Ohio EPA's comments that need to be addressed before the entire document can be approved. The Director's Final Findings and Orders require that the responses to comments (RTCs) be received within fifteen (15) days of the Army's receipt of Ohio EPA correspondence, and that the revised document be submitted within thirty (30) days of the Army's receipt of Agency correspondence. Please contact other reviewers of the document in order to coordinate comments, responses, and revised documents.

If you have any questions, please call me at (330) 963-1207.

Sincerely,


Vicki Deppisch, Project Coordinator
Division of Emergency and Remedial Response

VD/kss

enclosure

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Eileen Mohr, Ohio EPA, DERR, NEDO
Maj. Ed Meade, OHARNG RTLS
Rick Hockett, USACE Louisville
Conni McCambridge, Ohio EPA, DERR, NEDO

John Jent, USACE Louisville
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Glen Beckham, USACE Louisville
Mark Krivansky, AEC
John Miller, EQM

ec: Mike Eberle, Ohio EPA, DERR, NEDO

Todd Fisher, Ohio EPA, DERR, NEDO





State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

December 7, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES,
"DRAFT PROPOSAL TO UPDATE THE
FWGWMP," DATED OCTOBER 22, 2007

Mr. Mark Patterson
Installation Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Draft Proposal to Update the Facility-Wide Ground Water Monitoring Program" document. The document was received at Ohio EPA, Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR), on October 26, 2007 and is dated October 22, 2007. The document was prepared by Rick Hockett, U.S. Army Corps of Engineers (USACE) – Louisville District. This document was reviewed by Ohio EPA personnel in NEDO, DERR, and NEDO's Division of Drinking and Ground Waters (DDAGW).

Ohio EPA has had several phone call discussions with Mr. Hockett regarding this document, which also included other FWGWMP issues. These items have been included in the comments. Enclosed are Ohio EPA's comments that need to be addressed. Ohio EPA realizes that many of the proposed changes are complicated and may require additional time and the involvement of other RVAAP personnel. Please contact other reviewers of the document in order to coordinate comments, responses, and revised documents.

If you have any questions, please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch,
Project Coordinator
Division of Emergency and Remedial Response

VD/kss

Enclosure

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Major Ed Meade, OHARNG RTLS
John Jent, USACE Louisville
Glen Beckham, USACE Louisville
John Miller, EQM
Conni McCambridge, Ohio EPA, DDAGW, NEDO

Eileen Mohr, Ohio EPA, DERR, NEDO
Rick Hockett, USACE Louisville
Katie Elgin, OHARNG RTLS
Mark Krivansky, AEC

ec: Mike Eberle, Ohio EPA, DERR, NEDO

Todd Fisher, Ohio EPA, DERR, NEDO



Ravenna Army Ammunition Plant
Draft Proposal to Update the Facility-Wide Ground Water Monitoring Program (FWGWMP)
Document Dated October 22, 2007
Reviewers: Conni McCambridge and Vicki Deppisch, Ohio EPA

Cmt. No.	Section #, Pg. #, Line #, Table #	Comment	Recommendations	Response
1	Section 1.0, Items 1-4	USACE has listed modifications presented at FWGWMP June 07 meeting.	Note: These modifications were acknowledged by Ohio EPA, not approved. Please add to the text.	
2	Section 5.0, pg 25	This section discusses the proposed locations for the installation of six deep bedrock wells adjacent to existing shallow wells (figures 19 and 20).	Ohio EPA concurs with the general locations of the proposed deep bedrock wells to be installed in 2008. Ohio EPA requests to be present when the exact location is selected.	
3	Table 4 & Section 6	The Table provides the sampling sequence. The text does not include enough detail to provide the rationale for the sampling sequence.	Please provide a detailed discussion on the well sampling sequence. Ohio EPA recommends LL 1-4 and LL-12 be ranked together and first.	
4	General	<p>USACE has indicated the background wells and the 22 other wells that are currently sampled, have been sampled 9-10 times under the FWGWMP and would like to discontinue sampling these wells and sample other wells.</p> <p>Background well integrity issues are still a concern.</p>	Ohio EPA concurs that these wells have a sufficient number of sampling events at the current time and new wells should be designated for sampling. Regarding the background wells: some constituents have been detected in the background wells which question the integrity of these wells as background. This has been discussed in previous comment letters. The integrity of the background wells must be resolved. Ohio EPA recommends summary tables be prepared for the background wells for discussion and a conference call scheduled in January 2008, to resolve this issue. As new data appears, previously sampled wells may have to be re-sampled.	

5	General	<p>The proposed new wells for sampling are not eligible under the FWGWMP, because they have not been sampled four times. The FWGWMP (which is under the F&Os) requires a well to be sampled four times before it is eligible for sampling. USACE requested to move these wells under the FWGWMP without the four quarters of sampling. The wells would be sampled under the FWGWMP for four consecutive quarters and then evaluated. All Non-detects would be recommended for no additional sampling.</p>	<p>Because the FWGWMP is a component of the F&Os, Ohio EPA recommends USACE discuss this with their legal personnel for a legal interpretation.</p> <p>Ohio EPA agrees that a minimum of four consecutive quarters of sampling under the FWGWMP with all non-detects will provide enough data to request no further sampling.</p>	
6	General Background Wells	<p>USACE has proposed to recalculate the background level using all quarters of sampling that have been obtained under the FWGWMP. The original background value was calculated from one sampling event in 1998.</p>	<p>Ohio EPA is willing to review the new calculation; however, some outliers (and perhaps other data) were discarded for the 1998 calculation. This will have to be researched, evaluated for the new calculation, and discussed. Also, justification will be required for any constituent that has decreased in value.</p> <p>In addition, Ohio EPA requests that USACE prepare lab data summary tables for all background wells to evaluate the integrity of the wells (see comment # 4).</p>	
7	General Long Term Monitoring (LTM)	<p>USACE has proposed to move LTM under the FWGWMP.</p>	<p>Ohio EPA recommends a legal opinion be obtained to evaluate if this can be done.</p>	
8	General	<p>During the data presentation at the FWGWMP June 2007 meeting, it was noted that some wells sampled earlier under the Phase I RIs had detects of some</p>	<p>Ohio EPA requests that USCE investigate this trend and prepare summary data tables.</p>	

		constituents and then later no detects for the same constituent when sampled under the FWGWMP.		
9	General	During the FWGWMP June 2007 meeting, the issue of DNT isomers was discussed.	Please investigate and evaluate, specific to RVAAP, and provide to Ohio EPA a discussion on possible presence or absence of these isomers based on all current technologies and technical information.	
10	General	EQM has reported water levels have dropped in some wells several feet during 2007. USACE suspects recharge levels.	Please have EQM monitor this during each sampling event and include a discussion in the annual report and, if appropriate, in the quarterly reports.	
11	General	USACE has indicated they would like to create a ROD for the FWGWMP and have indicated AEC has agreed to investigate this possibility.	Ohio EPA is open to this possibility.	



DEPARTMENT OF THE ARMY

RAVENNA ARMY AMMUNITION PLANT

8451 STATE ROUTE 5

RAVENNA, OHIO 44266-9297

REPLY TO
ATTENTION OF

29 November, 2007

To: Karl Raue, US Army Technical Center for Explosives Safety,
SJMAG-ESM

From: Mark Patterson, BRAC Environmental Coordinator

SUBJECT: Correction to the approved Explosive Safety Submission
(ESS) for excavated soils at Winklepeck Burning Grounds
(WBG) at Ravenna Army Ammunition Plant, Ravenna, Ohio.

1. References:

- a. DoD 6055.9-STD dated 5 Oct 2004, Department of Defense Ammunition and Explosives Safety Standards
- b. Munitions and Explosives of Concern Survey and Munitions Response at Winklepeck Burning Grounds, Ravenna Army Ammunition Plant, Ravenna, Ohio, dated 31 August 2004

2. Provided as enclosure 1 is a correction to the approved Explosives Safety Submission (ESS) describing minor changes being made to the work to remediate munitions and explosives of concern (MEC) from excavated soils within the former Winklepeck Burning Grounds (WBG) at the Ravenna Army Ammunition Plant.

3. The intent of this ESS correction is to present operational changes to the DDESB that do not otherwise increase explosives safety, risks or exposures. The changes to the approved ESS do not affect the Remedial Design/Remedial Action (RD/RA) at the WBG.

4. Request your office review the submitted document and provide any comments or recommendations to this office. Also, please notify me if there are no changes needed and the corrections to the ESS are approved as written.

5. POC for this memorandum is Mr. Mark Patterson, BRAC Environmental Coordinator, **mark.c.patterson@us.army.mil**.



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 5, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
LOAD LINE 1-4 RDI WORKPLAN APPROVAL

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Final Remedial Action Work Plan, Remediation of Soils at Load lines 1, 2, 3, and 4, Ravenna Army Ammunition Plant, Ravenna, Ohio." This document dated April, 2007 was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District by Shaw Environmental, Inc. under contract number DACA45-03-D-0026.

The above-referenced document is approved. Please ensure that all necessary Storm Water Pollution Prevention Plans (SWPPP) and Notices of Intent (NOI) are filed with the appropriate stakeholders. It is my understanding that courtesy copies of these documents will be supplied to me in order to complete the Ohio EPA NEDO DERR record. It is also my understanding that a revised Safety Health and Emergency Response Plan (SHERP) will be submitted to my attention early next week. Please note that Ohio EPA does not have legal jurisdiction over health and safety plans, and as such, approval of this final SHERP from Ohio EPA is not required for the contractor to commence work.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/ams

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Katie Elgin, OHARNG RTLS
MAJ Ed Meade, OHARNG RTLS
Glen Beckham, USACE Louisville
John Jent, USACE Louisville
Tom Lederle, BRAC
Mark Krivansky, AEC
Dave Cobb, Shaw
Dave Crispo, Shaw

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR





State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 10, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
LL1-4 ROD SIGN-OFF SHEETS

Mr. Tom Lederle
NC3/Taylor Building, Room 5000
2530 Crystal Drive
Arlington, VA 22202

CERTIFIED MAIL

Dear Mr. Lederle:

Enclosed with this correspondence, please find two copies of the Load Lines (LLs) 1-4 Interim Record of Decision (ROD) sign-off sheets. As requested by the Army, both copies have the original signatures of the Director, Ohio Environmental Protection Agency (Ohio EPA), and the Colonel of the Base Re-Alignment and Closure Division (BRAC-D).

If you have any questions, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

Enclosure

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Mark Navarre, Ohio EPA, Legal, CO
Glen Beckham, USACE Louisville
John Jent, USACE Louisville
Mark Krivansky, AEC
Katie Elgin, OHARNG RTLS
MAJ Ed Meade, OHARNG RTLS
Irv Venger, RVAAP
Dave Cobb, Shaw
Dave Crispo, Shaw

ec: Mike Eberle, Ohio EPA, DERR, NEDO
Todd Fisher, Ohio EPA, DERR, NEDO

Interim ROD Data Checklist Item	Interim ROD Section	Page
COCs and their respective concentrations.	II.E	7
Baseline risk represented by the COCs.	II.G	9
Clean-up goals established for COCs and the basis for these goals.	II.H	10
How source materials constituting principal threats are addressed.	II.K	21
Current and reasonably anticipated future land use assumptions used in the baseline risk assessment and Interim ROD.	II.F	9
Potential land use that will be available at the site as a result of the Selected Remedy.	II.L.4	26
Estimated capital, annual operation and maintenance (O&M), and the total present worth costs, discount rate, and the number of years over which the remedy cost estimates are projected.	II.L.3	25
Key factor(s) that led to selecting the remedy.	II.L.1	21

G AUTHORIZING SIGNATURES



James B. Balocki
Colonel, GS
Chief, Base Realignment and Closure Division

4-JUN-07

Date

Signature of the Director, Ohio EPA represents support agency acceptance of the remedy.



Chris Korleski
Director
Ohio EPA

7/3/07

Date



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 20, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
~~LOAD LINES 1-4~~ ROD/RD

COL James B. Balocki
Headquarters, Department of the Army
Assistant Chief of Staff for Installation Management
Base Re-Alignment and Closure Division
NC3/Taylor Building
2530 Crystal Drive, Room 5000
Arlington, VA 22202

CERTIFIED MAIL

COL Michael P. O'Keefe
Commander
U.S. Army Environmental Command
5179 Hoadley Road
Aberdeen Proving Ground, MD 21010-5401

Dear Colonel Balocki and Colonel O'Keefe:

The purpose of this correspondence is to convey the Ohio Environmental Protection Agency's (Ohio EPA's) concerns regarding the delay in completing remedial design (RD) work at Load Lines (LLs) 1-4. This delay occurred because the Army did not sign the Interim Record of Decision (ROD) for LLs 1-4 at the Ravenna Army Ammunition Plant (RVAAP) in time for Ohio EPA to approve the remedial design work plan for LLs 1-4 by June 29, 2007. The June 29, 2007 date was an enforceable milestone under the June 10, 2004 Administrative Orders on Consent between the Army and Ohio EPA for the RVAAP.

Section IX, paragraph 19, of the Order details the setting of milestone and target dates during the annual Installation Action Plan (IAP) meetings. Milestone dates are established to ensure that the RVAAP project stays on schedule. When these dates are set by Ohio EPA and the Army, they are chosen to ensure that the Army can meet their Defense Prioritization Goals (DPG) and Ohio EPA can ensure progress on the investigation and remediation of RVAAP. Milestone dates are enforceable under the Orders, and absent an extension, failure to perform work in accordance with a milestone constitutes a violation of the Orders (see section X, paragraph 22). To ensure the Army and their contractors meet the milestones, these dates are highlighted on the RVAAP master schedule, which is regularly emailed to all stakeholders and discussed every two weeks.

One of the milestones established for Federal Fiscal Year 2007 was finalization of the RD for the LLs 1-4 Performance Based Contract (PBC). In order to meet the milestone, Ohio EPA had to approve the final RD work plan on or before June 29, 2007. This date would

COL JAMES B. BALOCKI, HEADQUARTERS, DEPARTMENT OF THE ARMY
COL MICHAEL P. O'KEEFE, COMMANDER, U.S. ARMY ENVIRONMENTAL COMMAND
JULY 20, 2007
PAGE 2

ensure field work would begin summer 2007, so that all remedial action would be completed before the PBC contract expired and funding was lost. For the RD milestone date to be met, the ROD needed to be signed by both parties (Army and Ohio EPA) and the RD work plans reviewed and approved by Ohio EPA by the June 29, 2007 date. This date was not met, because the LLS1-4 ROD was not submitted by the Army to Ohio EPA in time for our Director to approve the ROD by June 29, 2007.

A version of the ROD was submitted in October 2006, and the Army was notified on November 9, 2006 that Ohio EPA was ready to submit the ROD for our Director's approval. On December 15, 2006, Ohio EPA received suggested changes on the ROD from the Army team. In correspondence, dated December 19, 2006, Ohio EPA agreed, in principle, with the proposed path forward, rescinded the November 9, 2006 approval letter, and indicated that the ROD needed to be revised and undergo additional review. The PBC contractor for this project provided timely documents, responses to comments, and document revisions. Final revisions to the ROD were received at Ohio EPA on January 19, 2007. Ohio EPA reviewed the final revisions and, on that same date, the Agency notified the Army that we were once again ready to begin the Agency sign-off process on the ROD. The Army Environmental Command (AEC) was to be the initial signatory to the ROD, followed by Ohio EPA. Subsequent to the January 19, 2007 correspondence, there were numerous emails and telephone discussions regarding the status of the signing of the ROD, and Ohio EPA was informed that the Base Re-Alignment and Closure Division (BRAC-D) would now be the signing authority for the Army. A briefing memo, detailing a number of issues, including the importance of the Army approving the LLS1-4 ROD, was sent to BRAC on May 11, 2007. It was also discussed during a face to face meeting with BRAC on May 17, 2007. The signature sheets (signed by BRAC and dated June 4, 2007) were received at Ohio EPA on June 22, 2007. Ohio EPA drafted the briefing memo, obtained district personnel sign-off, and forwarded the entire package to our Central Office (CO) on June 29, 2007. The ROD package was received in our CO on July 2, 2007, and the Director of Ohio EPA signed the ROD on July 3, 2007. Ohio EPA's quick response in approving this ROD enabled the LLS1-4 remediation to begin this summer, instead of being delayed until Fall 2007. If this delay would have occurred, the Army would have potentially faced both contracting and funding issues.

On June 27, 2007, the Army submitted a request to Ohio EPA to extend the LLS 1-4 RD milestone date to August 15, 2007. Although this request is now moot, the extension would have been denied, because it did not meet the conditions established in the Orders for extending a milestone date. The missed milestone was not due to: an unavoidable delay; Ohio EPA's failure to timely take any action contemplated by the Orders; the invoking of dispute resolution or the initiation of administrative or judicial action; additional work agreed to by the Respondent and Ohio EPA; or an inconsistency or conflict between the milestone and the requirements of any other existing agreement, order, or permit to which the Respondent is a party. Nor did Ohio EPA find the Army's argument persuasive that the extension was being requested in order to "accommodate an unexpected Army

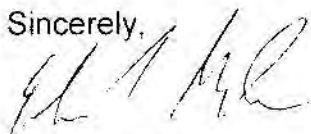
COL JAMES B. BALOCKI, HEADQUARTERS, DEPARTMENT OF THE ARMY
COL MICHAEL P. O'KEEFE, COMMANDER, U.S. ARMY ENVIRONMENTAL COMMAND
JULY 20, 2007
PAGE 3

approval requirement;" i.e., that the BRAC-D, rather than the AEC, would be the signatory for the LLs 1-4 ROD. Based on information provided by the Army, the determination that the ROD needed to be signed by BRAC was made in mid March 2007. Since the milestone dates were set before this determination was made, the Army should have been able to expedite the review and approval of the ROD to meet the RD milestone. There were also other delays that the Army should have been able to avoid (e.g., the two week delay before the ROD signature pages were mailed to Ohio EPA).

Ohio EPA has demonstrated our commitment to the Army's schedule for LLs1-4 by reviewing design documents before the ROD was finalized and expediting the sign-off of the ROD and approval of the RD workplan. The Army needs to demonstrate its commitment to meeting the mutually-agreed upon schedule by ensuring compliance with the milestone dates that are enforceable under the Orders. If the Army misses another milestone, Ohio EPA expects to issue a notice of violation (NOV) and, if necessary, seek escalated enforcement under the Orders. Additionally, the Army should not expect that Ohio EPA's future reviews or approvals will be expedited to maintain the Army's schedule, as we did at LLs1-4

I look forward to your response to this correspondence. If you have any questions, please do not hesitate to contact me at 330-963-1221.

Sincerely,



Eileen T. Mohr
Program Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Tom Lederle, BRAC
Mark Krivansky, AEC
Glen Beckham, USACE Louisville
Irv Venger, RVAAP

ec: Laura Powell, Assistant Director, Ohio EPA, CO
Mark Navarre, Ohio EPA, Legal, CO
Cindy Hafner, Chief, Ohio EPA, DERR, CO
Tom Winston, Chief, Ohio EPA, SWDO
Bonnie Buthker, Ohio EPA, DERR, SWDO
Bill Skowronski, Chief, Ohio EPA, NEDO
Rod Beals, Ohio EPA, DERR, NEDO



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 30, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
LOAD LINES 1-4 SHERP

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Revised Final SHERP Addendum, Remediation of Soils at Load Lines 1, 2, 3, and 4, Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated July 10, 2007 and received at Ohio EPA, NEDO, on July 12, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) Louisville District, by Shaw E&I, under contract number DACA45-03-D-0026-0001.

Although Ohio EPA does not have regulatory authority over health and safety plans (HASPs), a review of this document was made for project completeness. Ohio EPA does not have any comments on the submitted HASP.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
John Jent, USACE Louisville
Katie Elgin, OHARNG RTLS
Dave Cobb, Shaw

Glen Beckham, USACE Louisville
Mark Krivansky, AEC
MAJ Ed Meade, OHARNG RTLS
Dave Crispo, Shaw

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963 1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 31, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
~~LLS 1-4 NOI/SWPPP~~

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the "Final NOI and Storm Water Pollution Prevention Plan, Remediation of Soils at Load Lines 1, 2, 3 and 4, Ravenna Army Ammunition Plant, Ravenna, OH." This document, dated July 12, 2007 and received at Ohio EPA on July 13, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District by Shaw E&I, under contract number DACA45-03-D-0026-0001.

It is my understanding that the Notice of Intent (NOI) was submitted to Ohio EPA's Division of Surface Water (DSW) as required by the installation permit. The Storm Water Pollution Prevention Plan (SWPPP) was submitted to both the Ohio Army National Guard (OHARNG) and the Portage County Soil and Water District for official review and comment. However, for project completeness, I have reviewed the NOI and SWPPP. I have no comments on the submission.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
John Jent, USACE Louisville
Katie Elgin, OHARNG RTLS
Dave Cobb, Shaw

Glen Beckham, USACE Louisville
Mark Krivansky, AEC
Tim Morgan, OHARNG RTLS
Dave Crispo, Shaw

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

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50 W. Town St., Suite 700
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TELE (614) 644-1020 FAX (614) 644-3124
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MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

BASE REALIGNMENT & CLOSURE OFFICE

IRVING VENGER

RAVENNA ARMY AMMUNITION PLT, 8451 SR 5

RAVENNA OH 44266

RE: Approval for coverage under Ohio EPA General Permit OHC000002
STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY

Dear Applicant:

The Ohio Environmental Protection Agency has received a Notice of Intent (NOI) for coverage under the above referenced general permit for:

Facility Name: RAVENNA ARMY AMMUNITION PLT LOAD LINES 1,2,3&4

Facility Street / Location: 8451 STATE ROUTE 5

County: Portage

City(ies) and Township(s): RAVENNA ;

Ohio EPA Facility Permit Number: 3GC03379*AG

This site/facility is approved for coverage under the above referenced Ohio EPA construction general permit (CGP). Please use your Ohio EPA facility permit number in all future correspondences. Please familiarize yourself with your permit. The permit contains requirements and prohibitions with which you must comply. Coverage remains in effect until a renewal general permit is issued and Ohio EPA has contacted you in writing instructing you to request continuing permit coverage.

Be aware that if more than one operator, as defined in the permit, will be engaged at a site, each operator shall seek coverage under the general permit. One operator shall submit an NOI and the additional operator(s) shall submit a Co-permittee NOI. Co-Permittees are covered under the same facility permit number. There is no fee associated with the Co-permittee NOI form.

You may obtain additional information, copies of general permits and current forms/instructions from our web site at: <http://www.epa.state.oh.us/dsw/storm/stormform.htm>

If you have any further questions, you should contact one of the following:

OHC000002 (Statewide CGP)

Mike Joseph (614) 752-0782 michael.joseph@epa.state.oh.us

OHCD00001 (Big Darby CGP)

Jason Fyffe (614) 728-1793 jason.fyffe@epa.state.oh.us

Or by calling (614) 644-2001 and asking to speak with a member of the Storm Water Unit

Sincerely,

Chris Korleski
Director

CC: D BOGOEVSKI

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



Co-Permittee Notice of Intent for Coverage Under Ohio EPA Storm Water Construction General Permit

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized by Ohio's NPDES general permit for storm water associated with construction activity. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. **NOTE:** All necessary information must be provided on this form. Read the accompanying instructions *carefully* before completing the form. Do not use correction fluid on this form. Forms transmitted by fax will not be accepted. There is no fee associated with submitting this form.

I. Applicant Information/Mailing Address

Company (Applicant) Name: _____
Mailing (Applicant) Address: _____
City: _____ State: _____ Zip Code: _____
Contact Person: _____ Phone: _____ Fax: _____
Contact E-Mail Address: _____

II. Facility/Site Location Information

Existing Ohio EPA Facility Permit Number: _____ GC _____ OR _____ OHR1 _____
Initial Permittee Name: _____ Phone: _____
Facility/Site Name: _____
City: _____ Township(s): _____
County(ies): _____ State: _____ Ohio _____ Zip Code: _____
Facility Contact Person: _____ Phone: _____ Fax: _____
Facility Contact E-Mail Address: _____

III. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Name: _____ Title: _____
Applicant Signature: _____ Date: _____





Instructions for Completing the Co-Permittee Notice of Intent (NOI) for NPDES Construction Storm Water General Permit Coverage

When must I file a Co-Permittee NOI form?

You must file a Co-Permittee Notice of Intent (NOI) application form if you are a Co-Permittee operator identified by the initial permittee to share coverage under the NPDES construction storm water general permit (CGP). As defined in Part VII.O of the rule, an "operator" is any party that has operational control over construction plans and specifications or has day-to-day operational control of those activities at a project which are necessary to ensure compliance with the storm water pollution prevention plan (SWP3) for the site covered by the CGP. The permittee must certify their intention to comply with the CGP when submitting the completed Co-Permittee NOI. There is a fee for this application form. The application must be submitted to the following address:

Ohio Environmental Protection Agency
Division of Surface Water
General Permit Program
P.O. Box 1049
Columbus, OH 43216-1049

How do I complete the Form

All responses must be typewritten or printed legibly in the appropriate areas only. Please place each character slightly above the appropriate line on the Co-Permittee NOI application form. If necessary, abbreviate to stay within the space allowed for each item. Use only one space for breaks between words. If requested information does not apply to your facility, leave blank. Do not include any symbols or punctuation marks unless otherwise noted in these instructions.

Section I - Applicant Information/Mailing Address

Company Name: Fill in the legal name of the firm, person, organization, or other entity (other than the original NOI applicant) that operates the facility or site described in this application. The name of the operator may or may not be the same as the facility. The company name is the name of the responsible party that is the legal entity that controls the facility's operation rather than the plant or site manager. Do not use a trade name.

Mailing Address: Enter the complete mailing address, including street address, city, state, and zip code. The permit application and any correspondence will be mailed to this address.

Contact Person: Give the name of a contact person who is responsible for addressing NPDES requirements.

Phone and Fax: Provide the contact person's phone and fax numbers as: area code exchange numbers.

E-Mail Address: Enter the contact person's e-mail address, if available.

Section II - Facility/Site Location Information

Existing Ohio EPA Facility General Permit Number: Enter the facility permit number provided to the initial applicant (permittee) for the facility where you act as an operator. The

facility general permit number is stated on the permit coverage approval letter sent to the initial applicant and was signed by the director of Ohio EPA.

Initial Permittee Name: Enter the name of the initial applicant (permittee) whom already obtained coverage for the facility under general permit OHC000002 or DHR100000.

Facility/Site Name: Enter the facility or site's official or legal name. The facility/site is the location of the operation and discharge to be covered by the general permit. Do not use a colloquial name.

City/Township/County/Zip Code: Enter the city or township, county, and zip code of where the site is located.

Facility Contact Person: Give the name of the person who is responsible for the facility/site.

Phone and Fax: Provide facility contact person's phone and fax numbers as: area code exchange numbers.

Facility Contact E-mail Address: Provide the facility contact person's e-mail address, if available.

Section III - Certification

Type or print the name and title of the person who will sign the form. Next, sign and date the form. Federal and State statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or (2) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: by a general partner or the proprietor, respectively, or

For a municipality, state, or other public facility: by either a principal executive officer, the ranking elected official, or other duly authorized employee.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
RAVENNA ARMY AMMUNITION PLANT
8451 STATE ROUTE 5
RAVENNA, OHIO 44266-9297

November 15, 2007

To Whom It May Concern:

Re: Explosives detected in Non-Hazardous Soils at RVAAP Generated Under Shaw Environmental FPRI contract for ~~Load Lines 1-4~~

The material with detected explosives generated for the sites listed above is not a hazardous waste. There is no flammability, reactivity or health and safety issues associated with handling of the soils and the soils may be disposed of at a Subtitle D landfill. The material is proposed for acceptance by the Countywide Landfill under Waste ID No. 40230 submitted by Shaw's subcontractor, American Waste Management Services.

Sincerely,

A handwritten signature in cursive script that reads "Mark C. Patterson".

Mark C. Patterson
RVAAP Facility Manager

February 15, 2007

Re: Ravenna Army Ammunition Plant
Portage/Trumbull Counties
D/D and IRP Coordination at LLs 2-4

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

On January 18, 2007, a conference call was held between representatives of the Ohio Environmental Protection Agency (Ohio EPA), U.S. Army Corps of Engineers (USACE), Ravenna Army Ammunition Plant (RVAAP), Base Re-Alignment and Closure Office (BRACO), MKM Engineers, and Shaw Environmental. The purpose of the call was to discuss the coordination of decontamination/demolition (D/D) activities with the Installation Restoration Program (IRP) activities at Load Lines (LLs) 2-4 at the RVAAP. During the call, Ohio EPA indicated that a letter would be sent to the principal stakeholders, to memorialize our position regarding the issue of environmental sampling.

Ohio EPA has been involved with the IRP activities conducted at LLs 2-4 through the review and approval of documents. Although buildings in these LLs are contaminated with explosives and other contaminants, the Agency has not been involved in the review or approval of D/D documents. Ohio EPA recognizes that the Army's intent is to prevent contamination caused by D/D activities. However, even the best management practices during the D/D activities cannot ensure that contamination will not be spread.

The remediation proposal for LLs 1-4 involves removing contaminated soils that exceed cleanup standards for these areas of concern (AOCs). The extent of soil contamination that needs to be removed was determined prior to D/D activities occurring at LL 2-4. If cross contamination occurs in the areas proposed for excavation, it will be removed as part of the current remediation. Other areas where contamination is below remediation levels will not be excavated. If cross contamination occurs in these areas, this contamination would not be addressed. In addition, since these areas are not being excavated, confirmation sampling as part of the remediation will not be conducted to determine if soil contamination continues to remain below cleanup levels. Ohio EPA also understands that BRACO has no plans to sample soils within this area, to demonstrate that building demolition activities did not cause contamination.

Under the Administrative Orders on Consent between Ohio EPA and the Army (June 10, 2004), it is Ohio EPA's responsibility to ensure that the levels of contamination remaining in the AOCs do not pose a risk to future users of this site. As stated previously, Ohio EPA believes that D/D activities have the potential to impact the soils within LLs 2-4. Without sampling to confirm contamination has not occurred, Ohio EPA cannot ensure that soil contamination remaining at LLs 2-4 does not pose a potential risk. Ohio EPA, therefore, cannot agree that further remediation of LLs 2-4 is not needed until confirmation sampling demonstrates that soils were not impacted by D/D activities.

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2854

IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
FEBRUARY 15, 2007
PAGE 2.

The Army is responsible for the effective remediation of LLs 1-4. The Army is also responsible for ensuring that D/D or other activities at LLs 2-4 do not adversely impact the environmental media at these AOCs. Ohio EPA recognizes that the Army uses different funding sources for D/D activities and restoration activities. Ohio EPA does not care whether the Army uses BRAC funding or IRP funding to demonstrate that contaminant levels in soils do not pose a risk for use of the sites for training by the Ohio Army National Guard. Ohio EPA will hold the Army responsible for preparing a sampling plan, conducting sampling, and performing laboratory analyses of the samples to demonstrate that the residual soil levels do not pose a risk.

Per our responsibilities under the Administrative Orders on Consent, Ohio EPA will review and approve all sampling plans for this work. We also intend to collect split samples as necessary, to verify the Army's sampling results. Once the analytical results are received and evaluated, Ohio EPA will then determine whether or not remediation is complete at these AOCs.

We trust that this correspondence clarifies our position regarding this matter. If you have any questions, please do not hesitate to contact Bonnie Buthker at (937) 285-6469 or Eileen Mohr at (330) 963-1221.

Sincerely,

Eileen T. Mohr, Project Manager
Division of Emergency and Remedial Response
Northeast District Office

Bonnie Buthker, DOD Program Manager
Division of Emergency and Remedial Response
Southwest District Office

ETM/kss

cc: Katie Elgin, OHARNG RTLS
MAJ Ed Meade, OHARNG RTLS
Glen Beckham, USACE Louisville
John Jent, USACE Louisville
Mark Krivansky, AEC
Tom Lederle, BRAC
Elyse Meade, TACOM
Jeff Gollon, TACOM

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

Northeast District Office

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Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

April 25, 2007

RE: RAVENNA ARMY AMMUNITION
PLANT PORTAGE/TRUMBULL
COUNTIES D/D AND IRP
COORDINATION AT **LOAD LINES 2-4**

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

On February 15, 2007, the Ohio Environmental Protection Agency (Ohio EPA) sent a letter to the Army concerning the coordination of decontamination/demolition (D/D) and Installation Restoration Program (IRP) activities at Load Lines 2 - 4 at the Ravenna Army Ammunition Plant (RVAAP). As we stated in the February 15, 2007 letter, Ohio EPA believes that the D/D activities conducted at Load Lines 2 - 4 have the potential to impact the surrounding soils. Ohio EPA will therefore not agree that additional remediation is not necessary until confirmation sampling demonstrates that soils were not impacted by D/D activities. To date, Ohio EPA has not received a response from the Army to our February 15, 2007 letter.

We recognize that the Army has to resolve which program [Base Re-Alignment and Closure (BRAC) or Installation Restoration] is responsible for funding the work necessary to demonstrate that contaminant levels in soils do not pose a risk for the use of the areas of concern (AOCs) by the Ohio Army National Guard (OHARNG). However, the D/D and load-out of materials at Load Lines 2 - 4 is ahead of schedule, and should be completed relatively soon. With the completion of the demolition work, it is now time for the Army to plan to conduct the necessary investigation of these areas. If not, these areas will not be transferred on schedule to the OHARNG. That will affect your deadlines for property transfer, and will also affect the ability of the OHARNG to redevelop these areas for their training needs.

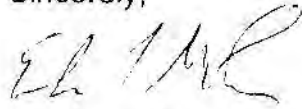
In accordance with Ohio EPA's responsibilities under the Administrative Orders on Consent, Ohio EPA will review and approve all sampling plans for this work, as well as exercise our option to collect split samples. Once the analytical results are received and evaluated, Ohio EPA will determine whether or not remediation is complete at these areas of concern. So that we can plan our work accordingly, Ohio EPA therefore requests that the Army present us with a draft schedule of activities for work plan preparation, review, and approval; field work; and preparation of draft and final sampling completion reports.

MR. IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
APRIL 25, 2007
PAGE 2

Please advise me, as soon as possible, when this draft project schedule will be received by Ohio EPA. These activities will then be put on the RVAAP master schedule.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Katie Elgin, OHARNG RTLS
MAJ Ed Meade, OHARNG RTLS
Glen Beckham, USACE Louisville
John Jent, USACE Louisville
Mark Krivansky, AEC
Tom Lederle, BRAC

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

Northeast District Office

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www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 20, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
POST D/D SAMPLING - ADDITIONAL WORK

Mr. Tom Lederle
Base Re-Alignment and Closure Division
NC3/Taylor Building
Room 5000
2530 Crystal Drive
Arlington, VA 22202

CERTIFIED MAIL

Mr. Mark Krivansky
U.S. Army Environmental Command
ATTN: SFIM-AEC-BRC/M
5179 Hoadley Road
Aberdeen Proving Ground, MD 21010-5401

Dear Messrs. Lederle and Krivansky:

On January 18, 2007, a conference call was held between representatives of the Ohio Environmental Protection Agency (Ohio EPA), U.S. Army Corps of Engineers (USACE), Ravenna Army Ammunition Plant (RVAAP), Base Re-Alignment and Closure Division (BRACD), MKM Engineers, and Shaw Environmental. The purpose of the call was to discuss the coordination of decontamination/demolition (D/D) activities with the Installation Restoration Program (IRP) activities at Load Lines (LLs) 2-4 at the RVAAP. During that call, Ohio EPA indicated that correspondence would be sent to the principal stakeholders, to memorialize our position regarding the issue of environmental sampling. This correspondence was sent to the RVAAP's acting facility manager, via certified mail, on February 15, 2007. A copy of this correspondence was also sent to your attention.

The February 15, 2007 correspondence states that under the June 10, 2004 Administrative Orders on Consent between the Army and Ohio EPA, it is Ohio EPA's responsibility to ensure that the levels of contamination remaining in the Areas of Concern (AOCs) do not pose a risk to future users of this Site. Ohio EPA believes that the D/D activities have the potential to impact the soils within LLs 2-4. Without sampling to confirm that contamination has not occurred, Ohio EPA cannot ensure that soil contamination remaining at LLs 2-4 does not pose a potential risk. Ohio EPA, therefore, cannot agree that further remediation of LLs 2-4 is not needed, until confirmation sampling demonstrates that soils were not impacted by D/D activities. Further, the correspondence indicates that Ohio EPA, regardless of funding source, holds the Army responsible for preparing a sampling plan, conducting sampling, and performing laboratory analyses of the samples, to demonstrate that the residual soil levels do not pose a risk.

Because no Army response to the February 15, 2007 correspondence was received, Ohio EPA sent additional correspondence on April 25, 2007, via certified mail, to the RVAAP acting facility manager (with copies to your attention), re-iterating our previous request. This correspondence also requested that the Army prepare and send a draft schedule as to when the necessary work

MR. TOM LEDERLE, BASE RE-ALIGNMENT AND CLOSURE DIVISION
MR. MARK KRIVANSKY, U.S. ARMY ENVIRONMENTAL COMMAND
JULY 20, 2007
PAGE 2

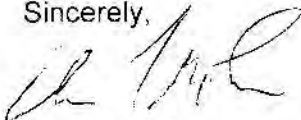
would be conducted. No response to Ohio EPA's April 25, 2007 correspondence was received from the Army.

On June 14, 2007, Ohio EPA sent correspondence directly to your attention (via certified mail) with a copy to the RVAAP acting facility manager, regarding the sampling issue. Along with this correspondence, copies of the February 15, 2007 and April 25, 2007 correspondence were attached. The correspondence indicates that a rapid response and resolution of this matter was anticipated by Ohio EPA. Again, as of this date, no Army response to Ohio EPA's June 14, 2007 correspondence has been received.

Accordingly, Ohio EPA is hereby invoking the additional work clause (Section XI) of the June 10, 2004 Director's Final Findings and Orders. This section of the Orders requires the Respondent (Army) to submit a workplan within sixty (60) days of receipt of written notice from Ohio EPA that additional work is necessary. The workplan that is developed should contain the requisite components of investigative workplans, including the field sampling plan (FSP), Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP). All details including, but not limited to: Site history and setting; data quality objectives (DQOs); conceptual site model (CSM); sampling types, numbers and locations; sampling methodologies; quality assurance(QA)/quality control (QC) samples; analytes of interest; analytical methods; laboratory selection; decontamination of equipment; disposition of investigation derived wastes (IDW), etc., need to be included. The workplan that is developed should tier under and supplement the facility-wide documents that are already in place.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Glen Beckham, USACE – Louisville
Katie Elgin, OHARNG RTLS

MAJ Ed Meade, OHARNG RTLS
Irv Venger, RVAAP

ec: Bill Skowronski, Chief, Ohio EPA, NEDO
Bonnie Buthker, Ohio EPA, DERR, SWDO
Cindy Hafner, Ohio EPA, DERR, CO
Mike Eberle, Ohio EPA, DERR, NEDO
Pete Whitehouse, Ohio EPA, DERR, CO

Tom Winston, Chief, Ohio EPA, SWDO
Mark Navarre, Ohio EPA, Legal, CO
Rod Beals, Ohio EPA, DERR, NEDO
Todd Fisher, Ohio EPA, DERR, NEDO



DEPARTMENT OF THE ARMY
ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

September 24, 2007

DAIM-BD

Ms. Eileen Mohr
2110 East Aurora Rd.
Twinsburg, OH 44087

Dear Ms. Mohr,

What you request is unreasonable for multiple reasons. You have not presented any evidence that the recent demolition activities were completed in such a way to present a hazard in areas that have already been sampled. Even assuming that there is a reason to conduct soil testing following routine demolition, it does not make sense to do any additional testing on LL 2-4 as long as slabs remain in place on the site. There will be no reuse and no exposure since, as you are aware, the Ohio Army National Guard has declined to accept the property with the slabs in place. In the event slabs are removed, I assume you would again be concerned about potential cross contamination and would want the same areas to be tested again.

However, as you and I discussed last week, the Army has been able to get some otherwise unused funds at the end of our fiscal year and we have persuaded the contractor at Ravenna to honor the bid price that had expired in August so I anticipate that we will be able to award the option to remove slabs from load lines 2, 3, and 4 by end of September with work commencing in the next few months.

I understand that, when removal of the slabs is complete, the Army will be responsible for sampling the soils under the slabs and for conducting any additional removal actions identified by the testing. I propose that additional confirmatory sampling associated with building demolition be conducted concurrently with the areas under the slabs.

Thank you for your consideration of this matter and for your continued partnership in the ongoing clean-up at Ravenna Army Ammunition Plant.

Respectfully,

Thomas E. Lederle
Industrial Branch Chief
ACSIM BRAC Division



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Road
Twinsburg, OH 44087-1924

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www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Laura H. Powell, Acting Director

January 11, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
DRAFT MEC/DMM/MC WORKPLAN AND APP

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:


The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the following documents:

1. Draft Work Plan, Disposal of Munitions and Explosives of Concern (MEC), Discarded Military Munitions (DMM), and Munitions Constituents (MC), Ravenna Army Ammunition Plant; and
2. Draft Accident Prevention Plan, Disposal of Munitions and Explosives of Concern (MEC), Discarded Military Munitions (DMM), and Munitions Constituents (MC), Ravenna Army Ammunition Plant.

These documents, dated December 2006 and received at Ohio EPA, NEDO, on December 12, 2006, were prepared by PIKA International Inc. for the U.S. Army Tank-Automotive and Armaments Command (TACOM) under contract number W52H09-06-5021.

Enclosed, please find Ohio EPA's comments on the above-referenced documents. If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,


Eileen T. Mohr, Project Manager
Division of Emergency and Remedial Response

ETM/kss

Enclosure

cc: Bonnie Buthker, Ohio EPA, SWDO, OFFO
Katie Elgin, OHARNG RTLS
John Jent, USACE Louisville
Elyse Meade, TACOM
Brian Stockwell, PIKA

MAJ Ed Meade, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
Jeff Gollon, TACOM

ec: Mike Eberle, Ohio EPA, NEDO, DERR

Todd Fisher, Ohio EPA, NEDO, DERR

Disposal of Munitions and Explosives of Concern (MEC), Discarded Military Munitions (DMM) and Munitions Constituents
Ravenna Army Ammunition Plant

Reviewer: Eileen T. Mohr, Ohio EPA, NEDO, DERR

Date: January 11, 2007

Draft Work Plan:

Cmt #	Page # / Line #	Comment	Recommendation / Requirement	Response
1	Major	The Directors Final Findings and Orders (V)(15c) indicate that the FGWMPP shall include regularly scheduled groundwater monitoring activities specific to ODA2, to ensure that detonations taking place at this AOC do not adversely impact upon the groundwater. The text of this document does not present a schedule, nor is there any discussion as to how there will be coordination of the demolition efforts with the FGWMPP schedule and contractor.	Please add text to the revised workplan that indicates how the efforts covered in this workplan will mesh with the FGWMPP, so that we can detect if the detonations impact upon the groundwater. <i>Chw/Hockett on monitoring frequency</i>	
2	General	Thanks for numbering the lines, it really helps.	No change required.	

3	General	<p>Please check grammar and spelling. Here are a few items noted (may not be all inclusive):</p> <p>Spelling: environmental (1-2/14); Frederick (2-5/23); manager (2-9/28 and 10-5/7); health (10-5/24); Remalia (Appendix C battery photo); have (App E, DQCR initial phase 6th row from the bottom); and, segregation (App E, DQCR initial phase 3rd row from the bottom.</p> <p>Remove extra words in sentences: first "and" on 10-1/28; and, second "results" on 10-13/4</p> <p>Verb subject/tense agreement - change to: provided (2-6/16); and conform.</p> <p>Capitalization: Explosives (1-2/11).</p>		
4	I/4	<p>Bill Wynne is no longer the BRACO representative for this project.</p> <p>Also applicable to: 2-7/23; and 2-14/9.</p>	Please revise the text to provide the name of the new BRACO contact.	

5	1-2/27	<p>Use the term multi-increment rather than multi-incremental.</p> <p>Also applicable to: 2-5/4.</p>	Make changes as necessary throughout the text.	
6	1-4/14	<p>The text references the old burn trays located near Pad 64 in WBG. There are discrepancies within the text and figures as to where the location actually is; i.e., sometimes designated as Pad 64 and sometimes Pad 65.</p> <p>Other references to Pad 64 or 65 are found on: 2-6/18; 4-2/3; Appendix B figure 2; Appendix B figure 3; Appendix B figure 3A; Appendix B figure 3B; App C, second photo</p>	Please clarify which burn pad these trays are located near, and make it consistent throughout the text and appendices.	
7	1-4/20-21	<p>The text indicates that one of the tasks is to clean up the oil spill in Building 47-59 at the Railroad Classification Yards.</p> <p>Also applicable to: 2-7/3-8; and, photo in Appendix C.</p>	Please provide additional information regarding the integrity of the floor in this building and whether or not there has been a potential release to the environment.	
8	2-1/13-26	<p>The text does not reference the Directors Final Findings and Orders (journalized 06/10/2004).</p> <p>Also applicable to: 16-1.</p>	Please add a reference to the Orders.	

9	2-4/8	<p>The text indicates that propellants will be tested in accordance with modified method 8330.</p> <p>Also applicable to: 2-4/22.</p>	Please ensure that nitroglycerin, nitroguanidine and nitrocellulose are all covered by this methodology.	
10	2-4/9-18	<p>1. Please confirm that Ohio EPA will be involved with the selection of areas to be sampled.</p> <p>2. Please clarify how the 0-6" depth interval was chosen for sampling. (Surface soil at RVAAP is 0-1' bgs.)</p> <p>3. Please clarify the schedule for demo operations, so that it can be determined if one MI soil sample before operations commence and one after the operations cease is sufficient.</p>	Text clarifications requested.	
11	2-6/3	<p>It is not so much that Ohio EPA approves the source of the borrow material (if needed), but that we review the analytical results (full RVAAP suite) and approve/disapprove the material for use as backfill based upon the results.</p>	Text clarification requested.	

12	2-7/3-4	The text indicates that the floor of Building 47-59 will be cleaned.	Provide additional details on this process, i.e., how it will be cleaned; cleaning materials utilized; floor integrity; and, whether or not there could have been a release to the environment, etc.	
13	2-7/14-19	The text discusses what will happen if there are changed conditions. Specifically, the Facilities Manager will be contacted if site operations or project funding will be impacted by site conditions.	Notify Ohio EPA if site operations or schedules are impacted. (Notification not needed for impacts to project funding).	
14	2-15/2	The text references locating MEC during this effort.	Please clarify whether or not this is one of the goals of this project. If not, please delete.	
15	2-18/12	The text references collecting "large" MEC fragments and debris.	Please define "large." The entire area should be thoroughly policed (i.e., large and small fragments removed) prior to restoration efforts. This is especially true since this RCRA area previously underwent a substantial excavation and sifting process.	

16	3-2/12-13	The text indicates that if it is concluded that explosives are lost or stolen, the procedure "listed below" will be followed. Also applicable to: 3-5/24-25.	Please specify that this procedure is found in Section 3.3.8.	
17	4-1/1-6	The text indicates that the DDESB approval of the ESS is pending.	Please provide an update as to the status of DDESB's review.	
18	4-2/9	Text revision requested.	Change text to read: "...419 feet and 69 feet for the burn trays.	
19	8-1/8-10	The text indicates that proposed schedule is located in Appendix B as Figure 5. No schedule was found.	Please provide a schedule.	
20	8-2/14-15	The text in this section discusses reporting requirements.	Please add in the bi-weekly schedule calls with all contractors and governmental agencies.	
21	10-2/18	The text in this section references excavations.	Please confirm that no excavations (i.e., demo pits) are proposed for this project. Or, if they are, the depth of the pits.	
22	10-2/30-32	The text indicates that special measure will be taken to ensure that pollutants do not enter public waters.	Contact OHARNG to determine if a NOI under the stormwater regs is required.	

23	12-1/1-5	The text indicates that an IDW plan is not under this contract. However, sections 2.5.3.3 and 2.5.6 discuss stockpile waste characterization and power washing respectively and, if there is decon of sampling equipment, IDW will be generated.	Please clarify how there can be the potential generation of IDW and no IDW plan in place. Any wastes generated cannot be left on site - they must be disposed of in accordance with all applicable State, Federal, and local rules, laws, and regulations.	
24	Appendix B/ Figures 2, 3, 3A and 3B	A. Intermittent water bodies should be indicated as such. B. Legend should indicate (red dot) this is the Demolition Area, not a "Dem Area." C. Clarify location of burn trays - either Pad 64 or 65.	Revise figure accordingly.	
25	Appendix B/Figure 3C	A. Remove railroad tracks symbol from legend. B. Remove demolition area from legend. C. Intermittent water bodies should be indicated as such	Revise figure accordingly.	
26	Appendix B/Figure 4	This diagram is confusing. It is unclear as to how the orientation was determined.	Please clarify	

27	Appendix E	Ohio EPA will not comment on the accuracy of the MSD calculations, munitions selected, fragmentation characteristics, etc. That is the realm of the DDESB. However, it would be helpful to know who prepared the calculations.	Add preparer's name to the MSD Calculation Sheet cover page.	
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Draft Accident Prevention Plan: Although Ohio EPA does not have jurisdiction over health and safety plans, the following comments are offered for your consideration.

Cmt #	Page # / Line #	Comment	Recommendation / Requirement	Response
28	General	Thanks for numbering the lines, it really helps.	No change required.	
29	6/4-5	Change requested in two places. Also applicable (one place) to 8/10.	Change detonation to demolition.	
30	9/8	Change requested.	Change 1200 acres to 1280 acres.	
31	13	Bill Wynne is no longer the BRACO representative for this project. Also: Attach 1 page 1; attach 1 table 9.	Please revise the text to provide the name of the new BRACO contact.	

32	23/10-13	The text in this section is awkward, as it implies PIKA management can authorize an employee to work, or report to work, if they are impaired by an authorized or controlled substance.	Please re-work text to be more clear.	
33	Attach 1-3/16-36	Addition requested.	Cross reference the installation wide HASP.	
34	Attach 1-6/first table	There is no source or date for the provided climatological data.	Please provide the source and date of information.	
35	Attach 1-6/second table	The text references Load Lines 8 and 10.	Remove reference to these load lines.	
36	Attach 1-6/second table	Is there any information on the storage boxes; i.e., if they are treated with any substance?	Please add information if you have it.	
37	Attach 1-8/29-30	The text references walking on roofs, use of ladders, etc.	Is it expected that these activities will be occurring during this project?	
38	Attach 1-38/34-36	The text references trenching and excavation operations and that SOP-34 can be found in Appendix C.	SOP-34 does not appear in Appendix C.	

39	Attach 1-48/figure	The chart indicates that there will be two stretchers, one on the EZ side of the hot zone and one on the PDS side of the hot zone.	Please use extreme caution when transferring a patient from one stretcher to another. Unless it is absolutely essential, why do it? In the event that ALS is required and the patient requires intubation, recent research has shown that moving a patient from one stretcher to another, moving a patient into the ambulance, etc., has resulted in a high percentage of extubations.	
40	Attach 1-62/12	Word change.	Change accessed to assessed.	

44	Attach 1-62/20-22	<p>There seems to be some confusion between the terms ALS and BLS and minor first aid. ALS measures can be performed by EMT-Is and paramedics; EMT-Bs can provide BLS; first responders can provide some BLS and first aid. If a patient does not require ALS support, but requires BLS measures - examples: AED use, insertion of airway adjuncts; use of MAST trousers, treatment using Epi Pens, NG, etc., they should not be transported via a personal vehicle.</p> <p>Also applicable to Attach 1, 63/26-31.</p>	Perhaps it would be better stated that if a person only requires non-life threatening, basic first aid that they can be transported by a site vehicle.	
45	Attach 2	This attachment includes the certification of hazards analyses.	Please clarify when these will receive sign-off.	
46	Attach 2- page 9	This page contains an activity hazard analysis for disposal of asbestos-contaminated soil.	Unless this is part of the project, remove this page.	
47	Attach 2- page 29	This page contains the job steps for an activity hazard analysis for disposal of tar roofing material, disposal of transite, etc.	Unless this is part of the project, remove this information.	

48	Attach 3/SOP- 35	This is a SOP for Building and Demolition safety. It is not on the list of SOPS included in the attachment.	If not relevant to this project, please remove.	
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State of Ohio Environmental Protection Agency

Northeast District Office

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recd 7-18-07
Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 16, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
MEC EXTENSION

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

On July 13, 2007, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) received your correspondence, dated July 11, 2007, requesting an extension for the submission of the *Preliminary Draft Munitions and Explosives of Concern (MEC) Disposal Report*. The current Order milestone date is set for August 16, 2007, and the extension that is requested would move the Order milestone date to October 19, 2007.

Ohio EPA agrees that there is good cause to extend the milestone date, based upon the unforeseen percentage of MEC detonations that have gone high order; as well as the MEC incident at Rocket Ridge, which required the suspension of disposal activities for two weeks. Please be advised that the Order milestone date will not be extended past the requested October 19, 2007 date.

If you have any questions, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Glen Beckham, USACE Louisville
Tom Lederle, BRAC
Mark Krivansky, AEC
Brian Stockwell, PIKA
Sharukh Kanga, PIKA

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 25, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
MEC DISPOSAL AAR

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Preliminary-Draft, Disposal of Munitions and Explosives of Concern (MEC), Discarded Military Munitions (DMM) and Munitions Constituents (MC), Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated October 2007 and received at Ohio EPA, NEDO, on October 19, 2007, was prepared for the U.S. Army Tank-Automotive and Armaments Command (TACOM) by PIKA International, Inc., under contract number W52H09-06-C-5021.

The document is of excellent quality and the PIKA personnel responsible for the preparation of the report are to be commended. The report is well organized, the activities which took place are well documented, field logs are in excellent shape (including very detailed soil descriptions), and the conclusions that are drawn are well substantiated by the presented data. Because of the high quality of this report, I verbally discussed all of my comments with Mr. Brian Stockwell and Ms. Sue Boles this a.m. and indicated that I would only memorialize a few of them for the file.

Unless other stakeholders are of a differing opinion, because of the document quality, it is my opinion that the draft iteration can be omitted (i.e., go directly from a preliminary-draft to a final report). The path forward for this document would be as follows:

- a. Revise the text portion of the document consistent with the reviewers' comments;
- b. Remove the line numbers from the revised text;
- c. Submit the revised text along with agreed-upon revised figures and signed manifests for the appendices; and

- d. Provide replacement cover sheets and spines that indicate that this is a final report.

A review of the final document will be conducted by Ohio EPA (and potentially other stakeholders), to ensure that the requested changes have been made.

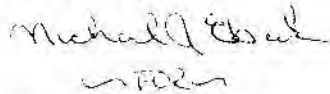
Ohio EPA's comments are as follows:

1. (Page 5, lines 11-12): Change text to read: "A copy of the Ohio EPA MEC Demolition/Disposal Notification and Ohio EPA's April 2, 2007 email acknowledgement are provided in Appendix E."
2. (Appendix B): On figure 1, please provide clarification as to which map the presented scale is applicable. Provide a replacement figure.
3. (Appendix B): On figure 3, please provide a north arrow. In addition, please remove all extraneous sediment/surface water sampling points from the figure. Please provide a replacement figure.
4. (Appendix E): Please add a copy of Ohio EPA's April 2, 2007 email to this appendix.
5. (Appendix I): The Ravenna AAP Explosives Storage Structure Inspection Record is not completely filled out (i.e., the form states that if a "yes" is indicated in any of the sections, that there is to be an accompanying explanation). This needs to be done by the RVAAP Industrial Specialist.
6. (Appendix J): Please provide a signed copy of manifest # 185574.
7. (Appendix N): Please provide details (if available) regarding truck # and BOL Shipper's # on the Wall Street Recycling ticket.
8. (Appendix Q): Please provide a signed copy of manifest # 185605.
9. (Appendix T): As discussed, there are a couple STL Cooler Receipt Forms/Narratives that indicate the coolers were received without custody seals. During future projects, if this is noted on the lab form, please follow up with the lab to confirm whether this is actually the case, or whether the wrong box was accidentally checked.

MR. IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
OCTOBER 25, 2007
PAGE 3

If you have any questions or comments concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
MAJ Ed Meade, OHARNG RTLS
Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
Tom Lederle, BRAC-D
Jeff Gollon, TACOM
Brian Stockwell, PIKA
Sharukh Kanga, PIKA

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

November 17, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL MEC AAR

Mr. Mark Patterson
Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Final Report, Disposal of Munitions and Explosives of Concern (MEC), Discarded Military Munitions (DMM) and Munitions Constituents (MC), Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated November 2007 and received at Ohio EPA on November 08, 2007, was prepared for the U.S. Army Tank Automotive and Armaments Command (TACOM) by PIKA International Inc., under contract number W52H09-06-C-5021.

This document was compared to the preliminary draft report and the comment response tables. The final document is approved.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr, Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
MAJ Ed Meade, Ravenna Training & Logistics Site
Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
Tom Lederle, BRAC-D
Jeff Gollon, TACOM
Brian Stockwell, PIKA
Sharukh Kanga, PIKA

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR

OPTION A Annotated Worksheet: Joint CA Execution
UPDATED

~~Sept 6-14-07~~ 6/15/07
SENT FROM INSTALLATION
ON 6/15/07 AND
RECEIVED AT
OHIO EPA ON
6/15/07

Service: Army

Name of Installation: Ravenna Army Ammunition Plant (RVAAP)

Project or Operable Unit: NA

State: Ohio

Funding Source

DERP X
BRAC 1
BRAC 2
BRAC 3

Cooperative Agreement (CA) Period: July 1, 2006 - June 30, 2007 (Year 1)
July 1, 2007 - June 30, 2008 (Year 2)

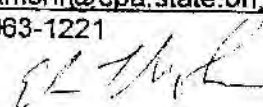
Attached is a two year deliverable schedule. This represents the best projection of work during the above-specified CA period, and has been agreed to by representatives from Ohio Environmental Protection Agency (Ohio EPA), US Army Environmental Center (AEC), US Army Corps of Engineers (USACE) - Louisville District and RVAAP Installation Representatives.

In addition to the attached work schedule, other activities may include but not be limited to: technical and community involvement meetings (Restoration Advisory Board, public tours, CERCLA-mandated public involvement, etc.); partnering meetings; key technical and programmatic training; field oversight and split sampling; and, preparation of quarterly reports as well as Ohio EPA and Army data base/tracking entries (PRE-CLAIMS, document tracking, REIMS etc).

State Project Manager: Eileen T. Mohr

E-Mail: eileenmohr@epa.state.oh.us

Phone: 330-963-1221

Date Signed:  6/15/07

Signature:



RVAAP Acting Installation Manager: Irving Venger

E-Mail: Irving.b.venger@us.army.mil

Phone: 330-358-7304

Date Signed:

Signature:

DESMOA.CAP.2YDS

29.00F

EPA Two Year Look Ahead Report (July 1, 2006 - June 30, 2008)

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
FACILITY WIDE								
ECO FIELD TRUTHING REPORT								
DATA EVALUATION / REPORTING								
F1VG135	Review Revised Final ECO Field Truthing Report	33*	0*	31JUL06A	15AUG06A			
FACILITY WIDE SURFACE WATER ADDENDUM								
DATA EVALUATION / REPORTING								
F1VF022A	(SW) Draft SW Addendum Review	45	45	07DEC07	20JAN08			
F1VF022B	(SW) Draft SW Addendum RTC/Meeting	1	1	05FEB08	05FEB08			
F1VF024A	(SW) Final SW Addendum Review	45	45	15MAR08	28APR08			
FACILITY WIDE GROUND WATER								
Project Planning/Oversight								
F1WF1016X	(GW) Meeting on Plan for Future FWGWMP	2	0	18JUL06A	19JUL06A			
F1WF133	(FWGWMP) Perchlorate Review Meeting	1	0	05OCT06A	05OCT06A			
F1WF0300	FWGWMP - Status Update & Planning Meeting	3	3	26JUN07*	28JUN07			
FWGW - Year 2								
F1WF2020A	(GW) Sampling Event 2 - Review Draft Report	45	0	22JUL06A	07SEP06A			
F1WF2020C	(GW) Sampling Event 2 - Draft Report Review RTC	45	0	21SEP06A	20OCT06A			
F1WF3020A	(GW) Sampling Event 3 - Review Draft Report	45	0	30SEP06A	14NOV06A			
F1WF2027A	(GW) Sampling Event 2 - Final Report Review OEPA	45	0	25OCT06A	25OCT06A			
F1WF5012	(GW) FW GW Draft Annual Rpt Review OEPA	35	0	11DEC06A	16JAN07A			
F1WF3020A3	(GW) Sampling Event 3 - Review Rev. Draft Report	44	0	22DEC06A	17JAN07A			
F1WF4020A	(GW) Sampling Event 4 - Review Draft Report	45	0	23DEC06A	01FEB07A			
F1WF3020A5	(GW) Sampling Event 3 - Review Draft Report RTC	35	0	01FEB07A	07MAR07A			
F1WF3027A	(GW) Sampling Event 3 - Final Report Review OEPA	45	0	10MAR07A	13APR07A			
F1WF4027A	(GW) Sampling Event 4 - Final Report Review OEPA	45	0	20MAR07A	13APR07A			
F1WF5012B	(GW) FW GW Draft Annual Rpt RTC Review	64*	10*	22MAR07A	24MAY07			
F1WFS5020A	(GW) Sampling Event 5 - Draft Report Review/Appr	46*	28*	27APR07A	11JUN07			
F1WF5016	(GW) FW GW Final Annual Rpt Review OEPA	45	45	11JUN07	26JUL07			
F1WFS5060	(GW) April 07 - Draft Report Review/Approval	45	45	28JUL07	10SEP07			
F1WFS5027A	(GW) Sampling Event 5 - Final Report Review OEPA	45	45	21AUG07	04OCT07			
F1WFS5120	(GW) July 07 - Draft Report Review/Approval	45	45	12OCT07	25NOV07			
F1WFS5067	(GW) April 07 - Final Report Review/Approval	45	45	31OCT07	14DEC07			
F1WF6012	(GW) FW GW Draft Annual Rpt Review/Approval	35	35	11NOV07	15DEC07			
F1WFS5127	(GW) July 07 - Final Report Review/Approval	45	45	16JAN08	29FEB08			
F1WF6012B	(GW) FW GW Draft Annual Rpt RTC Review	45	45	02FEB08	17MAR08			
F1WF6016	(GW) FW GW Final Annual Rpt Review/Approval	45	45	04APR08	18MAY08			
FWGW - Year 3								
F1WFS5220	(GW) Oct 07 - Draft Report Review/Approval	45	45	15JAN08	28FEB08			
F1WFS5227	(GW) Oct 07 - Final Report Review/Approval	45	45	19APR08	02JUN08			
F1WFS5320	(GW) Jan 08 - Draft Report Review/Approval	45	45	25APR08	08JUN08			
F1WFS5327	(GW) Jan 08 - Final Report Review/Approval	45	45	30JUL08	12SEP08			
MANAGEMENT/COORDINATION PLANS								
CONTRACT PROCUREMENT								
F1CE100	Development of Future AOC Contracting Plans	60	60	01AUG07*	23OCT07			
PROJECT MANAGEMENT								
F1CB070A	Hold FY07 IAP Workshop	3	0	20FEB07A	22FEB07A			
F1CB080A	Submit all missing information for DRAFT IAP	12	0	23FEB07A	06MAR07A			
F1CB120A	Resolve all comments to IAP, Approve AEDB-R Data	36	36	24MAY07	28JUN07			
F1CD600	Evaluation of Future Sewer Work	60	60	03SEP07	23NOV07			
F1CD100	Determine Cleanup Levels	60	60	10SEP07*	30NOV07			
F1CD200	Determination of Exposure Levels	60	60	10SEP07*	30NOV07			
F1CD300	Comparison of Cleanup Levels to Existing Data	60	60	10SEP07*	30NOV07			
F1CD400	Review of OHARNG Master Plan	60	60	10SEP07*	30NOV07			
F1CB816	Review Draft Project Management Plan	45	45	02OCT07	15NOV07			
F1CB130	FY08 IAP Scoping Meetings & Document Prep	60	60	05NOV07*	03JAN08			
F1CB826	Review Final Project Management Plan	45	45	08JAN08	21FEB08			

Data Date 15MAY07
Run Date 13JUN07 11:38

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EPA Two Year Look Ahead Report (July 1, 2006 - June 30, 2008)

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
UNDER SLAB SAMPLING (LL5, 7, 8, & 10)								
CONTRACT PROCUREMENT								
H1AA110	Develop SOW for Sub-Surface Sampling	50	50	15OCT07*	21DEC07			
PROJECT WORK PLAN								
H1AA120	Under Slab Sampling- Review Pre Draft Work Plan	45	0	14SEP06A	26SEP06A			
H1AA221	Under Slab Sampling- Lab Visit	0	0		12MAR07A			
H1AA223	Under Slab Sampling- Review Final Work Plan	43*	38*	10MAY07A	21JUN07			
FIELD SAMPLING								
H1AB100	Underslab Sampling - OEPA Oversight	85*	85*	09JUL07	102NOV07			
REPORT DEVELOPMENT								
H1AC120	Review Draft Underslab Sampling Report	45	45	10NOV07	24DEC07			
H1AC140	Review Final Underslab Sampling Report	45	45	21FEB08	05APR08			
RVAAP 14AOC's SITE CHARACTERIZATION PBC								
(RI) REMEDIAL INVESTIGATION								
RI Report Development								
S1AF600	Draft Final Report Review & Approval	138	0	31JUL06A	28DEC06A			
S1AF602	Final Report Review & Approval	45	0	31MAR07A	12APR07A			
RVAAP HIGH SITES - FY05 PBC								
(RI) OPEN DEMO AREA #2								
DATA EVALUATION / REPORTING								
A3BF118	Review Draft RI Addendum	45	0	18JUL06A	01SEP06A			
A3BF121	Review/Approval of Final RI Addendum	45	0	12SEP06A	20SEP06A			
(FS) RAMSDELL QUARRY LANDFILL								
DATA EVALUATION / REPORTING								
A1BF119	Army and OH EPA Review/Approval Final FS	45	0	11JUL06A	25AUG06A			
(FS) ERIE BURNING GROUNDS								
DATA EVALUATION / REPORTING								
A2BF118	Review Draft RI Addendum	45	0	18JUL06A	01SEP06A			
A2BF121	Review/Approval of Final RI Addendum	45	0	28SEP06A	05OCT06A			
(FS) LOAD LINE 12								
DATA EVALUATION / REPORTING								
A6BF119	Army and OH EPA Review/Approval Final FS	45	0	03JUL06A	15AUG06A			
(FS) FUZE-BOOSTER QUARRY POND LANDFILL								
DATA EVALUATION / REPORTING								
A7BF119	Army and OH EPA Review/Approval Final FS	48	0	20JUL06A	13SEP06A			
(FS) CENTRAL BURN PITS								
DATA EVALUATION / REPORTING								
B5BF119	Army and OH EPA Review Draft EE/CA	47	0	02DEC06A	28DEC06A			
B5BF120	Draft EE/CA Comment Resolution Meeting	5	0	20JAN07A	22JAN07A			
B5BF122	Army and OH EPA Review Final EE/CA	45	0	25JAN07A	30JAN07A			
B5BF123	Public Comment Period	30	0	07MAR07A	05APR07A			
B5BF129	Army and OH EPA Review Draft Action Memo	52*	2*	26MAR07A	16MAY07			
B5BF130	Draft Action Memo Comment Resolution Meeting	5	5	17MAY07	21MAY07			
B5BF132	Army and OH EPA Review Final Action Memo	45	45	15JUN07	30JUL07			
B5BF189	Final RI Addem Review/Approval	45	45	24JUN08	07AUG08			
(PP) RAMSDELL QUARRY LANDFILL								
PROJECT WORK PLAN								
A1ED122	Army and OH EPA Review Pre-Draft PP	42	0	07DEC06A	18JAN07A			
A1ED123	Comment Resolution Meeting Pre-Draft PP	1	0	30JAN07A	30JAN07A			
A1ED128	Army and OH EPA Review/Approval Final PP	45	0	05MAR07A	19MAR07A			
A1ED129	Public Comment Period	30	0	04APR07A	03MAY07A			
(PP) ERIE BURNING GROUNDS								
PROJECT WORK PLAN								
A2ED122	Army and OH EPA Review Pre-Draft PP	46	0	06OCT06A	16NOV06A			

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(July 1, 2006 - June 30, 2008)

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
A2ED123	Comment Resolution Meeting Pre-Draft PP	1	0	08DEC06A	08DEC06A			
A2ED125	Army and OH EPA Review/Approval Draft PP	36	0	13DEC06A	19JAN07A			
A2ED125A	Comment Resolution Meeting Draft PP	1	0	30JAN07A	30JAN07A			
A2ED128	Army and OH EPA Review/Approval Final PP	33	0	23FEB07A	27FEB07A			
A2ED129	Public Comment Period	30	0	07MAR07A	05APR07A			
(PP) OPEN DEMO AREA #2								
PROJECT WORK PLAN								
A3ED122	Army and OH EPA Review Pre-Draft PP	48	0	20SEP06A	24OCT06A			
A3ED123	Comment Resolution Meeting Pre-Draft PP	1	0	16NOV06A	16NOV06A			
A3ED125	Army and OH EPA Review/Approval Draft PP	36	0	13DEC06A	19JAN07A			
A3ED125A	Comment Resolution Meeting Draft PP	1	0	06FEB07A	06FEB07A			
A3ED128	Army and OH EPA Review/Approval Final PP	32	0	24FEB07A	27FEB07A			
A3ED129	Public Comment Period	30	0	07MAR07A	05APR07A			
(PP) LOAD LINE 12								
PROJECT WORK PLAN								
A6ED122	Army and OH EPA Review Pre-Draft PP	42	0	05SEP06A	11OCT06A			
A6ED123	Comment Resolution Meeting Pre-Draft PP	7	0	25OCT06A	24NOV06A			
A6ED125	Army and OH EPA Review/Approval Draft PP	41	0	08DEC06A	19JAN07A			
A6ED125A	Comment Resolution Meeting Draft PP	1	0	30JAN07A	30JAN07A			
A6ED128	Army and OH EPA Review/Approval Final PP	45	0	05MAR07A	19MAR07A			
A6ED129	Public Comment Period	30	0	04APR07A	03MAY07A			
(PP) FUZE-BOOSTER QUARRY POND LANDFILL								
PROJECT WORK PLAN								
A7ED122	Army and OH EPA Review Pre-Draft PP	45	0	27SEP06A	08NOV06A			
A7ED123	Comment Resolution Meeting Pre-Draft PP	1	0	08DEC06A	08DEC06A			
A7ED125	Army and OH EPA Review/Approval Draft PP	36	0	13DEC06A	19JAN07A			
A7ED125A	Comment Resolution Meeting Draft PP	1	0	30JAN07A	30JAN07A			
A7ED128	Army and OH EPA Review/Approval Final PP	45	0	05MAR07A	19MAR07A			
A7ED129	Public Comment Period	30	0	04APR07A	03MAY07A			
(ROD) RAMSDELL QUARRY LANDFILL								
PROJECT WORK PLAN								
A1FD136	Draft ROD Review/Approval	45	45	14AUG07	27SEP07			
A1FD137	Comment Resolution Meeting Draft ROD	11	11	28SEP07	12OCT07			
A1FD142	Army and OH EPA Review /Approval Final ROD	45	45	13NOV07	27DEC07			
(ROD) ERIE BURNING GROUNDS								
PROJECT WORK PLAN								
A2FD136	Draft ROD Review/Approval	45	45	07AUG07	20SEP07			
A2FD137	Comment Resolution Meeting Draft ROD	11	11	21SEP07	05OCT07			
A2FD142	Final ROD Review /Approval	45	45	06NOV07	20DEC07			
(ROD) OPEN DEMO AREA #2								
PROJECT WORK PLAN								
A3FD136	Draft ROD Review/Approval	45	45	07AUG07	20SEP07			
A3FD137	Comment Resolution Meeting Draft ROD	11	11	21SEP07	05OCT07			
A3FD142	Final ROD Review /Approval	45	45	06NOV07	20DEC07			
(ROD) LOAD LINE 12								
PROJECT WORK PLAN								
A6FD136	Draft ROD Review/Approval	45	45	14AUG07	27SEP07			
A6FD137	Comment Resolution Meeting Draft ROD	11	11	28SEP07	12OCT07			
A6FD142	Final ROD Review /Approval	45	45	13NOV07	27DEC07			
(ROD) FUZE-BOOSTER QUARRY POND LANDFILL								
PROJECT WORK PLAN								
A7FD136	Draft ROD Review/Approval	45	45	14AUG07	27SEP07			
A7FD137	Comment Resolution Meeting Draft ROD	11	11	28SEP07	12OCT07			
A7FD142	Final ROD Review /Approval	45	45	13NOV07	27DEC07			

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EPA Two Year Look Ahead Report

(July 1, 2006 - June 30, 2008)

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
(RD) RAMSDELL QUARRY LANDFILL								
PROJECT WORK PLAN								
A1GA146	Draft RD Review/Approval	45	45	02OCT07	15NOV07			
A1GA147	Comment Resolution Meeting Draft RD	11	11	16NOV07	30NOV07			
A1GA152	Final RD Review/Approval	45	45	03JAN08	16FEB08			
(RD) LOAD LINE 12								
PROJECT WORK PLAN								
A6GA146	Draft RD Review/Approval	45	45	02OCT07	15NOV07			
A6GA147	Comment Resolution Meeting Draft RD	11	11	16NOV07	30NOV07			
A6GA152	Final RD Review/Approval	45	45	03JAN08	16FEB08			
(RD) FUZE-BOOSTER QUARRY POND LANDFILL								
PROJECT WORK PLAN								
A7GA146	Draft RD Review/Approval	45	45	02OCT07	15NOV07			
A7GA147	Comment Resolution Meeting Draft RD	11	11	16NOV07	30NOV07			
A7GA152	Final RD Review/Approval	45	45	03JAN08	16FEB08			
(RD) CENTRAL BURN PITS								
PROJECT WORK PLAN								
B5GA146	Draft RA Work Plan Review/Approval	45	45	22JUN07	06AUG07			
B5GA147	Comment Resolution Meeting Draft RA Work Plan	11	11	07AUG07	21AUG07			
B5GA152	Final RA Work Plans Review/Approval	45	45	22SEP07	05NOV07			
(RA) RAMSDELL QUARRY LANDFILL								
PROJECT WORK PLAN								
A1YH156A	RQL RA - Contractor Oversight	30*	30*	18FEB08	28MAR08			
A1YH159	Review Draft Close Out Rpt	45	45	24MAY08	07JUL08			
A1YH160	Comment Resolution Meeting	11	11	08JUL08	22JUL08			
A1YH165	Review/Approval Final Close Out Rpt	45	45	23AUG08	06OCT08			
(RA) LOAD LINE 12								
REMEDIAL FIELD WORK								
A6YH156A	LL 12 RA - Contractor Oversight	30*	30*	18FEB08	28MAR08			
A6YH159	Review Draft Close Out Rpt	45	45	24MAY08	07JUL08			
A6YH160	Comment Resolution Meeting	11	11	08JUL08	22JUL08			
A6YH165	Review/Approval Final Close Out Rpt	45	45	23AUG08	06OCT08			
(RA) FUZE-BOOSTER QUARRY POND LANDFILL								
PROJECT WORK PLAN								
A7YH156A	FBQL RA - Contractor Oversight	30*	30*	18FEB08	28MAR08			
A7YH159	Review Draft Close Out Rpt	45	45	24MAY08	07JUL08			
A7YH160	Comment Resolution Meeting	11	11	08JUL08	22JUL08			
A7YH165	Review/Approval Final Close Out Rpt	45	45	23AUG08	06OCT08			
(IRA) CENTRAL BURN PITS								
PROJECT WORK PLAN								
B5YH156A	CBP IRA - Contractor Oversight	20*	20*	06NOV07	25NOV07			
B5YH159	Review Draft Close Out Rpt	45	45	05JAN08	18FEB08			
B5YH160	Comment Resolution Meeting	10	10	19FEB08	28FEB08			
B5YH165	Review/Approval Final Close Out Rpt	45	45	20MAR08	03MAY08			
RVAAP-01, (H) RAMSDELL QUARRY LANDFILL (P4)								
GENERAL ACTIVITIES								
DATA EVALUATION / REPORTING								
A1AF393	Review Draft P&A After Action Report	12	0	03AUG06A	14AUG06A			
A1AF396	Review Final P&A After Action Report	45	0	13SEP06A	19SEP06A			
RVAAP-02, (H) ERIE BURNING GROUNDS (P4)								
(LT) LAND TRANSFER DOCUMENTS								
PHASE / PROJECT CLOSURE								
A2KG120	Prepare/Review/Approve (REC)	10	10	08JAN08	21JAN08			
A2KG130	Review/Approve 1354	5	5	08JAN08	14JAN08			

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EPA Two Year Look Ahead Report (July 1, 2006 - June 30, 2008)

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
RVAAP-03, (H) OPEN DEMO AREA #1								
(PP) PROPOSED PLAN								
PHASE / PROJECT CLOSURE								
C3ED136	(PP) Prelim Draft Proposed Plan Review Comments	55	0	16FEB07A	23MAR07A			
C3ED150	(PP) Draft Proposed Plan Review & Comments	45	45	23MAY07	07JUL07			
C3ED156	(PP) CRT Conference Call	1	1	30JUL07	30JUL07			
C3ED180	(PP) Final Proposed Plan Review & Approval	45	45	22SEP07	05NOV07			
C3ED160	(PP) 30 Day PP Public Review/Comments	31	31	11OCT07	10NOV07			
C3ED165	(PP) Response To Public Comments	15	15	12NOV07	30NOV07			
(ROD) RECORD OF DECISION								
PHASE / PROJECT CLOSURE								
C3FD150	(ROD) Draft ROD Review & Approval	45	45	21JAN08	05MAR08			
C3FD165	(ROD) CRT Conference Call	1	1	27MAR08	27MAR08			
C3FD190	Army and OH EPA Review /Approval Final ROD	80	80	06MAY08	24JUL08			
RVAAP-04, (H) OPEN DEMO AREA #2 (P4)								
(LT) LAND TRANSFER DOCUMENTS								
DATA EVALUATION / REPORTING								
A3KG120	Prepare/Review/Approve (REC)	10	10	08JAN08	21JAN08			
A3KG130	Review/Approve 1354	5	5	08JAN08	14JAN08			
RVAAP-05, (M) WINKLEPECK BURNING GROUNDS (P1)								
LAND USE CONTROLS								
DATA EVALUATION / REPORTING								
F1MF141C	(PMP) OEPA Review Draft ROD/RD Language	45	45	02JUN07	17JUL07			
F1MF145	(PMP) Draft PMP Review & Approval	16	16	21JUN07	07JUL07			
F1MF143	(PMP) Draft Review Meeting (PMP)	1	1	21JUN07	21JUN07			
F1MF160	(PMP) Final PMP Review & Approval	5	5	13JUL07	17JUL07			
MISC. CONTRACTS								
Pad 70 & Asbestos Sampling								
A4GA100	Prepare SOW - Pad 70 & Asbestos Sampling	35*	9*	09APR07A	25MAY07			
WORK/FIELD PLANS								
PROJECT WORK PLAN								
A4AD400	OEPA Review Final Draft Project Management Plan	46	0	20OCT06A	06NOV06A			
A4AD501	OEPA Review Revised Final Draft Proj Mgmt Plan	46	0	17JAN07A	29JAN07A			
A4AD510	OEPA Final Project Management Plan Approval	45	0	26FEB07A	01MAR07A			
(ROD) RECORD OF DECISION								
PROJECT WORK PLAN								
A4FD150	(ROD) Draft ROD Review/Approval	45	45	24JUL07	06SEP07			
A4FD160	(ROD) Resolve Draft ROD Review Comments	5	5	07SEP07	13SEP07			
A4FD175	(ROD) Final ROD Review/Approval	45	45	07OCT07	20NOV07			
A4FD190	Army and OH EPA Review /Approval Final ROD	60	60	21NOV07	19JAN08			
(RD) REMEDIAL DESIGN								
PROJECT WORK PLAN								
A4GA020	(RD) OEPA Review Draft ESS	46	0	07NOV06A	29NOV06A			
A4GA040	(RD) Review Final ESS	45	45	26MAY07	10JUL07			
A4GA120	(RD) Draft Work Plan Review/Approval	45	45	15JAN08	28FEB08			
A4GA131	(RD) Final Work Plan Review/Approval	45	45	19APR08	02JUN08			
(RA) REMEDIAL ACTION								
PROJECT WORK PLAN								
A4IG000A	(RA) Remedial Action Contractor Oversight	85*	85*	04APR08	01AUG08			
(DEMO) DECON DEMO								
New Access Road								
A4ZE0007A	WBG Access Road Construction - OEPA Site Visits	180*	4*	11SEP06A	18MAY07			
Soil Pile Removal								
A4ZE0113A	Soil Disposal Removal - OEPA Site Visits	21*	0*	09OCT06A	06NOV06A			

Data Date 15MAY07
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IRP-RVAAP RAVENNA
1684
Update 05/15/07

EPA Two Year Look Ahead Report (July 1, 2006 - June 30, 2008)

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
RVAAP-08, (H) PBC - LOAD LINES 1 thru 4 (P2)								
LAND USE CONTROLS								
DATA EVALUATION / REPORTING								
A5MF145	(PMP) Draft PMP Review & Approval	21	21	20AUG07	09SEP07			
A5MF143	(PMP) Draft Review Meeting (PMP)	1	1	28AUG07	28AUG07			
A5MF160	(PMP) Final PMP Review & Approval	5	5	14SEP07	18SEP07			
LL 1 - PROPELLANT REMOVAL								
PROJECT WORK PLAN								
A5DE207	Review Draft Final Explosive Safety Submission	45	0	09JAN07A	02MAR07A			
REMEDIAL FIELD WORK								
A5DE300A	Propellant Removal - Contractor Oversight	35*	35*	31JUL07	17SEP07			
LL 2, 3, & 4 STRUCTURAL ANALYSIS								
DATA EVALUATION / REPORTING								
A5DF345	Review of Final SSM Report	45	0	28DEC06A	30JAN07A			
WORK/FIELD PLANS								
PROJECT WORK PLAN								
A5DD480	(WP) REVIEW REVISED DRAFT CONSTRUCTION	44	0	15AUG06A	11SEP06A			
A5DD60B	(WP) REVIEW FINAL FIELD PLANS (F)	46	0	16NOV06A	05DEC06A			
(ROD) RECORD OF DECISION								
PROJECT WORK PLAN								
A5FD170	(ROD) Review Draft ROD	128	0	25APR06A	18SEP06A			
A5FD220	(ROD) COMMENT RESPONSE MEETING	0	0		22SEP06A			
A5FD190	(ROD) Review Final ROD (OEPA)	45	0	10OCT06A	09NOV06A			
A5FD210A	OH EPA Signoff of Final ROD	45	45	26MAY07	10JUL07			
(RD) REMEDIAL DESIGN								
PROJECT WORK PLAN								
A5GD200	(RD) REVIEW DRAFT RD PLAN LL1, 2, 3, 4 (OEPA)	20	0	31JAN07A	08FEB07A			
A5GD700A	(RD) REVIEW FINAL RD PLAN LL 1,2,3,4 (OEPA)	45	45	26MAY07	10JUL07			
(RA) REMEDIAL ACTION								
RI /FS FIELD WORK								
A5YE100A	(IRA) IRA LL 1-4 - Contractor Oversight	91*	91*	31JUL07	13NOV07			
(CC) COMPLETION REPORTS								
PHASE / PROJECT CLOSURE								
A5IG150	Review Draft Site Closeout Report (OEPA)	45	45	01FEB08	16MAR08			
A5IG170	Review Final Site Closeout Report (OEPA)	45	45	01APR08	15MAY08			
RVAAP-09, LL2 DECON DEMO								
(DEMO) DECON DEMO								
DEMOLITION								
B7ZF220A	LL2 Decon Demo - OEPA Site Visits	70*	14*	26FEB07A	01JUN07			
RVAAP-10, LL3 DECON DEMO								
(DEMO) DECON DEMO								
DEMOLITION								
B8ZF220A	LL3 Decon Demo - OEPA Site Visits	118*	58*	20FEB07A	03AUG07			
RVAAP-11, LL4 DECON DEMO								
(DEMO) DECON DEMO								
DEMOLITION								
B9ZF220A	LL4 Decon Demo - OEPA Site Visits	231*	113*	28NOV06A	19OCT07			
RVAAP-28, (L) MUSTARD AGENT BURIAL SITE								
(RI) REMEDIAL INVESTIGATION								
DATA EVALUATION / REPORTING								
A8AF556	(RI) Geo-Physical SOW Review/Approval	10	10	26MAY07	04JUN07			
A8AF557F	(RI) Review Draft Geo-Physical Analysis WP	45	45	25AUG07	08OCT07			

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Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
A8AF557I	(RI) Review Final Geo-Physical Analysis WP	45	45	28OCT07	11DEC07			
A8AF650	(RI) Review Risk Management Report	45	45	24JAN08	08MAR08			
A8AF700	(RI) Risk Management Report RTC Telecom	1	1	18MAR08	18MAR08			
(PP) PROPOSED PLAN								
PROJECT WORK PLAN								
A8ED120	Review Draft Proposed Plan	48	48	18JUL08	03SEP08			
A8ED125	CRT Conference Call	1	1	11SEP08	11SEP08			
A8ED190	PP Public Review And Comments	30	30	10OCT08	08NOV08			
A8ED180	Final Proposed Plan Review & Approval	45	45	10OCT08	23NOV08			
RVAAP-32, (M) 40 MM FIRING RANGE								
ANALYTICAL EVALUATION								
DATA EVALUATION / REPORTING								
D4AF352	Review Reissued Draft Risk Analytical Report	85	0	31MAR06A	17AUG06A			
D4AF352F	Review Draft Risk Report	45	45	12OCT07	25NOV07			
D4AF354	CRT Conference Call	1	1	17DEC07	17DEC07			
D4AF356	40MM Risk Analysis Review/Approval	45	45	05JAN08	18FEB08			
(PP) PROPOSED PLAN								
PHASE / PROJECT CLOSURE								
D4ED145	(PP) Draft Proposed Plan Review / Approval	45	45	21MAY08	04JUL08			
D4ED146	(PP) Draft RTC/Meeting	1	1	21JUL08	21JUL08			
D4ED160	(PP) 30 Day PP Public Review/Comments	30	30	29JUL08	27AUG08			
D4ED180	(PP) Final Proposed Plan Review & Approval	45	45	28SEP08	11NOV08			
RVAAP-33, (M) LOAD LINE 6 (P5)								
(RI) REMEDIAL INVESTIGATION								
DATA EVALUATION / REPORTING								
B1AF449	(RI) Draft Report Review	56*	0*	06NOV06A	11DEC06A			
B1AF449A	(RI) Draft Report (Re-issue #1) Review	56*	0*	06MAR07A	22MAR07A			
B1AF450	(RI) Draft Report (Re-issue #2) Review	45	45	06JUN07	21JUL07			
B1AF500	(RI) Final Report RTC/Meeting	12	12	22JUL07	02AUG07			
B1AF550	(RI) Final Report Review & Approval	45	45	22AUG07	05OCT07			
RVAAP-34, (L) SAND CREEK DISPOSAL LANDFILL (P3)								
ANALYTICAL EVALUATION								
DATA EVALUATION / REPORTING								
B2AF331A	OEPA Review RTC on Prelim Draft RTC	1	0	30JAN06A	09JAN07A			
(RI) REMEDIAL INVESTIGATION								
DATA EVALUATION / REPORTING								
B2AF450	(RI) Draft Report Review	45	45	18JUL08	31AUG08			
B2AF451	(RI) Draft Report Comment Resolution Meeting	1	1	22SEP08	22SEP08			
B2AF550	(RI) Final Report Review & Approval	45	45	21OCT08	04DEC08			
RVAAP-42, (M) LOAD LINE 9 (P5)								
(RI) REMEDIAL INVESTIGATION								
DATA EVALUATION / REPORTING								
B3AF449	(RI) Draft Report Review	57	0	06NOV06A	11DEC06A			
B3AF449A	(RI) Draft Report Review (Re-issue #1)	57	0	06MAR07A	22MAR07A			
B3AF450	(RI) Draft Report (Re-issue #2) Review	45	45	29MAY07	13JUL07			
B3AF500	(RI) Final Report RTC/Meeting	12	12	14JUL07	25JUL07			
B3AF550	(RI) Final Report Review & Approval	45	45	14AUG07	27SEP07			
RVAAP-51, (L) PARIS WINDHAM DUMP (P3)								
(RI) REMEDIAL INVESTIGATION								
DATA EVALUATION / REPORTING								
B6AF450	(RI) Draft Report Review	45	45	18JUL08	31AUG08			
B6AF451	(RI) Draft Report Comment Resolution Meeting	1	1	22SEP08	22SEP08			
B6AF550	(RI) Final Report Review & Approval	45	45	21OCT08	04DEC08			

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Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	2006	2007	2008
MMRP FACILITY WIDE ACTIVITIES								
MMRP SI - SITE INVESTIGATION								
(SI) SITE INVESTIGATION								
W2ZE0027	MMRP SI - Review Draft Stakeholder Work Plan	45*	28*	28APR07A	11JUN07			
W2ZE0031	MMRP SI - Review Final Stakeholder Work Plan	45	45	14JUL07	27AUG07			
W2ZE0033	MMRP SI - Final Approval of SI Change-out Sheets	16	16	13SEP07	28SEP07			
W1ZE0035A	MMRP SI - OEPA Oversight/Split Sampling	25*	25*	15OCT07	16NOV07			
W2ZE0043	MMRP SI - Review Draft Stakeholder Report	45	45	26JAN08	10MAR08			
W2ZE0045	MMRP SI - Review Final Stakeholder Report	35	35	05APR08	09MAY08			
MMRP GENERAL ADMIN								
W2ZF100	MMRP - REVIEW MMRP SCOPES OF WORK	60	60	31MAY08	29JUL08			
W2ZF200	MMRP - Review Rocket Ridge MMRP Scope of Work	45	45	31MAY08	14JUL08			
LOAD LINE 8 & 10 DECON DEMO								
(DEMO) DECON DEMO								
LL 8 DECON & DEMO								
W1ZE0020A	LL8 Decon Demo - OEPA Site Visits	220*	9*	24JUL06A	25MAY07			
LL10 DECON & DEMO								
W1ZE0027A	LL10 Decon Demo - OEPA Site Visits	252*	9*	08JUN06A	25MAY07			
LOAD LINES 5 AND 7 DECON DEMO								
(DEMO) DECON DEMO								
LOAD LINE 5 DECON DEMO								
W3ZE0026A	LL5 Decon Demo - OEPA Site Visits	162*	0*	18JUL06A	28FEB07A			
LOAD LINE 7 DECON DEMO								
W3ZE0034A	LL 5, 9, & 11 Decon Demo - OEPA Site Visits	68*	0*	06JUN06A	07SEP06A			
W3ZE0018A	LL7 Decon Demo - OEPA Site Visits	259*	24*	20JUN06A	15JUN07			
DISPOSAL OF STORED MEC								
(DEMO) DECON DEMO								
PROJECT WORK PLAN								
W2ZE0109	MEC Disposal Review Draft WP & SSHP	23	0	12DEC06A	11JAN07A			
W2ZE0111	MEC Disposal Review Final WP & SSHP	27	0	21FEB07A	27FEB07A			
DECON & DEMO								
W2ZE0113A	MEC Disposal Removal - OEPA Site Visits	65*	54*	30APR07A	27JUL07			
DECON DEMO FINAL REPORT								
W2ZE0119	MEC Disposal Review Prelim Draft After Action	34	34	27AUG07	11OCT07			
W2ZE0120	MEC Disposal RTC/Issue Draft After Action Rpt	12	12	12OCT07	29OCT07			
W2ZE0121	MEC Disposal Review Draft After Action Rpt	34	34	30OCT07	14DEC07			
W2ZE0122	MEC Disposal RTC/Issue Final After Action Rpt	12	12	17DEC07	01JAN08			
W2ZE0123	MEC Disposal Review Final After Action Rpt	34	34	02JAN08	18FEB08			
Explosive Evaluation of Sewers								
MANAGEMENT/COORDINATION PLANS								
PROJECT WORK PLAN								
W4ZE0015	Review & Approval of Work Plan	34	0	01NOV06A	18DEC06A			
W4ZE0035	Review & Approval of SSHP	31	0	06NOV06A	04JAN07A			
W4ZE0045	Review & Approval of Draft Report	22*	0*	01MAR07A	30MAR07A			
W4ZE0065A	OEPA Review of Final Report	45	45	02JUL07*	31AUG07			
W4ZE0065B	OEPA Review of Final WP Report	45	45	02JUL07*	31AUG07			
W4ZE0065C	OEPA Review of Final CERL Report	45	45	02JUL07*	31AUG07			
DLA Route 80 Tank Farm/East Ore Yard								
(DEMO) DECON DEMO								
PROJECT WORK PLAN								
E1CD151	Rt 80 Tank Farm - Draft Work Plan RTC Review	46	0	02MAR07A	03APR07A			

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GEORGE ROAD SEWAGE TREATMENT PLANT								
WORK/FIELD PLANS								
SITE INVESTIGATION								
W5ZE110	Review & Approval of Draft WP	45	45	25AUG07	08OCT07			
W5ZE125	Hold Draft WP RTC Meeting	1	1	16NOV07	16NOV07			
W5ZE135	Review & Approval of Final WP	45	45	11DEC07	24JAN08			
W2ZF0043	Review Draft SI Report	45	45	23MAY08	06JUL08			
W2ZF0045	Review Final SI Report	45	45	01AUG08	14SEP08			

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State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

April 12, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
14 RVAAP AOCS – FINAL SITE
CHARACTERIZATION REPORT

Mr. Irving Venger
Environmental Program Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled, "Final Report for the Characterization of 14 RVAAP AOCS at the Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated March 29, 2007 and received at Ohio EPA on March 30, 2007, was prepared for the U.S. Army Corps of Engineers (USACE) Louisville District, by MKM Engineers, Inc.

The revised document has been compared to the draft document and agreed-upon RTCs, all Ohio EPA requested changes and corrections have been made, and the document is approved. Please coordinate with all other stakeholders, to ensure that their comments have been incorporated.

If you have any questions or concerns, please do not hesitate to contact me at (330) 963-1249.

Sincerely,

Andrew C. Kocher
Site Coordinator
Division of Emergency and Remedial Response

ACK/kss

cc: Bonnie Buthker, Ohio EPA, OFFO, SWDO
Eileen Mohr, Ohio EPA, DERR, NEDO
MAJ Ed Meade, OHARNG
Mark Krivansky, Army Env. Command
Stan Levenger, MKM Engineers, Inc.

John Jent, USACE Louisville
Glen Beckham, USACE Louisville
Angela Schmidt, USACE Louisville
Katie Elgin, OHARNG

ec: Mike Eberle, Ohio EPA, DERR, NEDO
Todd Fisher, Ohio EPA, DERR, NEDO



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Ted Strickland, Governor
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Chris Korleski, Director

June 07, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
DRAFT MMRP SI WORKPLAN

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

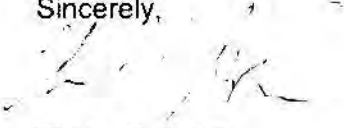
Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Stakeholder Draft, Work Plan, Military Munitions Response Program, Ravenna Army Ammunition Plant, Ohio." This document, dated April 2007 and received at Ohio EPA, NEDO, on April 27, 2007, was prepared by engineering-environmental Management, Inc. for the U.S. Army Corps of Engineers (USACE) – Omaha District, under contract number DACA-63-03-D0009.

This document contains the workplan, the field sampling plan, the quality assurance project plan, and the site-specific health and safety plan. Ohio EPA's comments on this document are enclosed.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,


Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

enclosure

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Jerome Stolinski, USACA Omaha
Glen Beckham, USACE Louisville
Phil Werner, e2M

Mary Ellen Maly, AEC
Mark Krivansky, AEC
Courtney Ingersoll, e2M

ec: Mike Eberle, Ohio EPA, NEDO, DERR

Todd Fisher, Ohio EPA, NEDO, DERR

Stakeholder Draft, Workplan, Military Munitions Response Program, Ravenna Army Ammunition Plant, Ravenna, Ohio EPA
Reviewer: Eileen T. Mohr, Ohio EPA
Date: June 07, 2007

Cmt #	Page #/ Line #	Comment	Recommendation	Response
1	WP General	URS is the RAB TAPP provider and will be providing comments on this document.	TAPP provider comments need to be addressed. Please contact URS if you have not received comments by June 11, 2007.	
2	WP General	On 03/23/07, e2M provided a draft sampling chart to Ohio EPA for review and comment. On 03/28/07, Ohio EPA provided comments on the draft sampling chart. Several of Ohio EPA comments on this document reflect back to the previous chart and Agency comments. (Many of our comments were incorporated into this document, others were not. For example, the number of proposed samples was decreased in the text of this report with no corresponding explanation.)	Please cross-reference the chart and comments and make adjustments to this document as needed. Please indicate when the RTCs to Ohio EPA's 03/28/07 comments will be received.	
3	WP General	There is no acronym list in the beginning of this WP.	Add an acronym list.	
4	WP General	Thanks for numbering the lines in the workplan, as it really helps in the review and comment process.	No response needed.	
5	WP 2-1/29-30	The text indicates that WBG was "dismissed," since it is not MMRP eligible.	Please add detail to the revised report that more clearly explains this statement (i.e., WBG is now defined as an operational range).	
6	WP After 2-1/31	The text does not address the ODA1 area.	Please provide additional text that indicates that the OHARNG is attempting to have ODA1 added to the list of MMRP sites, as this AOC never should have been removed from the MMRP listing.	

7	WP 2-7/9-10	The text in this section indicates that "stakeholders" also agreed to the changing of the RQL MRS footprint.	Given that the text also identifies USACE, AEC, and the installation, remove "stakeholders" and insert Ohio EPA and OHARNG in its place.	
8	WP 2-8/12	The text indicates that the samples will be analyzed for metals.	Specify TAL metals in the revised text.	
9	WP 2-8/14	The text indicates that the intent is to establish the presence or absence of "elevated" levels of MC.	How is "elevated" defined? Elevated compared to what standard(s)?	
10	WP 2-19/19-21	The text indicates that some of the propellant has been removed at LL1 as part of a PBC contract.	This is not correct. It has been confirmed with Shaw that the propellant removal has not yet occurred. Revise the text.	
11	WP 2-20/1	The text indicates that the samples will be analyzed for propellants.	Please clarify why samples will not be collected for TAL metals and explosives. Will existing data be used to help populate the MRS-PP?	
12	WP 2-21/11-13	It is my recollection that foundations remain at LL12 at a depth of 1 foot bgs.	Please confirm with the installation and revise the text as necessary.	
13	WP 2-29/25-26	This section discusses sampling at LNWBG.	A. Please add propellants to the list of analytes; B. Provide justification that one discrete sample in this area will be enough to accurately populate the MRS-PP; C. The earlier chart (03/23/07) indicated that a MI sample would be obtained and this text indicates that the proposed sample is now discrete. Provide an explanation; D. The earlier chart (03/23/07) indicated that 4 samples were to be collected and now this number is reduced to 1. Provide an explanation and justification for this reduction.	
14	WP 2-34/29	The text indicates that the samples will be analyzed for metals.	Specify TAL metals in the revised text.	

15	WP 2-40/19	The text indicates that magnetometer assisted surveys will be conducted in "pre-determined" areas within the MRS.	Please provide an explanation for the basis on which these areas were "pre-determined."	
16	WP 2-42/2-5	The previous chart (03/23/07) indicated that 10% of the open area around Block D Igloo would also have a UXO survey conducted. (~6 acres)	Provide an explanation for the change in strategy and justify that the current approach will give us the information needed to make an informed decision.	
17	WP 2-42/16	The text discusses the soil sample to be obtained at Block D Igloo.	A. Add propellants to the constituent list; B. Specify TAL metals.	
18	WP 2-43/29	The text discusses the soil sample to be obtained at Block D Igloo - TD.	A. Add propellants to the constituent list; B. Specify TAL metals.	
19	WP 2-44/16	The previous chart (03/23/07) indicated that 4 MI samples would be collected at WW#4, and this text indicates that 1 discrete sample is now proposed.	Provide an explanation for the change in strategy and justify that the current approach will give us the information needed to populate the MRS-PP and make an informed decision about future actions.	
20	WP 2-44/16	The text discusses the soil sample to be obtained at WW#4.	A. Add propellants to the constituent list; B. Specify TAL metals.	
21	WP 2-45/23	The text specifies the soil samples to be collected at Group 8 MRS.	Specify TAL metals.	
22	WP 2-46/31	The text specifies the soil samples to be collected at Old Hay Field MRS MRS.	Specify TAL metals.	
23	WP Table 2 pgs 3-2 – 3-3	Refer back to previous Ohio EPA comments on the type of MEC surveys and number of MC samples and analytes of interest. This applies to both the 03/28/07 response to the draft table and comments on this draft workplan.	Make any necessary adjustments to this table.	

24	WP 3-4/4	The text indicates that one of the potential outcomes of the proposed field work is to determine whether or not a MRS can receive a NFA. This is going to be very difficult, given the minimal amount of samples being proposed.	Will sufficient data be obtained to be able to make a determination such as this? What if an AOC receives a NFA, and later on additional problems/issues are discovered. Will the MMRP program re-open an AOC for additional investigation?	
25	WP 3-4/22-26	This section discusses the use of a handheld magnetic gradiometer and/or metal detector in very general terms.	Please add information to the revised text that discusses the effective depths of the proposed instrumentation; impacts of UXO type, size, orientation, soil types, etc., on the ability to detect the various munitions that may exist at the RVAAP.	
26	WP 3-5/18-19	The text references the use of a GPS.	Please add detail to the text regarding the type and accuracy of the proposed instrumentation.	
27	WP 3-5/23-24	The text indicates that inert munitions will be counted and reported on a per area basis.	What criteria will be used to determine that the munitions are inert?	
28	WP Table 3	Proposed UXO survey activities.	Add in a footnote as to how it was determined which AOCs would have a magnetometer assisted survey.	
29	WP Table 3	RQL	Provide additional details on how it was determined that a line abreast survey would be conducted in the NE quadrant of the southern quarry and a meandering path survey in the remainder of the southern quarry.	
30	WP Table 3	EBG	Add in the rationale section that the flooded areas are clearly slated for additional investigative activities.	
31	WP Table 3	FBQ	Provide clarification as to why a meandering path survey has been selected.	

32	WP Table 3	40 mm	Provide clarification as to why a meandering path survey has been selected.	
33	WP Table 3	Firestone Test Facility	Provide clarification as to why a meandering path survey has been selected.	
34	WP Table 3	Sand Creek Dump	Provide clarification as to why a meandering path survey has been selected.	
35	WP Table 3	Block D TD	Provide clarification as to why a meandering path survey has been selected. Which will provide the general public with the greater sense of comfort?	
36	WP Table 3	WW#4	Provide additional details as to how it was determined that a portion of the AOC would have a line abreast survey and the remainder would have a meandering path survey.	
37	WP 3-9/2	The text indicates that analytical data will be screened against the Region 9 residential PRGs. Please note that at RVAAP, for carcinogenic analytes, a straight comparison is made, but for non-cancer, the analyte is screened at 1/10 the residential PRG.	Adjust the text accordingly.	
38	WP 3-9/13-17	The text prior to this section indicates that one of the reasons that MI samples will be taken is to provide legally defensible data. The implication is that discrete sampling may not provide legally defensible data.	Please revise the text to indicate that legally defensible data can be obtained from both sampling techniques.	
39	WP 3-9/26	Should "based" be "biased?"	Please clarify.	

40	WP Table 4	Please add a footnote to the table regarding the use of Region 9 residential PRGs.	Specifically, at RVAAP, for carcinogenic analytes a straight comparison is made, but for non-cancer, the analyte is screened at 1/10 the residential PRG.	
41	WP Table 4	Please cross-reference previous comments regarding proposed number of samples and analytes at the various AOCs. For example, the previous 03/23/07 table had: more (MI) samples at WW#4; more (MI) samples at LNWBG; Ohio EPA had recommended adding propellant analyses to Block D and Block D – TD; Ohio EPA had recommended adding explosives and TAL metals to the sample at LL1; etc.	Adjust the table accordingly.	
42	WP Table 5	Please cross-reference previous comments regarding proposed number of samples and analytes at the various AOCs. This means cross-referencing 03/28/07 Ohio EPA comments; comments on the text of this workplan; and, comments on the tables in this workplan.	Adjust the table accordingly.	
43	WP Table 5	There are no contingency samples listed in the sample summary table.	Please scope in contingency samples. It will be cheaper to do this now rather than running into unexpected field conditions and have to re-mobilize.	
44	WP 3-11/12	The text indicates that the DQOs are based upon the Region 9 residential PRGs.	Please note that at RVAAP, for carcinogenic analytes, a straight comparison is made, but for non-cancer, the analyte is screened at 1/10 the residential PRG.	
45	WP 4-1/21	The text has a final SI report date of May 30, 2008.	The Order milestone date for this report is April 08, 2008. Any final change-out sheets are due May 30, 2008. Please ensure that the milestone date is achieved.	

46	WP Table 6	Change title of Eileen T. Mohr to Project Manager.	Make requested change.	
47	WP Table 6	Change title of Irving Venger to Acting Facility Manager.	Make requested change.	
48	WP 4-3/3	Change text to read: "...Federal, State and local rules, laws, and regulations..."	Make requested change.	
49	WP 5-1/1	The SI report will have a preliminary-draft, draft, and final iterations.	Add the three iterations to the revised text.	
50	SAP General	URS is the RAB TAPP provider and will be providing comments on this document.	TAPP provider comments need to be addressed. Please contact URS if you have not received comments by June 11, 2007.	
51	SAP General	On 03/23/07, e2M provided a draft sampling chart to Ohio EPA for review and comment. On 03/28/07, Ohio EPA provided comments on the draft sampling chart. Several of Ohio EPA comments on this document reflect back to the previous chart and Agency comments. (Many of our comments were incorporated into this document, others were not. For example, the number of proposed samples was decreased in the text of this report with no corresponding explanation; there is no rationale for switching from MI to discrete samples, etc..)	Please cross-reference the chart and comments and make adjustments to this document as needed. Please indicate when the RTCs to Ohio EPA's 03/28/07 comments will be received.	
52	SAP General	There is no acronym list in the beginning of this SAP.	Add an acronym list.	
53	SAP 1/12-13	Any changes to the field plan/activities also need prior approval from Ohio EPA.	Revise the text to reflect this comment.	
54	SAP 6/5	The text indicates that the samples will be analyzed for metals.	Specify TAL metals in the revised text.	

55	SAP 6/15-16	The text indicates that analytical data will be screened against the Region 9 residential PRGs. Please note that at RVAAP, for carcinogenic analytes, a straight comparison is made, but for non-cancer, the analyte is screened at 1/10 the residential PRG.	Adjust the text accordingly.	
56	SAP Table 1	Cross-reference previous comments on WP Table 3.	Make any necessary corrections to this table.	
57	SAP Table 2	Cross-reference previous comments on WP Table 4.	Make any necessary corrections to this table.	
58	SAP Table 3	Cross-reference previous comments on WP Table 5.	Make any necessary corrections to this table.	
59	SAP 12/1-16	The text in this section is confusing. Is the intent to indicate that for the 8 AOCs listed that we know there will need to be additional investigation under the MMRP program?	If so, can this explicitly be stated? Additionally, given the lack of sufficient samples at (for example) the WW#4 Dump, additional work will probably need to be conducted just because of a MC data gap.	
60	SAP Table 4	The table indicates that some of the propellant has been removed at LL1.	This is not correct. It has been confirmed with Shaw that the propellant removal has not yet occurred. Revise the text.	
61	SAP Table 4	The table indicates that at FBQ, that MC is being handled under the IRP.	Please confirm that sufficient sediment samples have been obtained from the 3 ponds as part of the IRP work.	
62	SAP Table 4	The table indicates that at the Firestone Test Facility, that MC is being handled under the IRP.	Please confirm that sufficient sediment samples have been obtained from the test pond as part of the IRP work.	
63	SAP Table 4	At WW#4, the text indicates that the presence of MC is not fully known.	Please revise the text to indicate that the presence of MC is not known at all	
64	SAP Table 4	At Block D-Igloo, the text indicates that the presence of MEC and MC is not fully known.	Please revise the text to indicate that the presence of MEC and MC is not known at all	
65	SAP Table 4	At Block D-Igloo TD, the text indicates that the presence of MEC and MC is not fully known.	Please revise the text to indicate that the presence of MEC and MC is not known at all	

66	SAP Table 4	At Group 8 MRS, the text indicates that the presence of MEC and MC is not fully known.	Please revise the text to indicate that the presence of MEC and MC is not known at all	
67	SAP Table 4	At Group the Old Hay Field MRS, the text indicates that the presence of MEC and MC is not fully known.	Please revise the text to indicate that the presence of MEC and MC is not known at all	
68	SAP Sections 3.2.1 through 3.2.18	Please cross-reference previous Ohio EPA comments on MEC survey types and number/types of MC samples, whether enough data will be collected (MC and MEC) to make the necessary decisions to go forward, prepare a NFA, etc.	Please make necessary revisions to the SAP.	
69	SAP 15/23	The text indicates that the samples will be analyzed for metals.	Specify TAL metals in the revised text.	
70	SAP 21/13	The text discusses the soil sample to be obtained at Load Line 1.	A. Add explosives to the constituent list. B. Specify TAL metals.	
71	SAP 25/15	The text indicates that the LNWBG sample will be analyzed for metals.	A. Specify TAL metals in the revised text. B. Add propellants.	
72	SAP 28/17	Text revision requested.	Revise the text to read: "Therefore, UXO surveys of the submerged portion of the pond will not be collected during this SI effort."	
73	SAP 28/22	The text indicates that the sample at Firestone Test Facility will be analyzed for metals.	Specify TAL metals in the revised text.	
74	SAP 36/8-9	At Atlas Scrap Yard, the text indicates that the areas with high grass and vegetation will be avoided due to safety concerns (obstructed ground sight).	When will these areas be addressed, and how will it be memorialized that these areas still need to have an investigation conducted?	

75	SAP 36/17-18	This portion of the text cross references Figure 6. In looking at this figure and this page (lines 8-9), it is clear that the areas with high grass and vegetation will be avoided due to safety concerns (obstructed ground sight).	When will these areas be addressed, and how will it be memorialized that these areas still need to have an investigation conducted?	
76	SAP 37/6	The text for Block D Igloo indicates that 5 locations where debris was found will have a meandering path magnetometer assisted UXO survey.	How were these locations chosen? (There are more than 5 locations where debris from the March 24, 1943 explosion was found.)	
77	SAP 37/17	The text indicates that the Block D Igloo sample will be analyzed for metals.	A. Specify TAL metals in the revised text. B. Add propellants.	
78	SAP 40/18-20	The text discusses the collection of a sample in an area where debris was found and mapped at Block D Igloo TD.	Please clarify how the location of this debris was mapped. How accurate is the mapped location, and what is the chance that this area can be found again?	
79	SAP 42/17	The text indicates that the Group 8 MRS sample will be analyzed for metals.	Specify TAL metals in the revised text.	
80	SAP Figure 14	The figure divides Group 8 MRS into 4 sample areas.	In the associated text, please indicate the approximate square footage of each of these sample areas.	
81	SAP 44/14	The text indicates that the Old Hay Field MRS sample will be analyzed for metals.	Specify TAL metals in the revised text.	
82	SAP 46/11-12	The text references the use of a GPS.	Please add detail to the text regarding the type and accuracy of the proposed instrumentation.	
83	SAP 46/20	Text revision requested.	Revise text to read: "...sampling grid) will be used..."	
84	SAP 46/21	The text indicates that all "significant" inert MEC or scrap will have digital photos taken.	What constitutes "significant?"	

85	SAP 46/22-23	The text indicates that inert munitions will be counted and reported on a per area basis.	What criteria will be used to determine that the munitions are inert? Will the areas be mapped?	
86	SAP 47/30 – 47/13	This section discusses the use of a handheld magnetic gradiometer and/or metal detector in very general terms.	Please add information to the revised text that discusses the effective depths of the proposed instrumentation; impacts of UXO type, size, orientation, soil types, etc., on the ability to detect the various munitions that may exist at the RVAAP.	
87	SAP 47/17	Text revision requested.	Please indicate that tailgate safety briefings will be conducted on a daily basis. (And more frequently, if needed, based upon changed conditions or some other key factor.)	
88	SAP 47/21	Clarification requested.	Will the location of munitions debris be documented as part of this initiative?	
89	SAP 48/2-3	The text indicates that the magnetometer and metal detectors will be swept across known selected items to demonstrate consistent effectiveness.	Please provide additional details. Is this a geophysical prove-out area? Where will it be located? Will various munitions that might be expected at RVAAP be buried at different depths and orientations (etc.) to determine effectiveness of the instrumentation?	
90	SAP 49 after line 6	Text addition requested.	Please insert text that indicates that the acting facility manager and contractor will be responsible for following Ohio EPA's MEC notification procedure.	

91	SAP 49/7	The text indicates that surface soil samples will be collected at a depth of 0-6" bgs.	Additional discussion of this depth interval is needed. At RVAAP, the surface soil interval is 0-1' bgs for both discrete and MI sampling. Additionally, data obtained from this initiative will be used to populate the MRRS-PP. Given that (with few exceptions) the previous interval has been 0-1' bgs, will this cause any disconnect?	
92	SAP 49/13-14	Please cross-reference previous Ohio EPA comments on the use of discrete vs. MI samples.	(Some previously identified MI samples are now discrete, and it is not clear how/why this switch was made.)	
93	SAP 50/7-13	There seems to be a combination of MI and (explosives) discrete sampling techniques in this section.	At RVAAP, for MI samples, a specified area has 30 sub-samples collected. These are all randomly selected. For discrete samples for explosives, there is a "composite" sample obtained from the 3 points of an equilateral triangle. The text in this section combines the 2 techniques, which is not standard for RVAAP. Please revise to follow RVAAP procedures.	
94	SAP 50/15-16	This section of the text discusses how to split MI samples.	Up to this point in time, the MI samples have been processed in the field. After drying, grinding, sieving, etc., the samples have been split. With the lab now preparing the samples for this initiative, we need to have a discussion on how to handle splits.	

95	SAP 50/16	The text indicates that surface soil samples will be collected at a depth of 0-6" bgs.	Additional discussion of this depth interval is needed. At RVAAP, the surface soil interval is 0-1' bgs for both discrete and MI sampling. Additionally, data obtained from this initiative will be used to populate the MRRS-PP. Given that (with few exceptions) the previous interval has been 0-1' bgs, will this cause any disconnect?	
96	SAP 51/9	The text indicates that surface soil samples will be collected at a depth of 0-6" bgs.	Additional discussion of this depth interval is needed. At RVAAP, the surface soil interval is 0-1' bgs for both discrete and MI sampling. Additionally, data obtained from this initiative will be used to populate the MRRS-PP. Given that (with few exceptions) the previous interval has been 0-1' bgs, will this cause any disconnect?	
97	SAP 51/after 10-13	This portion of the text discusses the homogenization and splitting of discrete samples.	Clarification requested. Will discrete samples be undergoing the drying, grinding, and sieving process like the MI samples are? If so, we may want to re-think when the samples are split.	
98	SAP 51/15-16	Clarification requested.	Are the duplicates that are being prepared blind to the lab?	

99	SAP 51/19	The text indicates that any excess material will be used as backfill and returned to the sample holes.	This is not correct. Excess materials obtained during this sampling effort must be treated as IDW – i.e., containerized, characterized and disposed of in accordance with all applicable State, Federal, and local rules, laws, and regulations. Only in the event that all analytes are below established Site background (and analytical results are approved by Ohio EPA), would we consider allowing the materials to be returned to the Site.	
100	SAP 51/23	The text references the use of a GPS.	Please add detail to the text regarding the accuracy of the proposed instrumentation.	
101	SAP Table 7	For discrete samples, in the event that the lab will be processing them like MI samples, you may need to re-think the volume of material that the lab would need.	Just a FYI. Can discuss this along with the related questions.	
102	SAP Section 3.8	Addition requested at an appropriate place on page 53 or 54.	Please ensure that a temperature blank is added to each cooler.	
103	SAP 54/13-22	Text revision requested.	Revise the decon procedure, so that it mirrors the decon procedure in the RVAAP facility-wide documents. All decon fluids must be containerized, characterized, and disposed of off-site in accordance with all applicable State, Federal, and local rules, laws, and regulations.	
104	SAP 59/after 4	Text addition requested.	If sample coolers are shipped, please indicate that the FedEx/UPS/DHL (etc.) waybill be used as part of the COC. Copies of these forms should be attached to the COC forms, and should appear in the SI report (in the appropriate appendix).	

105	SAP 60/8	Text addition requested.	Please ensure that a temperature blank is added to each cooler.	
106	SAP 61/3-5	The text indicates that any excess material will be returned to the collection site.	This is not correct. Excess materials obtained during this sampling effort must be treated as IDW – i.e., containerized, characterized, and disposed of in accordance with all applicable State, Federal, and local rules, laws, and regulations. Only in the event that all analytes are below established Site background (and analytical results are approved by Ohio EPA), would we consider allowing the materials to be returned to the Site.	
107	QAPP General	Lines should be numbered for ease of review and comment.	Please number the lines in future submissions.	
108	QAPP, General	URS is the RAB TAPP provider and will be providing comments on this document.	TAPP provider comments need to be addressed. Please contact URS if you have not received comments by June 11, 2007.	
109	QAPP, general	The fact that a “generic” QAPP was crafted that covers numerous installations has made it very difficult to cull out site-specific information. Additionally, information found in the WP/SAP that one would think would be more clear in the QAPP, is not.	Ohio EPA expects that all data generated will be of the highest quality with the achievement of the lowest possible detection levels. Samples will need to be analyzed for the appropriate analytes utilizing the appropriate methodologies, otherwise there is the strong possibility that after this effort that data gaps will remain.	
110	QAPP, section 2, page 3	Text revision requested.	Revise text in the second paragraph to read: “... with current State, Federal, and local rules, laws, and regulations.”	

111	QAPP, section 2, page 4	The text discusses the potential for various lab methods to be utilized. However, in cross-referencing with the workplan, there isn't sufficient data to determine which methods will be used. For example, it is not clear as to whether explosives will be analyzed by 8330 or revised 8330; whether the propellants that show up in 8330 will be the only propellants looked for, or will 353.2 be run, etc..	Where will this information be clearly specified?	
112	QAPP, section 3.0, page 8	Under the heading "Attachment B" there is an indication that SOPs for metals, explosives, and perchlorate are on file with the laboratories.	Add propellants to this list.	
113	QAPP, section 4.0, page 11	Under the RVAAP header, there is an indication that the following regulatory standards may be used: CPRG GCNs, Single Chemical Clean-up Number Direct Contact Soil, and Alternative Metal Standards.	Remove all of these from the revised QAPP. None of these are used at RVAAP. Additionally, please be advised that with respect to Region 9 PRGs that the residential PRGs are utilized and for carcinogenic analytes a straight comparison is made, but for non-cancer, the analyte is screened at 1/10 the residential PRG.	
114	QAPP, section 4.0, page 12	The RVAAP bullet indicates that "OHEPA CPGR GCNs" will be utilized.	Remove these from the text. Add in installation-wide background numbers.	
115	QAPP, section 5.2.1.1	For test 6 (azimuthal) and test 9 (octant), the text solely indicates that they are performed for magnetometer surveys.	At RVAAP, there will be magnetometer surveys. As such, what is the frequency of testing and the acceptance criteria?	
116	QAPP, section 6.4.1, page 31	At RVAAP, copies of the draft and final reports need to be submitted to the local repositories as well as REIMS.	Coordinate with the acting facility manager.	
117	QAPP, section 7.2, page 34	Copies of the air bill also need to be added to the report, as these are part of the COC.	Revise the text accordingly.	

118	QAPP, section 7.3, page 34	Clarification requested on the second bullet.	What is meant by a "campaign shipment?"	
119	QAPP, section 8.0, page 36	The text discusses the potential for various lab methods to be utilized. However, in cross-referencing with the workplan, there isn't sufficient data to determine which methods will be used. For example, it is not clear as to whether explosives will be analyzed by 8330 or revised 8330; whether the propellants that show up in 8330 will be the only propellants looked for, or will 353.2 be run, etc.	Where will this information be clearly specified?	
120	QAPP, section 8.0, page 36	Text addition requested.	Add propellants to the analyte list (method 353.2)	
121	QAPP, section 9.1, page 38	Any deviations from existing analytical procedures must also have prior approval from the Ohio EPA (in the case of RVAAP).	Revise the text.	
122	QAPP, section 9.2.8, page 42	FYI	Surrogates compounds are no longer used for screening/risk assessment purposes on the RVAAP project.	
123	QAPP, section 9.3.5, page 48	FYI	Surrogates compounds are no longer used for screening/risk assessment purposes on the RVAAP project.	
124	QAPP, section 9.4.3, page 50	Discussion needed.	Please cross-reference previous overarching comments regarding the need to discuss how to handle duplicate and split samples.	
125	QAPP, section 9.4.4, page 51	With respect to blown holding times, improper preservation, and cooler temperatures above the required limit, Ohio EPA will also be part of the discussion to determine if re-sampling is required.	Revise the text accordingly.	

126	QAPP, section 12.4, page 61	The text indicates that the data validation for this project will consist of reviewing the QC summary forms and calibrations for all samples without the raw data.	Please clarify/justify why a review of the raw data is being excluded.	
127	QAPP, section 13.0, page 62 and section 13.1, pages 62-63	The text indicates that "less rigor in the QC limits and the number or frequency of QC samples may be acceptable for samples not used for risk assessment."	Ohio EPA does not agree with this assessment and expects high quality data to be the end goal of this project. A lot is riding on a few samples (i.e., those used to populate the MRS-PP to maybe get to a NFA) without compromising the QC. Remove this from the revised text.	
128	QAPP, section 13/1, page 63	The text indicates that there is the potential that rejected data might be deemed "usable."	Rejected data will not be used on the RVAAP project. Revise the text accordingly.	
129	QAPP, section 13/1, page 63	The text, under item 1, indicates that rejected data is "potentially" unusable.	Rejected data on the RVAAP project is not usable. Revise the text accordingly.	
130	QAPP, section 14.0, page 65	Add Ohio EPA to the list of stakeholders to whom the paper and electronic deliverables must meet certain requirements.	Revise the text.	
131	QAPP, App A, GW SOP	The groundwater sampling SOP was not reviewed, as it is not applicable to the RVAAP project.	No revision necessary. If future efforts require this type of sampling, Ohio EPA will review and comment on the SOP at that time.	
132	QAPP, App A, sediment SOP	The sediment sampling SOP was not reviewed as it is not applicable to the RVAAP project.	No revision necessary. If future efforts require this type of sampling, Ohio EPA will review and comment on the SOP at that time.	

133	QAPP, App A, surface soil SOP, page 1, section 2.1	The text indicates that surface soil samples will be collected at a depth of 0-6" bgs.	Additional discussion of this depth interval is needed. At RVAAP, the surface soil interval is 0-1' bgs for both discrete and MI sampling. Additionally, data obtained from this initiative will be used to populate the MRRS-PP. Given that (with few exceptions) the previous interval has been 0-1' bgs, will this cause any disconnect?	
134	QAPP, App A, surface soil SOP, page 4, section 4.6	The text indicates that any excess material will be returned to the collection site.	This is not correct. Excess materials obtained during this sampling effort must be treated as IDW – i.e., containerized, characterized, and disposed of in accordance with all applicable State, Federal, and local rules, laws, and regulations. Only in the event that all analytes are below established Site background (and analytical results are approved by Ohio EPA), would we consider allowing the materials to be returned to the Site.	
135	QAPP, App A, surface soil SOP, page 6, section 4.7	The text indicates that any excess material will be returned to the collection site.	This is not correct. Excess materials obtained during this sampling effort must be treated as IDW – i.e., containerized, characterized and disposed of in accordance with all applicable State, Federal, and local rules, laws, and regulations. Only in the event that all analytes are below established Site background (and analytical results are approved by Ohio EPA), would we consider allowing the materials to be returned to the Site.	

136	QAPP, App A, surface soil SOP, page 7, section 4.10	The text indicates that any excess material will be returned to the collection site.	<p>This is not correct. Excess materials obtained during this sampling effort must be treated as IDW – i.e., containerized, characterized, and disposed of in accordance with all applicable State, Federal, and local rules, laws, and regulations. Only in the event that all analytes are below established Site background (and analytical results are approved by Ohio EPA), would we consider allowing the materials to be returned to the Site.</p> <p>“Clean” material suitable for backfill is determined by analyzing a source material (subjecting it to the RVAAP full suite of constituents); having Ohio EPA review the results; and approve it as backfill.</p> <p>Another option would be to use bentonite to seal the holes.</p>	
137	QAPP, App A, surface water sampling SOP	The surface water sampling SOP was not reviewed, as it is not applicable to the RVAAP project.	No revision necessary. If future efforts require this type of sampling, Ohio EPA will review and comment on the SOP at that time.	
138	QAPP, App A, water sample field measurement SOP	The water level field measurement SOP was not reviewed, as it is not applicable to the RVAAP project.	No revision necessary. If future efforts require this type of sampling, Ohio EPA will review and comment on the SOP at that time.	
139	QAPP, App B	The June 6, 2005 letter in this appendix does not list STL Denver as being certified to conduct propellant method 353.2.	Please clarify.	

140	QAPP, App B	The June 6, 2005 letter in this appendix indicates that the lab's validation period expires on September 14, 2006.	Please provide an updated validation letter.	
141	QAPP, App C	In the regulatory and PEL soils limit tables, under Ohio, the "OHEPA CPRG GCNs" are listed.	Remove this column from the table. Put in installation-wide background numbers, the Region 9 numbers (adjusted), the cleanup numbers that have been established, etc.	
142	QAPP, App C	In the regulatory and PEL water limit tables, under Ohio, the "OHEPA CPRG GCNs" are listed.	Remove this "OHEPA CPRG GCNs" from the table. MCLs are fine. Put in installation-wide background numbers, the Region 9 numbers (adjusted), the cleanup numbers that have been established, etc. Or, alternatively, since water is not being sampled as part of this project at RVAAP, remove this column entirely.	
143	HASP, General	URS is the RAB TAPP provider and will be providing comments on this document.	TAPP provider comments need to be addressed. Please contact URS if you have not received comments by June 11, 2007.	
144	HASP, General	Ohio EPA does not have regulatory jurisdiction over health and safety plans.	The following comments are offered for your consideration.	
145	HASP, General	Thank you for numbering the lines, as it really aids in the review and comment process.	No changes necessary.	
146	HASP, iii	The phone number for Post 1 should be added to the emergency services contact list.	Please revise text.	
147	HASP, iii	In the project contact list, add Tom Lederle's name and phone number in the event that Irv Venger cannot be reached.	Please revise the text.	
148	HASP, iii	Please change Irv Venger's title to read: Acting Facility Manager.	Please revise the text.	

149	HASP, iii	Please change Eileen Mohr's title to read: Project Manager.	Please revise the text.	
150	HASP, iii	Please add in the e2M site safety and health coordinator.	Please revise the text.	
151	HASP, viii	Add World war II (WWII) to the acronym list.	Please revise the text.	
152	HASP, 1/16	Text revision requested.	Revise the text to read: "... SSHP is based upon and tiers under the..."	
153	HASP, 2/5-8	Please be aware of and utilize Ohio EPA MEC notification form and procedure.	Follow the notification procedure in the event that MEC is identified and must be disposed of either at ODA2 or BIP.	
154	HASP, 2/6	Please change Irv Venger's title to read: Acting Facility Manager.	Please revise the text.	
155	HASP, pages 6-10	Any changes made to WP Table 1 and the text of the WP need to be reflected in this table.	Make any necessary changes.	
156	HASP, pages 6-10	In Table 1, where existing data will be used to populate the MRS-PP, please state that fact.	Revise text accordingly.	
157	HASP, pages 6-10	Please cross-reference previous Ohio EPA comments on the use of Region 9 residential PRGs on the RVAAP project.	With respect to Region 9 PRGs, the residential PRGs are utilized and for carcinogenic analytes, a straight comparison is made, but for non-cancer, the analyte is screened at 1/10 the residential PRG.	
158	HASP, Table 2, page 11	In the physical section, hand tools will be utilized on this project.	Please check the hand tools box.	
159	HASP, Table 3, page 13	In the note section under oils/fuels, please revise the text to read: "... are contained in vehicles that are anticipated to be brought on site."	Please revise the text.	
160	HASP, Table 3, page 13	In the solids section, there is the potential to contact friable asbestos at a number of these AOCs, particularly LNWBG.	Please check the asbestos box.	
161	HASP, Table 4, pages 13-14	Asbestos is another PCOC.	Add asbestos exposure information to this table.	

162	HASP, Table 4, pages 13-14	Nitroguanidine is another PCOC.	Add nitroguanidine exposure information to this table.	
163	HASP, 15/22-25	Please be aware of and utilize Ohio EPA MEC notification form and procedure.	Follow the notification procedure in the event that MEC is identified and must be disposed of either at ODA2 or BIP.	
164	HASP, 15/23	Please change Irv Venger's title to read: Acting Facility Manager.	Please revise the text.	
165	HASP, 16/8	Please change Irv Venger's title to read: Acting Facility Manager.	Please revise the text.	
166	HASP, 16/9-13	Please be aware of and utilize Ohio EPA MEC notification form and procedure.	Follow the notification procedure in the event that MEC is identified and must be disposed of either at ODA2 or BIP.	
167	HASP, 17/30-31	Please be aware that there are many cell phone "dead areas" at RVAAP and make sure that you have back-up communication equipment.	Have back-up communication devices at all times. Do not solely rely on cell phones.	
168	HASP, 22/29	For medical, fire, and explosion emergencies, the immediate contact is Post 1. Post 1 handles the contacting of emergency services.	Revise the text to read that Post 1 will be contacted.	
169	HASP, 29/23-29	The ODH has bottles available for containerizing any partially embedded or totally embedded tick. The ODH is conducting studies on ticks in Ohio.	Please contact the ODH in Columbus for tick bottles.	
170	HASP, 30/26-28	Please remove the reference to Kentucky snakes and make sure that all the listed snakes can be found in Ohio.	Make necessary corrections.	
171	HASP, 31/14-15	The intent of the sentence is not clear.	Please re-write, so that the sentence is more clear.	
172	HASP, 34/24-29	Clarification requested.	Please clarify whether e2M provides additional resources to a potentially exposed person, for example, counseling, testing of the initial victim, etc.	

173	HASP, 35/5-7	Please note that during the field effort that Ohio EPA will be present for both oversight and sampling purposes.	Add Ohio EPA personnel to the list of people that may be on site during field activities.	
174	HASP, Table 6	In this table, please clarify who will be acting as the e2M SSC.	Add this information to the revised table.	
175	HASP, Table 6	Please change Irv Venger's title to read: Acting Facility Manager	Please revise the text.	
176	HASP, Table 6	Please change Eileen Mohr's title to read: Project Manager	Please revise the text.	
177	HASP, 38/24-28	Please ensure that copies of all 40 hour certifications and 8 hour updates are on file with the RVAAP operating contractor.	Periodic inspections of on-site worker training certificates are conducted. Make sure copies are on file at RVAAP prior to work commencing.	
178	HASP, 42/10-13	Please ensure that copies of all 40 hour certifications and 8 hour updates are on file with the RVAAP operating contractor.	Periodic inspections of on-site worker training certificates are conducted. Make sure copies are on file at RVAAP prior to work commencing.	
179	HASP, 44/26-27 through 45/1-25	The text on page 44 clearly indicates that no excavation or trench work is anticipated for this project. As such, it is unclear as to why there is detail regarding trenching and excavation on page 45.	Consider removing the text on page 45 (lines 1-25) from the revised text.	
180	HASP, 47/1-8	Clarification requested.	Does this section apply to the proposed field effort? (For example, does the magnetometer have a cesium source)??	
181	HASP, 47/9-15	This text discusses how to handle fuel or hazardous materials spills.	Please cross-reference the RVAAP spill procedure (not sure of exact title).	

182	HASP, 48/1	The text indicates that the RVAAP has a perimeter fence that has guarded entry points. This makes it sound as though there are numerous entry points rather than the one at Post 1 where contractors (etc.) will enter, and the entrance over on the east side at RTLS.	Please adjust the text to be more accurate.	
183	HASP, 48/1-2	The text indicates that those with valid ID are permitted access to the installation.	This is not correct. For example, people with prior felonies are not allowed on the installation. Check with the operating contractor for all rules on gaining access to the installation.	
184	HASP, 49/1-5	In the event of a serious medical emergency, it is unclear as to why time would be wasted in contacting the e2M SSC (if he/she is not right there).	Call Post 1 immediately, so that emergency services can be summoned.	
185	HASP, 49/2-4	If a person's injury is more serious than first aid that can be administered at the site, call Post 1 and have them summon emergency services.	Why run the risk of transporting someone to the hospital in a site vehicle?	
186	HASP, 49/5	At RVAAP, the proper procedure is to contact post 1, which in turn will contact emergency services. 911 is not directly called by the on-site personnel dealing with the victim.	Call Post 1. Make sure the Post 1 contact information is in the appropriate charts/tables in this HASP.	

187	HASP, 49/6-7	The text in this section states: "A vehicle will be available at all times in the event that immediate transportation to a hospital or emergency care center is necessary for injured person(s)."	In the event that person(s) are injured to the point that they need immediate attention and care, they should not be transported in a private vehicle. Call Post 1 and have them call a squad that can provide BLS and/or ALS. (How is it anticipated that the correct life saving care can be properly given to a victim in the back of a vehicle by people without the appropriate BLS/ALS training?)	
188	HASP, 49/20-21	The text in this section references a first aid kit.	Provide additional details on what is in the first aid kit, how often it will be inspected, etc. (First aid kits vary significantly in contents.)	
189	HASP, 52/3-8	Please ensure that copies of all 40 hour certifications and 8 hour updates are on file with the RVAAP operating contractor.	Periodic inspections of on-site worker training certificates are conducted. Make sure copies are on file at RVAAP prior to work commencing.	



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
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www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

June 11, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL UNDERSLAB SAMPLING WORKPLAN

CERTIFIED MAIL

Mr. John Jent
U.S. Army Corps of Engineers
CERLRL-ED-EE
Room 921
P.O. Box 59
Louisville, KY 40201

Dear Mr. Jent:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR), has received and reviewed the document entitled: "Final Sampling and Analysis Plan Addendum for the Exposed Soils Characterization after Slab and Foundation Removals at ~~Load Lines 5, 7, 8, and 10~~". This document, dated May 8, 2007 and received at Ohio EPA, NEDO, on May 9, 2007, was prepared by the U.S. Army Corps of Engineers (USACE), Louisville District.

Enclosed are Ohio EPA's comments on the above-referenced workplan.

If you have any questions, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Michael J. Eberle
MJE

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

Enclosure

cc: Bonnie Buthker, Ohio EPA, DERR, SWDO
Glen Beckham, USACE Louisville
Mark Krivansky, AEC
MAJ Ed Meade, OHARNG
Katie Elgin, OHARNG
Irv Venger, RVAAP

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR

7	2/18	Typo.	Change Plant to Plan.	
8	2/21-22	Punctuation.	Put quotation marks around the title of the document.	
9	3/5	The text indicates that the nature and extent of contamination at Load Lines 5, 7, 8, 10 was determined during the 14 AOC characterization effort.	Nature and extent was not determined during the 14 AOC investigation. Revise the text.	
10	3/14	Grammar.	Remove "and" from this sentence.	
11	4/16	Grammar.	Remove "and" from this sentence.	
12	4/22	Punctuation.	Put a colon after follows.	
13	4; 2 nd bullet	Revise the text to read: "Assess the acquired data to determine if any data gaps exist with respect to sources and extent of surface soil contamination."	Revise the text. Given that samples are proposed from a 0-1'bgs interval, there will more than likely be subsurface data gaps.	
14	5/10-11	The text references a July 2004 final report for Load Lines 5, 7, 8, and 10.	It is not clear what this report is, and one cannot be found on file at Ohio EPA. Please provide a copy.	
15	8/17	The text references "metal salts."	Please define in the text what is meant by "metal salts."	
16	8/17-21	Text revision requested.	Move the text in this section to just after the end of the sentence in line 11.	
17	10/3-8	Text addition requested.	Add text that indicates a temperature blank will be added to each cooler.	

31	Fig 4-2	Corrections requested.	a. Change discreet to discrete. b. Add the primary sample to the legend.	
32	Fig 4-3	Corrections requested.	a. Change discreet to discrete. b. Add the primary sample to the legend.	
33	Fig 4-4	Corrections requested.	a. Change discreet to discrete. b. Add the primary sample to the legend.	
34	Table 4-1	Corrections requested.	a. Change discreet to discrete. b. Add the primary sample to the legend.	
35	Table 4-2	Corrections requested.	a. Change discreet to discrete. b. Add the primary sample to the legend. c. Revise column width justification. (Ex. Bldg 1B-WP-6 – approx square footage.)	
36	Table 4-3	Corrections requested.	a. Change discreet to discrete. b. Add the primary sample to the legend. c. Revise column width justification. (Ex. Bldg 2B-WP-6 – approx square footage.)	
37	Table 4-4	Corrections requested.	a. Change discreet to discrete. b. Add the primary sample to the legend. c. Revise column width justification. (Ex. Building column.)	

43	App D/page 1	The text on this page references the use of MI samples in risk assessment.	Remove the reference regarding the use of MI samples in risk assessment. MI samples are not used in risk assessments.	
44	Attach- ment	Clarify that the attachment is the building survey location map and corresponding coordinates.	Revise cover sheet.	
45	RTCs	Clarification requested.	Any response to the 11/16/06 Ohio EPA e-mail?	



State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

July 6, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
MMRP SI EXTENSION REQUEST

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

On July 5, 2007, the Ohio Environmental Protection Agency (Ohio EPA) received your correspondence dated July 3, 2007 requesting an extension for the submission of the final Military Munition Response Program (MMRP) Site Investigation (SI) workplan from July 13, 2007 to August 10, 2007. The extension is being requested in order to schedule a response to comment (RTC) meeting to discuss outstanding issues with the draft SI workplan.

Ohio EPA is in agreement that the milestone date of July 13, 2007 can be extended. This extension is granted based upon the need to ensure that all stakeholder comments are adequately considered and addressed, especially those from the Restoration Advisory Board (RAB) Technical Assistance for Public Participation (TAPP) provider. Additionally, it is our understanding that comments will be forthcoming from the National Guard Bureau (NGB) that also will need to be addressed.

Be advised that by providing this extension there will necessarily be an impact upon the additional milestone date that is tied to this submission, i.e. any replacement pages for the final workplan. This milestone date is currently set at September 12, 2007. Ohio EPA is also willing to grant an extension for that milestone provided that field work will still commence as planned on October 1, 2007. The Ohio EPA expects that all subsequent Order milestones for the draft SI report (January 25, 2008); the final SI report (April 04, 2008) and change-out pages for the final SI report (May 30, 2008) will be adhered to by the Army and its contractor.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,

Eileen T. Mohr, Project Manager
Division of Emergency and Remedial Response

ETM/ams

cc: Bonnie Buthker, Ohio EPA SWDO DERR
Mary Ellen Maly, AEC
Mark Krivansky, AEC
Cheryl Groenjes, USACE Omaha
Jerome Stolinski, USACE Omaha
Glen Beckham, USACE Louisville
MAJ Ed Meade, OHARNG

Kimberly Harriz, NGB/EEI
Phil Werner, e2M
Daniel Zugris, e2M
Katie Elgin, OHARNG

ec: Todd Fisher, Ohio EPA NEDO DERR
Mike Eberle, Ohio EPA NEDO DERR



Notice of Intent (NOI) For Coverage Under Ohio Environmental Protection Agency General Permit

Return to DCAISPO 7-6-07

(Read accompanying instructions carefully before completing this form)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment D of the NOI instructions for the appropriate processing fee)

I. Applicant Information/Mailing Address

Company (Applicant) Name: Base Realignment and Closure Office
Mailing (Applicant) Address: Ravenna Army Ammunition Plant, 8451 State Route 5
City: Ravenna State: Ohio Zip Code: 44266
Contact Person: Mr. Irving Venger Phone: (330) 358-7312 Fax: (330) 358-7314
Contact E-Mail Address: Irving.B.Venger@us.army.mil

II. Facility/Site Location Information

Facility Name: Ravenna Army Ammunition Plant
Facility Address/Location: 8451 State Route 5
City: Ravenna State: Ohio Zip Code: 44266
County(ies): Portage and Trumbull Township(s): _____
Facility Contact Person: Mr. Irving Venger Phone: (330) 358-7312 Fax: (330) 358-7314
Facility Contact E-Mail Address: Irving.B.Venger@us.army.mil

Quarter: _____ Section(s): _____ Range: _____

Receiving Stream or MS4: Load Lines 1, 2 and 3 drain to Sand Creek; Load Line 4 drains to Kirwan Reservoir

If aware of a state nature preserve within 1,000 feet of the facility/site, check here: ☐

Enter river code here, if discharge is to a river designated scenic, wild, or recreational, or to a tributary within 1,000 feet (see instructions): _____

General Permit Number: OHC000002 Construction Storm Water Initial Coverage: ☒ Renewal Coverage: ☐

Type of Activity: Construction SW / Darby SW - 1 to 5.99 acres disturbed Fee = \$200

SIC Code(s): _____

Existing NPDES Permit Number: _____

ODNR Coal Mining Application Number: _____

Outfall	Design Flow (MGD)	Latitude	Longitude
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Other DSW Permits Required: _____

Proposed Project Start Date (MO DY YR): 08/01/07 Estimated Completion Date: (MO DY YR): 11/30/07

Total Land Disturbance (Acres): 4.50 MS4 Drainage Area (Square Miles): _____

Payment Information: Check # _____ Check Amount: _____ Date of Check: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Name: Irving Venger Title: RVAAP Facility Manager
Applicant Signature: Irving B. Venger Date: July 6, 2007

lv

With the signing of the ROD, it looks like Shaw can now submit the Notice of Intent (NOI) for construction storm water to the EPA. Attached is the NOI for your signature. I'm not sure how you would like to get it back to me (snail mail or electronically if you have an electronic signature). Shaw will submit the NOI with fee (\$200) and then send out the final version of the Storm Water Pollution Prevention Plan. Let me know if this works for you.

On another note, I'm not sure if you contacted Maj. Meade regarding Shaw's proposed trailer placement on RTLS property, but I tried to call him as well several times but could not reach him. I will keep trying.

Thanks

David C. Crispo, P.E.
Project Engineer
Shaw Environmental & Infrastructure
100 Technology Center Drive
Stoughton, MA 02072
617.589.8146 direct
617.589.2160 fax
www.shawgrp.com

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The Shaw Group Inc.

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www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 07, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
FINAL **MMRP** SI WORKPLAN

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Final, Work Plan, Military Munitions Response Program, Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated August 2007 and received at Ohio EPA, NEDO, on August 15, 2007, was prepared for the U.S. Army Corps of Engineers (USACE), Omaha District, by engineering-environmental Management (e²M), under contract number DACA-63-03-D0009, task order number DK01.

The final work plan was reviewed compared to the draft work plan and the response to comment (RTC) matrix. The comments below were transmitted via telephone on this date to Mr. Phil Werner (e²M), who immediately made the changes to the document where necessary. This correspondence serves to memorialize the changes that were requested by Ohio EPA:

1. Work Plan [WP] (page 2-19, 2nd paragraph): Changed text from "sediment" to read "dry sediment."
2. WP (page 3-16, table 4): In the Water Works # 4 (WW#4) row, added propellants to the analytical suite.
3. WP (page 3-18, table 5): In the WW#4 row, added propellants to the analytical suite. Re-summed the total row.
4. Field Sampling Plan (FSP): Acronym list will be inserted in the replacement document.
5. FSP (Table 1): This table will be checked for consistency against Table 3 of the work plan. For example, text was added to the Open Demolition Area # 2 (ODA2) row to indicate that the Munitions Response Site (MRS) boundary was also subject to a meandering path magnetometer survey.
6. FSP (Table 2): WW#4 was added to this table.

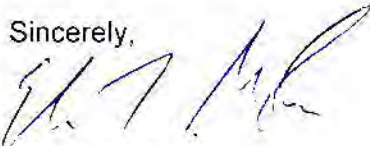
MR. IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
SEPTEMBER 07, 2007
PAGE 2

7. FSP (Table 3): In the WW#4 row, added propellants to the analytical suite. Re-summed the total row.
8. FSP (Table 4): In the Load Line 1 row, changed text from "sediment" to read "dry sediment."
9. FSP (figures 7, 8, 13): If the figures have not already been re-printed, the legend will be changed from "discrete" to "composite" sample. In the event that the figures have already been reproduced, the figures can remain as is.
10. Quality Assurance Project Plan (QAPP), section 9.4.4, page 34: The duplicative language regarding holding times (etc.) was removed.

It is my understanding that an entirely new document will need to be submitted based upon the major change of having to remove the Old Hay Field MRS from this site investigation (SI) effort. Ohio EPA reviews final documents and issues a formal approval letter prior to allowing field work to commence. In this case, however, key portions of the revised document will be reviewed in an expedited fashion and a confirmatory email sent out to stakeholders that the workplan is approved, so that field work can still commence on October 01, 2007.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Mark Krivansky, AEC
Jerome Stolinsky, USACE Omaha
Katie Elgin, OHARNG RTLS
Kim Harriz, NGB
Daniel Zugris, e²M

Mary Ellen Maly, AEC
Cheryl Groenjes, USACE Omaha
Glen Beckham, USACE Louisville
MAJ Ed Meade, OHARNG RTLS
Phil Werner, e²M

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR
Jo Ann Bartsch, URS



State of Ohio Environmental Protection Agency

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www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 18, 2007

RE: Ravenna Army Ammunition Plant
Portage/Trumbull Counties
Final Final **MMRP S11WP**

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Final, Work Plan, Military Munitions Response Program, Ravenna Army Ammunition Plant, Ohio." This document, dated September, 2007 and received at Ohio EPA NEDO on September 13, 2007, was prepared for the US Army Corps of Engineers (USACE) – Omaha District by engineering-environmental Management (e²M) under contract number DACA-63-03-D0009.

This document was compared to the previous final document (dated August, 2007) and Ohio EPA comments dated September 07, 2007.

Two minor comments are noted:

1. In the Field Sampling Plan (FSP), page 42 (figure 13), there is a meandering path survey designated for the Old Hay Field. Since this area was removed as a Munitions Response Site (MRS) under this effort, no geophysical investigations will take place in this area.
2. In the FSP on page 52 (line 6), the reference to the Old Hay Field should be removed.

Either replacement pages can be submitted for the above, or the references to the Old Hay Field could be manually removed by all stakeholders utilizing the one line strikeout with initial correction protocol. Please advise me as to your preference. In any event, the final workplan is approved and field work can commence as planned on October 1, 2007.

RAVENNA ARMY AMMUNITION PLANT
SEPTEMBER 18, 2007
PAGE 2

If you have any questions concerning this correspondence, please do not hesitate to contact me at 330-963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM:dms

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Mary Ellen Maly, AEC
Mark Krivansky, AEC
Cheryl Groenges, USACE Omaha
Jerome Stolinsky, USACE Omaha
Glen Beckham, USACE Louisville
Katie Elgin, OHARNG RTLS
MAJ Ed Meade, OHARNG RTLS
Kim Harriz, NGB
Phil Werner, e²M
Daniel Zugris, e²M

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR
Jo Ann Bartsch, URS



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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

June 22, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
MEC INCIDENT AT **ODA2**
ADDITIONAL WORK

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

During the afternoon of June 18, 2007, an unexpected detonation occurred at the Ravenna Army Ammunition Plant (RVAAP) in Open Demolition Area # 2 (ODA2) at the area euphemistically referred to as "**Rocket Ridge**." The Ohio Environmental Protection Agency (Ohio EPA) representatives were notified of the incident on the afternoon of June 19, 2007 by both you and the contracting firm (PIKA), whose representatives were working in the ODA2 area. During that meeting, Ohio EPA relayed several concerns to both you and the contractor regarding the current situation at "Rocket Ridge." These included the need for immediate actions by the Army to ensure safety of on-site workers and Ohio Army National Guard (OHARNG) representatives, pro-active public relations, temporary measures by the Army to ensure that munitions and explosives of concern (MEC) present in and on the banks of Sand Creek remain on post, and long term actions to stabilize and remove the MEC from this area.

Ohio EPA appreciates your effort to elevate this situation up through the Army chain of command. We also appreciate your efforts to brief Ohio EPA on how this incident is being handled by the Army, especially since there are two Army organizations involved that could respond to this issue. Based on your June 20, 2007 telephone briefing, Ohio EPA understands that the Army Environmental Center (AEC) will be taking the lead on this issue under the Military Munitions Response Program (MMRP). Ohio EPA also understands that the U.S. Army Corps of Engineers (USACE) – Huntsville, Center of Expertise (CX), will be integrally involved in the evaluation of and subsequent decision-making on how to handle the current situation. It is also our understanding that Rock Island Arsenal will take the lead on public relations issues, and that the USACE CX will most likely be arriving early next week to assess the situation at Rocket Ridge.

Ohio EPA agrees that the most critical issue is to ensure the health and safety of on-site personnel, contractors, and OHARNG personnel. Affected personnel should be notified

and access to this area should be restricted until USACE, or other authorized personnel, can assess the situation. Ohio EPA understands that the OHARNG intended to begin using the Mark 19 Range at the former Winklepeck Burning Grounds on Monday, June 25, 2007, to train units being deployed to Iraq and Afghanistan. However, because the reported fragmentation radius of a 500 pound bomb (there are three reported to be in "Rocket Ridge," along with other MEC) would encompass all of the firing points for the range, the range has temporarily been shut down. The USACE CX, and others, will be assessing whether the OHARNG can safely use the Mark 19 Range, or whether it should be closed until this MEC can be removed.

The contractor's Senior UXO Supervisor (SUXOS) has also reported that additional MEC, including more rifle grenades that may contain white phosphorous (WP), exist in the channel and along the flood plain of Sand Creek. With the potential for thunderstorms, the current situation at Rocket Ridge could worsen, with more MEC being exposed and more MEC getting into Sand Creek. Heavy rains could also cause flooding, which could move MEC downstream and off-post. The Army needs to take actions to stabilize the situation at Rocket Ridge, until a more permanent solution can be implemented.

In addition to safety concerns, Ohio EPA is also concerned about the potential environmental impacts from the MEC at Rocket Ridge. Sand Creek has attained the Warmwater Habitat (WWH) aquatic life use designation. This designation defines the typical warmwater assemblage of aquatic organisms for Ohio rivers and streams, and represents the principal restoration target for the majority of water resource management efforts in Ohio. Additionally, the Mountain Brook Lamprey (a state endangered fish) and the caddisfly *Psilotreta indecisa* (a state threatened insect) were collected from Sand Creek.

Ohio EPA believes that immediate evaluation and stabilization of this situation is warranted. The Army also must obtain funding to plan and execute a permanent action for this area, to ensure that additional incidents do not occur. Since MEC are covered under the Director's Final Findings and Orders (journalized June 10, 2004), Ohio EPA is hereby invoking the additional work clause (Section XI). This Section of the Orders requires the Respondent (Army) to submit a workplan within sixty (60) days of receipt of written notice from Ohio EPA that additional work is necessary. The scope of the additional work should cover both short term and long term actions for safeguarding human health and the environment, as well as remediating "Rocket Ridge." It is hoped that immediate plans and action for stabilizing the situation will take significantly less than the sixty (60) days specified in the Order.

IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
JUNE 22, 2007
PAGE 3

We look forward to working with the Army in evaluating and resolving the current situation. If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Mary Ellen Maly, AEC
Mark Krivansky, AEC
Tom Lederle, BRAC
Betina Johnson, USACE CX – Huntsville AL
Glen Beckham, USACE – Louisville
MAJ Ed Meade, OHARNG RTLS
Katie Elgin, OHARNG RTLS

ec: Bill Skowronski, Chief, Ohio EPA, NEDO
Bonnie Buthker, Ohio EPA, DERR, SWDO
Mark Navarre, Ohio EPA, Legal, CO
Cindy Hafner, Ohio EPA, DERR, CO
Pete Whitehouse, Ohio EPA, DERR, CO
Mike Settles, Ohio EPA, PIC, CO
Rod Beals, Ohio EPA, DERR, NEDO
Mike Eberle, Ohio EPA, DERR, NEDO
Todd Fisher, Ohio EPA, DERR, NEDO



State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

August 23, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
ROCKET RIDGE EXTENSION REQUEST

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL

Dear Mr. Venger:

On August 17, 2007, the Ohio Environmental Protection Agency (Ohio EPA) received your correspondence dated August 14, 2007, requesting an extension to the sixty (60) day timeframe for the submission of workplans for short and long term remedial actions at the "Rocket Ridge" area of Open Demolition Area #2 (ODA2), Ravenna Army Ammunition Plant (RVAAP). Your extension request was sent in response to Ohio EPA correspondence dated June 22, 2007 which invoked the additional work clause of the June 2004 Director's Final Findings and Orders. Specifically, the Ohio EPA correspondence indicated that immediate evaluation and stabilization of the situation was warranted. We also requested that the Army obtain funding to plan and execute a permanent remedy for this area.

In the Army's August 14, 2007 letter, the Army proposed holding a scoping meeting in September 2007 to further discuss the issues concerning "Rocket Ridge." Ohio EPA concurs with the Army's proposal to hold a scoping meeting during the early part of September 2007. The purpose of this meeting would be to address any outstanding issues and reach consensus on a plan to address "Rocket Ridge." This meeting should not only include a site visit, but include discussions on and resolution of the proposed schedule and funding issues. Please arrange for a mutually convenient meeting time in early September 2007 for all involved stakeholders. Additionally, please prepare and submit to the Ohio EPA for review and approval, a proposed agenda for the meeting at least one week prior to the scheduled meeting date.

However, Ohio EPA does not approve the Army's extension request to submit draft stabilization work plans no later than December 15, 2007. When Ohio EPA sent the additional work letter on June 22, 2007, we requested that the Army implement actions to stabilize the situation at "Rocket Ridge" in the near term. If the Army does not submit plans to stabilize "Rocket Ridge" until mid-December 2007, it is likely that field work will not begin until mid-March 2008 at the earliest. Ohio EPA is concerned that situation at Rocket Ridge could worsen over the winter, since freeze/thaw cycles could bring more buried munitions and explosives of concern (MEC) to the surface or could cause more soil and MEC to be eroded from the bank of Sand Creek. Additionally, in the last several days, a number of areas within northeastern Ohio, including the Ravenna area, have received several inches of rain. It is the Agency's position that the amount and intensity of rain during these storms may have caused increased erosion of the embankment that contains MEC. Until some type of stabilization effort is completed at "Rocket Ridge", the weather extremes can cause the existing situation there to worsen. Stabilization efforts are needed to provide both the Army and Ohio EPA time to develop a more comprehensive remedy for this site.



The Army also proposed in the August 14, 2007 letter that the deadline for submitting the work plan to implement a long-term solution for "Rocket Ridge" be based on ODA2's prioritization under the Munitions Response Site-Prioritization Protocol (MRS-PP) and when available funding was received. While we understand that the Army may have funding issues with their overall Military Munitions Response Program (MMRP), it was our understanding that the Army had already planned to obtain necessary funding to conduct a remediation of the "Rocket Ridge" area during Federal Fiscal Year (FFY) 2008. Based on your letter, it now appears that the Army has decided to delay their original plan to fund the "Rocket Ridge" removal during FFY08. The munitions incident of June 18, 2007, should increase the need to obtain funding to address this site, not lessen the need. For the last several years, Ohio EPA has been strongly encouraging the Army to address the munitions issues at ODA2. This munitions incident validates Ohio EPA's position that this area needs to be addressed.

In conclusion, the Ohio EPA agrees that a good first step is to hold a scoping meeting during the early part of September, 2007. This meeting should include discussions on and resolution of the proposed schedule and funding issues. However, as currently presented, the proposed schedule for both the short and long term remedial actions at "Rocket Ridge" are not acceptable to Ohio EPA. It is Ohio EPA's expectation that the Army will actively seek the necessary funding required to remediate "Rocket Ridge" during FFY08 as previously agreed upon during the Installation Action Plan (IAP) in February, 2007.

If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr, Project Manager
Division of Emergency and Remedial Response

ETM/ams

cc: Mary Ellen Maly, AEC
Mark Krivansky, AEC
Cheryl Groenjes, USACE Omaha
Kim Harriz, NGB
Katie Elgin, OHARNG RTLS
MAJ Ed Meade, OHARNG RTLS
Phil Werner, e2M

ec: Tom Winston, Ohio EPA, SWDO, Chief
Bonnie Buthker, Ohio EPA, SWDO, DERR
Laura Powell, Ohio EPA, Central Office, Director's Office
Mark Navarre, Ohio EPA, Central Office, Legal
Cindy Hafner, Ohio EPA, Central Office, DERR, Chief
Bill Skowronski, Ohio EPA, NEDO, Chief
Keith Riley, Ohio EPA, NEDO, Assistant Chief
Rod Beals, Ohio EPA, NEDO, DERR
Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

October 19, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
ROCKET RIDGE WORKPLAN (DRAFT)

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the document entitled: "Stakeholder Draft, Letter Work Plan, Military Munitions Response Program, Time Critical Response Action, Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated October, 2007 and received at Ohio EPA on October 12, 2007 was prepared by engineering-environmental Management (e²M) for the US Army Corps of Engineers, Omaha District under contract number DACA-63-03-D0009.

Attached to this cover letter, please find comments from Ohio EPA's Northeast and Southwest District Offices, Division of Emergency and Remedial Response.

If you have any questions concerning this correspondence, please do not hesitate to contact me at 330-963-1221.

Sincerely,

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Mary Ellen Maly, AEC
Mark Krivansky, AEC
Cheryl Groenjes, USACE Omaha
Jerome Stolinsky, USACE Omaha
Glen Beckham, USACE Louisville
Katie Elgin, OHARNG RTLS
Daniel Zugris, e²M
Phil Werner, e²M

ec: Mike Eberle, Ohio EPA NEDO DERR
Todd Fisher, Ohio EPA NEDO DERR



“STAKEHOLDER DRAFT, LETTER WORK PLAN, MILITARY MUNITIONS RESPONSE PROGRAM, TIME CRITICAL RESPONSE ACTION, RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO”

REVIEWERS: EILEEN T. MOHR, OHIO EPA NEDO DERR and BONNIE BUTHKER, OHIO EPA SWDO DERR

DATE: OCTOBER 19, 2007

CMT #	Page #/ Line #	COMMENT	RECOMMENDATION	RESPONSE
1	General	During the September 20, 2007 meeting, the Ohio EPA had requested a formal response to our August 23, 2007 correspondence. This would include an outline of the proposed strategy (both short term and long term). As of this date, no response has been received.	Please provide Ohio EPA with a date by which a response will be received. It is our expectation that if action items are agreed to by all stakeholders, that the agreements will be honored. Please adhere to agreements in the future.	
2	General	During the September 20, 2007 meeting, one agreed-upon action item was that meeting minutes would be received at Ohio EPA during the week of October 1, 2007. As of this date, no meeting minutes have been received.	Please provide Ohio EPA with a date by which the meeting minutes will be received. It is our expectation that if action items are agreed to by all stakeholders, that the agreements will be honored. Please adhere to agreements in the future.	
3	General	During the September 20, 2007 meeting, one agreed-upon action item was that a draft schedule would be received at Ohio EPA the week of October 1, 2007. This did not occur. The first time we are seeing the schedule is as part of this workplan, even though we had requested the schedule again in a follow-on schedule conference call.	It is our expectation that if action items are agreed to by all stakeholders, that the agreements will be honored. Please adhere to agreements in the future. We are now faced with a proposed schedule that will result in actions occurring after another free-thaw cycle in NE Ohio which is	

			something that Ohio EPA wanted to avoid. (See our correspondence dated June 22, 2007 and August 22, 2007.) There needs to be additional discussion to determine how the schedule can be expedited.	
4	1/9	"Site" and "site" have specific meaning under the Director's Final Findings and Orders.	Please change "Site" to "site."	
5	2/1	Text change requested.	Change Demolition Area #2 to Open Demolition Area #2.	
6	2/1-2	Detonation of large caliber munitions and off-spec bulk explosives also occurred at Open Demolition Area #2.	Please add this information to the revised text.	
7	2/4	Text change requested.	Change "fuses" to "fuzes."	
8	2/4	Text change requested.	Change "booster tubes" to "burster tubes."	
9	2/7	"Site" and "site" have specific meaning under the Director's Final Findings and Orders.	Please change "Site" to "site."	
10	2/11	"Site" and "site" have specific meaning under the Director's Final Findings and Orders.	Please change "Site" to "site."	
11	3/1	Text change requested.	Revise text to read: "...downstream movement of munitions and explosives of concern (MEC) within Sand Creek..." (Specifically, we do not know that all the materials that are in Sand Creek and that may migrate to Sand Creek have been de-militarized.)	
12	3/3	Text change requested.	Revise text to read: "...will stop any munitions materials from..."	

			(Specifically, remove "dangerous.")	
13	3/6	Text change requested.	Revise text to read: "... Sand Creek where munitions are present." ..." (Specifically, we do not know that all the materials that are in Sand Creek and that may migrate to Sand Creek have been de-militarized.)	
14	3/15-16	This portion of the text refers to the proposed schedule.	As a working group, we need to figure out how to expedite the schedule in order that we do not go through another freeze thaw cycle without the creek containment system being in place. This issue has been raised previously by Ohio EPA numerous times – see especially our correspondence dated June 22, 2007 and August 23, 2007.	
15	4/2	Text change requested.	Revise text to read: "...Rocket Ridge where munitions from..."	
16	4/21-27	During the September 20, 2007 meeting, there was considerable discussion regarding the Sand Creek stream survey. It is Ohio EPA's recollection that we had agreed to start at the George Road bridge and work upstream. It is not clear how the 2 different segments of Sand Creek (1200 feet and 1500 feet) were determined.	Given the high water and flooding conditions of a couple years ago, the length of time that the materials may have been discharging into the creek, etc., the Ohio EPA's position is that the entire stream segment from the George Road bridge to Rocket Ridge needs to be surveyed. This would include areas of the stream that are currently under water, as well as those areas that have shown recent high water activities (i.e. the floodplain). It	

			should not be done on a segmented basis. Additionally, given the time of the year and the quantity of leaf litter in the stream, a hand held magnetometer should be utilized for the entire stream segment.	
17	6/fig 1	Figure revision requested.	Revise the figure to expand the Sand Creek survey sector east to George Road.	
18	A-3/table 1	Text change requested.	In the slips, trips and falls category, please change the anticipated risk to moderate to high.	
19	Schedule	This portion of the workplan presents the proposed schedule.	As a working group, we need to figure out how to expedite the schedule in order that we do not go through another freeze thaw cycle without the creek containment system being in place. This issue has been raised previously by Ohio EPA numerous times – see especially our correspondence dated June 22, 2007 and August 23, 2007.	



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
RAVENNA ARMY AMMUNITION PLANT
8451 STATE ROUTE 5
RAVENNA, OHIO 44266-9297

21 December 2007

Ms. Eileen Mohr
Project Manager
State of Ohio Environmental Protection Agency
Division of Emergency and Remedial Response
2110 East Aurora Road
Twinsburg, Ohio 44087

Re: Progress Update for Rocket Ridge
Stabilization/Remedial Action Work Plans

Dear Ms. Mohr:

The purpose of this letter is to communicate progress on the milestones for addressing the Rocket Ridge (RR) area within the Munitions Response Site (MRS) for Open Demolition Area Number 2 at Ravenna Army Ammunition Plant. Army correspondence dated August 14, 2007 outlined three major milestones that included (1) a Stakeholder Scoping Meeting, (2) creation of Stabilization Work plans, and (3) Remedial Work plans. The first milestone was achieved on September 20, 2007 and the final minutes of that scoping meeting are attached as enclosure 1. The remaining milestones are on-track to be met within current schedules.

Results from the RR scoping meeting included building a common understanding of the RR conceptual site model (CSM) via first-hand observations of the area and open dialogue among all stakeholders. The need for a downstream munitions reconnaissance survey was identified and completed within the original time lines. Another key result of the scoping meeting was the identifying the path forward in compliance with the CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) process. At this time the Army supports simultaneous execution of two separate projects in the RR area:

(1) The recommended Time-Critical Response Action (TCRA) of attaining stabilization of the munitions at RR. This work is moving forward according to schedule.

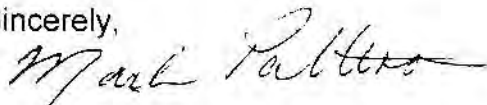
(2) The CERCLA Site Inspection (SI) is also underway and will continue as scheduled. A key result of the SI phase will be the Munitions Response Site Prioritization Protocol (MRSP) score. It lays the foundation for inclusion and prioritization of the future MRS cleanup as directed by Defense Authorization Act Sec. 311 and 312. The Army fully anticipates submitting the draft SI report as requested by the OHEPA Directors Final Findings and Orders [XVIII (39)] milestone of January 25, 2008. Thereafter, stakeholder discussions about the SI results will be conducted in conjunction with a Technical Project Planning (TPP-3) meeting. Future Order milestones for the final SI report (April 4, 2008), and change-out pages (May 30, 2008) are also on-track for timely completion.

The Army has also proposed a schedule listed in enclosure 1 for the steps to execute the TCRA project. More specifically, the real-time results from the November 2007 reconnaissance survey have determined where and how munitions are distributed downstream. The Army summarized this critical information for all stakeholders during the November 8, 2007 teleconference. Future teleconferences will discuss other issues, including those raised in your October 29, 2007 correspondence. These teleconferences will allow the working group an opportunity to communicate critical data, and make joint decisions whenever possible. This approach will also help expedite and achieve future milestones, such as the submission of the Action Memorandum, and the draft TCRA WP including O&M plan to the OHEPA by January 16, 2008.

The Army has continued to seek and obtain funding resources for the RR work, as demonstrated by the rapid contracting and turn-around of the work plans and execution of the stream survey of November 5 - 7, 2007. Future funding resources are also continually being sought.

If you have any questions concerning this correspondence, please do not hesitate to call me at (330) 358-7312.

Sincerely,



Mark Patterson
Facility Manager
Ravenna Army Ammunition Plant

Cc:

Irv Venger, RVAAP
Mary Ellen Maly, USAEC
Mark Krivansky, USAEC
Jerome Stolinski, USACE
Cheryl Groenjes, USACE
Bonnie Buthker, Ohio EPA
Kimberly Harriz, NGB/EEI
Katie Elgin, RTLS
Jo Ann Bartsch, URS
Phil Werner, e²M
Daniel Zugris, e²M
Glen Beckham, USACE-LRL
Tom Chanda USACE-LRL



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
RAVENNA ARMY AMMUNITION PLANT
8451 STATE ROUTE 5
RAVENNA, OHIO 44266-9297

21 December 2007

Ms. Eileen Mohr
Project Manager
State of Ohio Environmental Protection Agency
Division of Emergency and Remedial Response
2110 East Aurora Road
Twinsburg, Ohio 44087

Re: Progress Update for Rocket Ridge
Stabilization/Remedial Action Work Plans

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The Army has continued to seek and obtain funding resources for the RR work, as demonstrated by the rapid contracting and turn-around of the work plans and execution of the stream survey of November 5 - 7, 2007. Future funding resources are also continually being sought.

If you have any questions concerning this correspondence, please do not hesitate to call me at (330) 358-7312.

Sincerely,



Mark Patterson
Facility Manager
Ravenna Army Ammunition Plant

Cc:

Irv Venger, RVAAP
Mary Ellen Maly, USAEC
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Jerome Stolinski, USACE
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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Laura H. Powell, Acting Director

January 19, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
DRAFT WORKPLAN (REV 2) **DLA AREA**
RECLAMATION

CERTIFIED MAIL

Mr. Irv Venger
Acting Facility Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Dear Mr. Venger:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) has received and reviewed the document entitled: "Draft (Rev 2) Work Plan for the DLA Storage Area Reclamation - **Route 80 Tank Farm and East Ore Yard Culvert Replacement** at the Ravenna Army Ammunition Plant, Ravenna, Ohio." This document, dated January 16, 2007, was prepared for the U.S. Army TACOM Life Cycle Management Command by SpecPro under contract number DAAA09-03-C-0070.

MAJOR ISSUE:

History of the Issue:

On August 22, 2006, Ohio EPA received a copy of the draft workplan for this project. On September 11, 2006, Ohio EPA provided comments to the Army and the contractor on this project, as there are clearly environmental issues and concerns regarding this proposed project. On September 18, 2006, Ohio EPA received a copy of the responses to comments (RTC) made by other stakeholders, along with an electronic copy of the revised plan. On September 19, 2006, I sent an email to the contractor indicating (in part) the following: 1) RTC tables are to be submitted to the stakeholders prior to the revision of documents (this has consistently been the position of the Agency); 2) there were no responses to Ohio EPA's comments; and 3) Ohio EPA is to receive a hard copy of documents to be reviewed (this has also consistently been the position of the Agency), because none of these requirements were met by the contractor. In response to a voice mail from the contractor, on September 22, 2006, I re-sent Ohio EPA's comments (the contractor indicated that the comments had not been received) via email and clearly stated that Ohio EPA has involvement in this project. It is not clear to me why the contractor would not be aware of our involvement, since during the course of this time frame, I had been getting emails from the contractor regarding the potential use of fill soil at the Route 80 tank farm from another area of concern (AOC). Additionally, in Ohio EPA's September 22, 2006 email, Ohio EPA asked for responses to our comments and stated that after reviewing those, we would review the revised workplan. Responses to comments were never received at Ohio EPA, nor was a hard copy of "revision 1" of the workplan received.

MR. IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
JANUARY 19, 2007
PAGE 2

On January 16, 2007, Ohio EPA received a hard copy of the second revision of the workplan, along with the RTC table for Ohio EPA comments.

Problems: Ohio EPA has several concerns with the manner in which this project is being handled/coordinated:

1. It is unclear how to make the contractor understand that RTCs should be received prior to revising and re-submitting workplans. This has been stated verbally, and in writing, numerous times by this Agency. In the future, if this occurs (receiving both at the same time), Ohio EPA will return the documents to the contractor without conducting a review.
2. The contractor either is not aware of the requirements of the Directors Final Findings and Orders, or believes that they do not apply to their activities. Ohio EPA's position is that this project has environmental considerations, and the Orders are applicable. Future submissions from this contractor will be scrutinized in light of the Orders. It is requested that the contractor read and be familiar with the Order. On the hierarchy list of governing documents for this installation, the Order is first on the list, and we expect this to be recognized as such.
3. Lack of compliance with the Orders will be met with an automatic Notice of Violation (NOV) to the Army. There will be no discussion on this issue. Ohio EPA has been more than patient with all of the contractors working at RVAAP. In this instance alone, the contractor failed to adhere to the fifteen (15) day timeframe for providing RTCs or asking for a RTC meeting; and failed to adhere to the thirty (30) day timeframe for providing a revised document. The document is over three (3) months late. This is not acceptable to Ohio EPA.

SPECIFIC COMMENTS:

4. Please adhere to the accepted RVAAP nomenclature for workplans and reports. It is unclear as to why the contractor is using terms such as revision 1, revision 2, etc.
5. (Previous Ohio EPA Comment # 2) - Thank you for the Webster II definition of "remnant." On April 20, 2006, Ohio EPA conducted an inspection of the Defense Logistics Agency (DLA) storage areas. A letter was submitted to your attention on April 24, 2006 that summarized our findings. One of the issues that we raised was the significant amount of material left on the ground surface after the removal of the majority of the ore. The intent of the original comment was to indicate that in areas where the ore has been removed, there is a considerable amount of remaining ore, i.e., by no means is it a small amount. Please revise the text to indicate more accurately the amount of material left in place.
6. (Previous Ohio EPA Comment # 3 and RVAAP comment # 14) - Ohio EPA disagrees with the RVAAP assessment that we have no jurisdiction over the DLA areas. Clearly, the land cannot be used (especially in the eastern ore area) for Ohio Army National Guard (OHARNG) training, due to environmental issues. Please provide the contractor with a copy

of Ohio EPA's April 24, 2006 letter, which details the results of our inspection, such that it is included in the next revision of the workplan.

7. (Previous Ohio EPA Comment # 4 and # 13) - In these sections, provide a cross-reference to the analytical results for the talc sample, which is in Appendix A.
8. (Previous Ohio EPA Comment # 8) - This comment was not addressed by the contractor in the revised workplan. Please revise as previously requested. Soil samples at the Route 80 tank farm were solely tested for radioactive constituents, unless the contractor has additional information (which should then be provided). If contamination is encountered during any of the proposed activities, will the contractor be ready to handle them?
9. (Previous Ohio EPA Comment # 9) - The response to this comment says to "see answer to comment 9." The RTC should clearly indicate what RTC table the contractor is referring to. Revise the hazard inventory as requested, just don't remove it from the text.
10. (Page 6, line 8) - Capitalize "Safety."
11. (Page 7, lines 35-36) - Revise text to read: "These analytical results will be reviewed by Ohio EPA to fulfill the requirement..."
12. The text on page 7 (line 41) indicates that approximately two (2) acres of the site will be disturbed. Be aware of and comply with the applicable stormwater and wetland regulations. Coordinate all activities closely with Ms. Katie Elgin and Mr. Tim Morgan of the OHARNG. (Also applicable to previous Ohio EPA comment # 14.)
13. (Previous OHARNG Comment # 5) - The RTC indicates that this OHARNG comment was being tabled for the CRT meeting. There were no revisions made to the revised workplan. Please indicate whether or not this issue was resolved between OHARNG and the contractor and describe the agreed-upon resolution. Clearly, no comment resolution meeting was held.
14. (Previous Ohio EPA Comment # 19) - Please clarify to whom the completion report will be sent.
15. (Previous OHARNG Comment # 7) - Provide the response to this OHARNG comment regarding the Notice of Intent (NOI) in the revised text.
16. (Previous OHARNG Comment # 8) - The RTC indicates that this OHARNG comment was being tabled for the CRT meeting. Please indicate whether or not this issue was resolved between OHARNG and the contractor, and describe the agreed-upon resolution. Clearly, no comment resolution meeting was held.
17. (Page 10) - Add the Director's Final Findings and Orders to the reference list.

18. (Appendix B) - Ohio EPA did not review the attached Scope of Work (SOW) as it was being developed. Given that a contract has been let, the Agency will not review an after the fact document upon which the contract was based.
19. (Appendix C) - In the revised workplan, please provide a signed approval sheet for the health and safety plan (HASP).
20. (Previous Ohio EPA Comment 22) - In this section, provide a cross-reference to the analytical results for the talc sample that is in Appendix A.
21. (Previous Ohio EPA Comment 24) - See comment # 5 above, which details Ohio EPA's response to the "remnant" issue.
22. (Previous Ohio EPA Comment # 30 and new page C-7) - Add in "action levels" as previously requested. If there is a potential need to upgrade the level of personal protective equipment (PPE), then that decision will need to be based upon some tangible information, such as air monitoring, etc.
23. (Previous Ohio EPA Comment # 32) - This comment was not addressed by the contractor in the revised HASP. Please revise as previously requested. Soil samples at the Route 80 tank farm were solely tested for radioactive constituents, unless the contractor has additional information (which should then be provided). If contamination is encountered during any of the proposed activities, will the contractor be ready to handle them?
24. (Page C-8) - On the Identification Worksheet:
 - a. as required, underline the fire hazards;
 - b. see previous Ohio EPA comment regarding the potential for coming into contact with hazardous materials;
 - c. 40 hour HAZWOPER training and OSHA 8 hour refreshers are required;
 - d. since 40 hour training is required; medical exams are required; and,
 - e. since heavy equipment will be utilized, noise monitoring should be conducted.
25. (Page C-10) - The text indicates that table 2-2 contains the training requirements. This is not the case, as this table presents the activity hazards analysis. Provide the training requirements in the revised workplan.
26. (Page C-10) - Provide an explanation for why sections 6.0 and 7.0 were removed from this version of the workplan.
27. (Figure 9-1) - The map detailing the route to the hospital is not legible. Please provide a legible copy.

Please provide RTC tables or request a comment resolution meeting within 15 days of the receipt of this correspondence. Please ensure that the contractor provides a revised workplan within 30 days

MR. IRV VENGER
RAVENNA ARMY AMMUNITION PLANT
JANUARY 19, 2007
PAGE 5

of the receipt of this correspondence. If you have any questions concerning this correspondence, please do not hesitate to contact me at (330) 963-1221.

Sincerely,



Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR
Mark Krivansky, AEC
Elyse Meade, TACOM
Jeff Gollon, TACOM
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Katie Elgin, OHARNG RTLS
Glen Beckham, USACE Louisville
John Jent, USACE Louisville
Chantelle Carroll, SpecPro

ec: Mike Eberle, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR



An 8(a) Certified Alaska Native Corporation (ANC)

Ravenna Army Ammunition Plant, Bldg. 1038
8451 State Route 5
Ravenna, OH 44266

330-358-1753
330-358-1754 Fax

March 1, 2007

Ms. Eileen Mohr
Ohio Environmental Protection Agency
2110 E. Aurora Road
Twinsburg, OH 44087

Reference: Contract No. DAAA09-03-C-0070: Draft Work Plan for the DLA Storage Area Reclamation – Route 80 Tank Farm and East Ore Yard Culvert Replacement, Ravenna Army Ammunition Plant, Ravenna, OH.

Subject: Response to January 19, 2007 Comments – Draft Work Plan

Dear Ms. Mohr:

On behalf of Mr. Irving Venger, Facility Manager of the Ravenna Army Ammunition Plant, SpecPro, Inc. has prepared these Responses to Comments. This has been prepared to address your January 19, 2007 comments concerning the revised DLA Work Plan. It is apparent through past correspondence and phone conversations that the Army and Ohio EPA do not agree on the classification of this project. We recognize that the Ohio EPA may not agree with all of these responses, however, they were written with the intention of respectfully addressing all of the Ohio EPA's concerns expressed in the January 19, 2007 letter.

Comment No. 1 – It is unclear how to make the contractor understand that RTCs should be received prior to revising and re-submitting workplans. This has been stated verbally, and in writing, numerous times by this Agency. In the future, if this occurs (receiving both at the same time), Ohio EPA will return the documents to the contractor without conducting a review.

Response – We apologize for not explaining in the cover letter why the revised workplan was submitted with the last RTC submittal. The revised workplan attached to the RTC was not intended as a submittal to be reviewed Ohio EPA as such, only as a demonstration of the substantial revisions described in the RTC. In hindsight, we now understand the Ohio EPA's position and realize that an explanation was needed in the RTC submittal.

RECEIVED

MAR 01 2007

OHIO EPA NEDO

Comment No. 2 – The contractor either is not aware of the requirements of the Directors Final Findings and Orders, or believes that they do not apply to their activities. Ohio EPA's position is that this project has environmental considerations, and the Orders are applicable. Future submissions from this contractor will be scrutinized in light of the Orders. It is requested that the contractor read and be familiar with the Order. On the hierarchy list of governing documents for this installation, the Order is first on the list, and we expect this to be recognized as such.

Response – In the Army's opinion, this project is classified as a demolition project and not subject to the Director's Findings and Orders (F&O's). We understand that the Ohio EPA does not agree with the Army's opinion and feels that this project is subject to the F&O's. These differences in opinion over this project may not be resolved any time soon, but the Army needs to move forward on this project while the funding is still available. The Army is committed to performing this project in an environmentally responsible manner.

Comment No. 3 – Lack of compliance with the Orders will be met with an automatic Notice of Violation (NOV) to the Army. There will be no discussion on this issue. Ohio EPA has been more than patient with all of the contractors working at RVAAP. In this instance alone, the contractor failed to adhere to the fifteen (15) day timeframe for providing RTCs or asking for a RTC meeting; and failed to adhere to the thirty (30) day timeframe for providing a revised document. The document is over three (3) months late. This is not acceptable to Ohio EPA.

Response – The F&O timetable for document submittals and review was not followed by the Army (and their contractor) because it is the Army's opinion that the F&O's are not applicable for this project. We understand that the Ohio EPA does not agree with this.

Comment No. 4 – Please adhere to the accepted RVAAP nomenclature for workplans and reports. It is unclear as to why the contractor is using such terms a revision 1, revision 2, etc.

Response – In keeping with the Army's opinion that this is not an F&O document, the accepted F&O RVAAP nomenclature was not used. The documents were labeled as Revision 1, Revision 2 to help distinguish between different draft versions.

Comment No. 5 – (Previous Ohio EPA Comments #2) -Please revise the text to indicate more accurately the amount of material left in place.

Response – The fourth paragraph of Work Plan Section 1.1 concerning the amount of ore remaining in the East Ore yard has been revised as follows:

“... The pile footprints varied in length from approximately 400 to 600 feet and were approximately 20 to 40 feet wide. The ore from all nearby piles has been shipped off-site. A small amount of ore remains in the pile footprint. The disposition of this residue remains in dispute between the EPA, Army and DLA. Because a culvert along one of the access lanes west of South Service Road has collapsed, surface water runoff now flows by across the access road to a drainage ditch located along South Service Road. The drainage ditch that receives runoff water from this area is not functioning properly and requires brush clearing. No ore pile footprints will be disturbed during the culvert replacement activities.”

Comment No. 6 – (Previous Ohio EPA Comment #3 and RVAAP comment #14) – Ohio EPA disagrees with the RVAAP assessment that we have no jurisdiction over the DLA areas.....Please provide the contractor with a copy of Ohio EPA's April 24, 2006 letter, which details the results of our inspection, such that it is included in the next revision of the workplan.

Response – The Army understands that the Ohio EPA considers this project to be subject to the F&O's, however, the Army considers this project to be a demolition project which is not subject to the F&O's. In light of this, the Army respectfully disagrees that this letter should be included with the Work Plan.

Comment No. 7 – (Previous Ohio EPA Comment #4 and #13) – In these sections, provide a cross-reference to the analytical results for the talc sample, which is in Appendix A.

Response – The following sentences will be added to the 2nd paragraph in Section 1.1 of the Work Plan: “The talc was analyzed in December 1998 by AT Laboratories, Boardman, Ohio for asbestos and other fibers. None were detected. The analytical results are presented in Appendix A.”

Comment No. 8 – (Previous Ohio EPA Comment #8) – This comment was not addressed by the contractor in the revised workplan. Please revise as previously requested.....If contamination is encountered during any proposed activities, will the contractor be ready to handle them?

Response – The following sentences will be added to the 2nd paragraph in section 2.1 of the Work Plan:

“As with any demolition and maintenance project, it is possible that hazardous chemicals or contaminated materials may be encountered. If any suspicious substances are encountered, workers at the site are to stop work, notify the Site

Safety and Health Officer, and await further instructions. The Site Safety Officer will notify the RVAAP Facility Manager, assess the situation, and in consultation with the Army, decide on the appropriate course of action."

Comment No. 9 – (Previous Ohio EPA Comment #9) – The response to this comment says to "see answer to comment 9." The RTC should clearly indicate what RTC table the contractor is referring to. Revise the hazard inventory as requested, just don't remove it from the text.

Response – The hazard inventory table was removed from the text both in the Work Plan and Health and Safety Plan. The table was replaced by Table 2-1 "Hazard Identification Worksheet" located in the Health and Safety Plan.

Comment No. 10 – (Page 6, line 8) – Capitalize "Safety."

Response – This word will be capitalized as requested.

Comment No. 11 – (Page 7, line 8, concerning sampling and analysis of proposed fill and topsoil) – Revise text to read: "These analytical results will be reviewed by Ohio EPA to fulfill the requirement..."

Response – The sentence will be revised to read: "The analytical results will be submitted to OHARNG for approval that the fill and/or topsoil dirt will meet the standards for backfill and topsoil at RVAAP."

Comment No. 12 – The text on page 7 (line 41) indicates that approximately two (2) acres of the site will be disturbed. Be aware of and comply with the applicable stormwater and wetland regulations. Coordinate all activities closely with Ms. Kate Elgin and Mr. Tim Morgan of the OHARNG. (Also applicable to previous Ohio EPA Comment #14).

Response – Agreed. This project will be performed in close contact with OHARNG representatives. All applicable stormwater and wetland regulations will be complied with.

Comment No. 13 – (Previous OHARNG Comment #5) - ...Please indicate whether or not this issue was resolved between OHARNG and the contractor and describe the agreed-upon resolution...

Response – This issue has been resolved with OHARNG. This project will be completed in close consultation with OHARNG. It is intended that the fill be placed where necessary in the Rt. 80 Tank Farm area to enhance and expand the wetlands in this area.

Comment No. 14 – Please clarify to whom the completion report will be sent.

Response – The following has been added to the end of Section 5.0 “Deliverables”:

“The Completion Report will be submitted to:

- Mr. Irving Venger, RVAAP (2 hard copies, 2 electronic copies);
- Ms. Katie Elgin, OHARNG (1 hard copy, 1 electronic copy);
- Ms. Elyse Meade, USATACOM (1 electronic copy)
- Mr. Tom Lederle, BRAC Program Manager (1 electronic copy)

Comment No. 15 – (Previous OHARNG Comment #7) – Provide the response to this OHARNG comment regarding the Notice of Intent (NOI) in the revised text.

Response – The current requirement for projects that disturb more than 1 acre of wetland is for the contractor to apply for a separate NPDES permit. To do this, the contractor must also prepare and submit for review a Storm Water Pollution Prevention Plan (SWPPP). In consultation with Mr. Tim Morgan of OHARNG, it was decided that the NPDES permit will not be required for the tank removal and culvert repair as both of these items will not disturb more than 1 acre. A NPDES permit will be required for the fill work at the Rt. 80 site.

The following will be added to the Work Plan, Section 3.4: “A Notice of Intent (NOI) for Coverage under Ohio EPA Storm Water Construction General Permit will be applied for once a Storm Water Pollution Prevention Plan (SWPPP) is approved for the Rt. 80 site. Earth work will not commence at this site until the permit is received.”

Comment No. 16 – (Previous OHARNG Comment #8, concerning providing OHARNG with the proper seed mixture to be used at the Rt. 80 site) - ...Please indicate whether or not this issue was resolved between OHARNG and the contractor, and describe the agreed upon resolution....

Response – This issue has been resolved with OHARNG. Under separate correspondence, they were presented with a choice of several seed mixtures and have selected a mixture that is most appropriate to the area. The seeding will be performed in close consultation with OHARNG representatives.

Comment No. 17 – (Page 10) – Add the Director’s Findings and Orders to the reference list.

Response – The Army respectfully declines to honor this request. It is the Army’s position that the Director’s Findings and Orders do not apply to this project.

Comment No. 18 – Ohio EPA will not review the attached Scope of Work (SOW) as it was being developed. Given that a contract has been let, the Agency will not review an after the fact document upon which the contract was based.

Response – Acknowledged.

Comment No. 19 – (Appendix C) – In the revised workplan, please provide a signed approval sheet for the health and safety plan (HASP).

Response – A signed approval sheet will be provided for the Final HASP as requested.

Comment No. 20 – (Previous Ohio EPA Comment #22) – In this section, provide a cross-reference to the analytical results for the talc sample that is in Appendix A.

Response – The following sentences will be added to the 2nd paragraph in Section 2.1 of the Health and Safety Plan: "The talc was analyzed for asbestos and other fibers. None were detected. The analytical results are presented in Appendix A of the project Work Plan."

Comment No. 21 – (Previous Ohio EPA Comment # 24) – See comment # 5 above, which details Ohio EPA's response to the "remnant" issue.

Response – The third paragraph of Health and Safety Plan Section 1.2 concerning the amount of ore remaining in the East Ore Yard has been revised as follows:

"...The pile footprints varied in length from approximately 400 to 600 feet and were approximately 20 to 40 feet wide. The ore from all nearby piles has been shipped off-site. A small amount of ore remains in the pile footprint. The disposition of this residue remains in dispute between the EPA, Army and DLA. Because a culvert along one of the access lanes west of South Service Road has collapsed, surface water runoff now flows by across the access road to a drainage ditch located along South Service Road. The drainage ditch that receives runoff water from this area is not functioning properly and requires brush clearing. No ore pile footprints will be disturbed during the culvert replacement activities."

Comment No. 22 – (Previous Ohio EPA Comment #30 and new page C-7) – Add in "action levels" as previously requested. If there is a potential need to upgrade the level of personal protective equipment (PPE), then that decision will need to be based upon some tangible information, such as air monitoring, etc.

Response – The last paragraph in Section 1.2 has been revised as follows:

"All work will be performed in Level D PPE. As with any demolition and maintenance project, it is possible that hazardous chemicals or contaminated materials may be encountered. If any suspicious substances are encountered, workers at the site are to stop work, notify the Site Safety and Health Officer (SSHO), and await further instructions. The SSHO will notify the RVAAP Facility Manager, assess the situation, and in consultation with the Army, decide on the appropriate course of action. These actions may include instituting engineering controls, new protective procedures, or upgrading PPE as necessary."

Comment No. 23 – (Previous Ohio EPA Comment #32) – This comment was not addressed by the contractor in the revised workplan. Please revise as previously requested.....If contamination is encountered during any proposed activities, will the contractor be ready to handle them?

Response – Please see the response to Comment No. 22 above.

Comment No. 24 – (Page C-8) – On the Identification Worksheet:

- a. As required, underline the fire hazards;
- b. See previous Ohio EPA comment regarding the potential for coming into contact with hazardous materials;
- c. 40 hour HAZWOPER training and OSHA 8 hour refreshers are required;
- d. since 40 hour training is required; medical exams are required; and,
- e. since heavy equipment will be utilized, noise monitoring should be conducted.

Response – Item 'a' has been underlined as requested. To eliminate the need for noise monitoring, all personnel within the 100-ft radius of operations will use hearing protection. RVAAP policy requires the 40-hour HAZWOPER training for all persons performing work at AOCs. The areas under contract are not AOCs and therefore HAZWOPER training is not a requirement. Table 2-2 has also been revised to address this. For item 'b', the potential for contacting hazardous materials has been checked on the table. Table 2-2 has been revised to address potential exposure to hazardous substances. (Safety and Health Hazard = Hazardous Materials, Controls = Stop work. Notify SSHO and RVAAP Facility Manager. SSHO to assess situation and institute engineering controls, additional safety procedures, and/or upgraded PPE, as necessary)

Comment No. 25 – (Page C-10) – The text indicates that table 2-2 contains the training requirements. This is not the case, as this table presents the activity hazards analysis. Provide the training requirements in the revised workplan.

Response – Section 4.0 “Training” has been revised to read: “Training requirements are outlined in the FSHP. As this site is not an AOC; the 40-hour HAZWOPER, 8-Hour refresher, and medical monitoring are not considered mandatory for personnel working on these sites.”

Comment No. 26 – (Page C-10) – Provide an explanation why sections 6.0 and 7.0 were removed from this version of the workplan.

Response – It was not intended that these sections be omitted in the revised workplan and we are not sure why the Ohio EPA did not have these sections included in their copy. These sections were not revised from the first revision of the workplan, and are provided below:

“6.0 STANDARD OPERATING SAFETY PROCEDURES

Standard operating safety procedures are described in the FSHP.

7.0 SITE CONTROL MEASURES

Site control measures are described in the FSHP. No formal site control is expected to be necessary for this work, as the work areas are somewhat remote and fenced, and bystanders are not anticipated. The RVAAP installation is not open to the public, and only authorized personnel are allowed in the project areas. If the SSHO determines that a potential exists for unauthorized personnel to approach within 25 feet of a work zone or otherwise be at risk due to proximity, then exclusion zones will be established as described in the FSHP.”

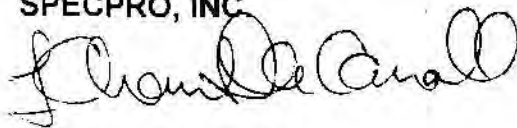
Comment No. 27 – (Figure 9-1) – The map detailing the route to the hospital is not legible. Please provide a legible copy.

Response – A legible copy of the map will be provided as requested.

The Army considers these projects simple construction/demolition operations and as such, the F&O document submittal timetable does not apply. Work plans were submitted as part of an ongoing courtesy to the OEPA under previous understandings that there would be no review because of the nature and funding of the project. However in the spirit of cooperation, as you have requested, we have submitted responses to your questions by March 1, 2007. Upon receipt of your comments, we will prepare a response and will submit a final work plan.

Thank you.

Sincerely,
SPECPRO, INC



L. Chantelle Carroll
Program Manager

cc: Mr. Irving Venger, RVAAP
Ms. Elyse Meade, TACOM (electronic copy)
Mr. Tom Lederle, BRAC Program Manager (electronic copy)
MAJ Ed Meade, OHARNG
Mr. Tim Morgan, OHARNG
Ms. Katie Elgin, OHARNG

From: Eileen Mohr
To: Brillinger, 'Al'; ccarroll@specpro-inc.com; Elgin, Kathryn S NGOH; irving.b.venger@us.army.mil; Lederle, Thomas E Mr ACSIM; Meade, Ed; Meade, Elyse E Ms TACOM-RI; timothy.m.morgan@us.army.mil
Date: 3/2/2007 1:56:36 PM
Subject: DLA Areas - Rt 80 Tank Farm and East Ore Yard Culvert

Al and Irv

I have received and reviewed the responses to Ohio EPA comments on the above-referenced project.

In a number of your responses, there is a reference to a "disagreement" between the Army and the Ohio EPA on the scope of the work to be conducted and the role of the Ohio EPA. I remind you that the Ohio EPA has been involved (by the Army's request) at the Route 80 tank farm area for longer than SpecPro, or BRAC, have been involved. Additionally at the east ore yard area, there are numerous pieces of correspondence from Ohio EPA that indicates that at some point in time, there will need to be clean-up at the East Ore Yard... because the condition that this area is in, it cannot be used for the proposed future use of the OHARNG (helicopter training). The amount of residual ore that remains on the ground not only precludes the Guard's proposed use of the area, but clearly represents soil contamination with a potential impact to the underlying groundwater. It is immaterial to this Agency which pot of Army money is utilized to investigate and remediate these areas. Perhaps the DLA lease money could be put to this use.

Comment # 1: The answer is non-responsive. The contractor is advised that RTCs will be submitted prior to a document being revised. This saves every time, effort, and money, which should be acceptable to both SpecPro and the Army. This is the way projects were handled even before the negotiation and signing of the Orders - which were, I remind you, initiated by the Army.

Comment #4 - The nomenclature that was requested in terms of iterations of workplans and reports is something that was determined well before the Findings and Orders were signed. This was an agreement that was reached between the Army, USACE, OHARNG, and Ohio EPA. It is expected that this agreement will be honored by SpecPro and BRAC.

Comment #5: Remove from the proposed text the statement that "A small amount of ore remains in the pile footprint." Having walked these areas, the Ohio EPA does not consider the amount of ore to either be a "remnant" or "small amount." Additionally remove the statement that "The disposition of this residue remains in dispute between the EPA, Army, and the DLA." It is the position of Ohio EPA that this material will ultimately be dealt with by the Army using an appropriate funding source, and it is not the place of a contractor to put into a workplan that the parties are in "dispute."

Comment #6: The Ohio EPA is okay with not putting the requested letter in the revised workplan. However, the position of the Ohio EPA remains the same with respect to the applicability of the Orders.

Comment #8 - In the event that contamination is encountered, it is not likely that the Army will be the key source in terms of how to deal with it. If contamination is encountered and is not dealt with properly, there is the likelihood that Ohio EPA will be involved on the back end when a waste situation has been created. If wastes are not properly handled by the Army, then there is always the possibility of hazardous waste or solid waste involvement and violation letters being submitted to the Army's attention. In the event that this occurs and given the Army's position that Ohio EPA should have no involvement in these activities and that the Orders do not apply... any potential lumps will need to be borne by the Army. Please do not "answer shop" with various divisions/districts within the Ohio EPA.

Comment #11 - Revise the text as previously requested.

Comment #14 - The completion report needs to be submitted to Ohio EPA.

Comment #17 - Please revise as requested.

Comment #21 - Remove from the proposed text the statement that "A small amount of ore remains in the pile footprint." Having walked these areas, the Ohio EPA does not consider the amount of ore to either be a "remnant" or "small amount." Additionally remove the statement that "The disposition of this residue remains in dispute between the EPA, Army, and the DLA." It is the position of Ohio EPA that this material will ultimately be dealt with by the Army using an appropriate funding source, and it is not the place of a contractor to put into a workplan that the parties are in "dispute."

Comment #22 - Who from the Army will be present on site to make a qualified determination if PPE needs to be upgraded?

Comment #23 - See comment #22 above.

Comment #24 - I do not understand the position that the Army is taking regarding 40 hour training and 8 hour refresher. The previous facility manager made it abundantly clear that anyone working out at RVAAP in these areas needed the requisite training and medical monitoring. Also - if you look at the answers to other comments, there is an indication that, if needed, PPE etc. will be upgraded. If you don't have people with the required training, how would you then upgrade their PPE? Theoretically, you would need to get in a new set of workers with the required training - costing you more in the long run. From the Ohio EPA's perspective, this type of position is short-sighted from safety, cost, and liability viewpoints. Bottom-line: you need to have people on site with proper training... they are available out there.

Comment #25 - see comment #24 above.

That's it.

Eileen

Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response
2110 East Aurora Road
Twinsburg, OH 44087
330-963-1221
330-487-0769 (FAX)
email: Eileen.Mohr@epa.state.oh.us

CC: Bonnie Buthker; Glen.Beckham@lrl02.usace.army.mil; mark.krivansky@us.army.mil;
Mohr, Eileen; Todd Fisher



State of Ohio Environmental Protection Agency

Northeast District Office

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TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

March 06, 2007

RE: RAVENNA ARMY AMMUNITION PLANT
PORTAGE/TRUMBULL COUNTIES
DLA AREAS AT RVAAP

Mr. Thomas Lederle
Assistant Chief of Staff for
Installation Management
ATTN: DAIM-BD (Tom Lederle)
600 Army Pentagon
Washington, DC 20310-0600

CERTIFIED MAIL

Dear Mr. Lederle:

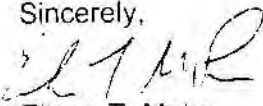
On March 01, 2007, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Emergency and Remedial Response (DERR) received correspondence from the contracting firm SpecPro, on behalf of the Ravenna Army Ammunition Plant (RVAAP) acting facility manager. This correspondence was submitted to Ohio EPA in response to comments that the Agency had made regarding the proposed projects being sponsored by the Base Re-Alignment and Closure Office (BRACO) at the Route 80 Tank Farm and the Eastern Ore Yards.

Within the March 01, 2007 correspondence, there are several references to the Army's position that the proposed work is "not subject to the Director's Findings and Orders;" and that the disposition of the ore material left on the ground "remains in dispute between the EPA, Army and DLA." For your convenience, I have enclosed a copy of my original correspondence, dated January 19, 2007 (as some of my comments were abbreviated in the response letter); the March 19, 2007 correspondence from the contractor on behalf of the Army; and my return email, dated March 02, 2006.

For clarification purposes, can you please let me know if the March 01, 2007 correspondence is formally invoking a dispute resolution process on behalf of the Army? And, if so, can you please direct me to the first level of authority within your organization to whom I need to begin to resolve this issue.

Thank you for your attention to this matter. I can be reached at (330) 963-1221, if you have any questions.

Sincerely,


Eileen T. Mohr
Project Manager
Division of Emergency and Remedial Response

ETM/kss

cc: Bonnie Buthker, Ohio EPA, SWDO, DERR

Irv Venger, RVAAP

ec: Mike Eberle, Ohio EPA, NEDO, DERR

Todd Fisher, Ohio EPA, NEDO, DERR

lv

With the signing of the ROD, it looks like Shaw can now submit the Notice of Intent (NOI) for construction **storm** water to the EPA. Attached is the NOI for your signature. I'm not sure how you would like to get it back to me (snail mail or electronically if you have an electronic signature). Shaw will submit the NOI with fee (\$200) and then send out the final version of the Storm Water Pollution Prevention Plan. Let me know if this works for you.

On another note, I'm not sure if you contacted Maj. Meade regarding Shaw's proposed trailer placement on RTL's property, but I tried to call him as well several times but could not reach him. I will keep trying.

Thanks

David C. Crispo, P.E.
Project Engineer
Shaw Environmental & Infrastructure
100 Technology Center Drive
Stoughton, MA 02072
617.589.8146 direct
617.589.2160 fax
www.shawgrp.com

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The Shaw Group Inc.

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Notice of Intent (NOI) For Coverage Under Ohio Environmental Protection Agency General Permit

Return to OCAISO 7-6-07

(Read accompanying instructions carefully before completing this form)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment D of the NOI instructions for the appropriate processing fee)

I. Applicant Information/Mailing Address

Company (Applicant) Name: Base Realignment and Closure Office

Mailing (Applicant) Address: Ravenna Army Ammunition Plant, 8451 State Route 5

City: Ravenna State: Ohio Zip Code: 44266

Contact Person: Mr. Irving Venger Phone: (330) 358-7312 Fax: (330) 358-7314

Contact E-Mail Address: Irving.B.Venger@us.army.mil

II. Facility/Site Location Information

Facility Name: Ravenna Army Ammunition Plant

Facility Address/Location: 8451 State Route 5

City: Ravenna State: Ohio Zip Code: 44266

County(ies): Portage and Trumbull

Township(s): _____

Facility Contact Person: Mr. Irving Venger Phone: (330) 358-7312 Fax: (330) 358-7314

Facility Contact E-Mail Address: Irving.B.Venger@us.army.mil

Quarter: _____ Section(s): _____ Range: _____

Receiving Stream or MS4: Load Lines 1, 2 and 3 drain to Sand Creek; Load Line 4 drains to Kirwan Reservoir

If aware of a state nature preserve within 1,000 feet of the facility/site, check here: ☐

Enter river code here, if discharge is to a river designated scenic, wild, or recreational, or to a tributary within 1,000 feet (see instructions): _____

General Permit Number: OHC000002 Construction Storm Water

Initial Coverage: ☒

Renewal Coverage: ☐

Type of Activity: Construction SW / Darby SW - 1 to 5.99 acres disturbed Fee = \$200

SIC Code(s): _____

Existing NPDES Permit Number: _____

ODNR Coal Mining Application Number: _____

Outfall	Design Flow (MGD)	Latitude	Longitude
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Other DSW Permits Required: _____

Proposed Project Start Date (MO DY YR): 08/01/07 Estimated Completion Date: (MO DY YR): 11/30/07

Total Land Disturbance (Acres): 4.50 MS4 Drainage Area (Square Miles): _____

Payment Information: Check # _____ Check Amount: _____ Date of Check: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Name: Irving Venger

Title: RVAAP Facility Manager

Applicant Signature: Irving Venger

Date: July 6, 2007