



Department of Energy

Idaho Operations Office
1955 Freemont Avenue
Idaho Falls, Idaho 83415

October 30, 2008

Nicholas Ceto, INL Project Manager
EPA Region 10
309 Bradley Landing, Suite 115
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Daryl F. Koch, FFA/CO Manager
Waste Management and Remediation Division
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255

SUBJECT: Transmittal of the Operable Unit 10-04 Pre-final Inspection Report for the Phase II Remedial Action (WDP-RWMC-08-065)

Dear Mr. Ceto and Mr. Koch:

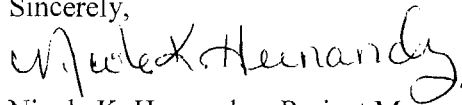
This letter transmits three copies of the Operable Unit 10-04 Pre-final Inspection Report for the Phase II Remedial Action addressing trinitrotoluene (TNT) and Royal Demolition Explosive (RDX) contaminated sites at the Idaho National Laboratory. The Agency's comments on the Pre-final Inspection Checklist have been incorporated and evidence supporting the individual checklist items is attached. Several items that were not completed at the time of the pre-final inspection, conducted on September 11, 2008, are now done and information pertaining to those items is included. Specifically, the items are as follows:

- Item 12 – The centralized soil stockpile has been removed from the Fire Station II and Range Fire Burn Area site where it was established. Photographs documenting this activity are included.
- Item 13 – The contaminated soil has been transported to the Idaho Comprehensive Environmental Response, Compensation, and Liability Act Disposal Facility for disposal. A summary shipping table documenting the individual shipments is included.
- Item 14 – The TNT and RDX fragments have been shipped off-site to an approved facility for treatment and subsequent disposal. Evidence of the shipment as well as documentation of the off-site suitability determinations for both the treatment facility and the disposal facility is included.
- Item 15 – Certification of the seed mix for compliance to specification requirements is included.

Completion of the remaining outstanding items from the pre-final inspection checklist will be documented in the draft remedial action report scheduled to be delivered to the Agencies by November 26, 2008. Additionally, a final inspection of the TNT/RDX sites was determined not necessary by the Agencies at the time of the pre-final inspection. If circumstances have changed that would warrant a final inspection please notify me as soon as reasonably possible.

If you have questions or need additional information, please contact me at (208) 526-8949 or hernannk@id.doe.gov.

Sincerely,

A handwritten signature in black ink that reads "Nicole K. Hernandez". The signature is written in a cursive style with a large, looping initial "N".

Nicole K. Hernandez, Project Manager
Idaho Cleanup Project

cc: M. Wilkening, EPA Region 10, Idaho Operations Office, 1435 N. Orchard St., Boise, ID 83706

Remedial Action Prefinal Inspection Checklist

Operable Unit 10-04, Phase II

Trinitrotoluene and Cyclotrimethylenetrinitramine Contaminated Sites



Inspection Item	Verification Information	Complete		Comments
		Yes	No	
<p>1. Verify that the remediation goals for the Fire Station II and Range Fire Burn Area have been achieved for:</p> <ul style="list-style-type: none"> • Trinitrotoluene (16 mg/kg) • RDX (4.4 mg/kg) 	Analytical Data Summary		X	Reviewed the analytical data summary for the TNT field test kit data. The 95% H-upper confidence limit for TNT is 13.2 mg/kg. The exposure point RDX concentration presented in the OU 10-04 Record of Decision was 3.7 mg/kg, below the prescribed remediation goal. No visual evidence of RDX contamination was encountered during remediation; therefore, no RDX field test kit analyses were performed. Awaiting analytical laboratory data that will be presented in the remedial action report.
<p>2. Verify that the remediation goals for the National Oceanic and Atmospheric Administration site have been achieved for:</p> <ul style="list-style-type: none"> • Trinitrotoluene (16 mg/kg) • RDX (4.4 mg/kg) • 1,3-Dinitrobenzene (6.1 mg/kg) 	Analytical Data Summary		X	Reviewed the analytical data summary for the TNT field test kit data. The 97.5% Chebyshev (mean, s_D) upper confidence limit for TNT is 7.0 mg/kg. The exposure point RDX concentration presented in the OU 10-04 Record of Decision was 1.78 mg/kg. No visual evidence of RDX contamination was encountered during remediation; therefore, no RDX field test kit analyses were performed. A field test kit does not exist for the analysis of 1,3-dinitrobenzene. Awaiting analytical laboratory data that will be required and presented in the remedial action report.

Inspection Item	Verification Information	Complete		Comments
		Yes	No	
3. Verify that the remediation goals for the Land Mine Fuze Burn Area have been achieved for: <ul style="list-style-type: none"> TNT (16 mg/kg) 	Analytical Data Summary		X	Reviewed the analytical data summary for the TNT field test kit data. The Student's-t 95% upper confidence limit for TNT is 8.8 mg/kg. Awaiting analytical laboratory data that will be presented in the remedial action report.
4. Verify that the remediation goals for the Experimental Field Station have been achieved for: <ul style="list-style-type: none"> TNT (16 mg/kg) 1,3-Dinitrobenzene (6.1 mg/kg) 	Analytical Data Summary		X	Reviewed the analytical data summary for the TNT field test kit data. The 95% approximate gamma upper confidence limit for TNT is 4.5 mg/kg. A field test kit does not exist for the analysis of 1,3-dinitrobenzene. Awaiting analytical laboratory data that will be required and presented in the remedial action report.
5. Verify that the remediation goals for the Naval Ordnance Disposal Area have been achieved for: <ul style="list-style-type: none"> RDX (4.4 mg/kg) 	Analytical Data Summary		X	Reviewed the analytical data summary for the RDX field test kit data. The 95% Chebyshev (mean, s_D) upper confidence limit for RDX is 0.6 mg/kg. Awaiting analytical laboratory data that will be presented in the remedial action report.
6. Verify that the remediation goals for Site MISC-35 have been achieved for: <ul style="list-style-type: none"> TNT (16 mg/kg) 	Analytical Data Summary	X		Reviewed the analytical data summary for the TNT field test kit data and the analytical laboratory data. The maximum TNT results are below the remediation goal of 16 mg/kg.
7. Verify that no contaminants exceed remediation goals for Site MISC-26 as defined in the OU 10-04 Record of Decision. <ul style="list-style-type: none"> Trinitrotoluene (16 mg/kg) RDX (4.4 mg/kg) 1,3-Dinitrobenzene (6.1 mg/kg) 	Analytical Data Summary	X		Reviewed analytical data summary for limitations and validation reports submitted previously to the Agencies. The maximum TNT, RDX, and 1,3-Dinitrobenzene results are below their respective remediation goals.

Inspection Item	Verification Information	Complete		Comments																
		Yes	No																	
<p>8. Verify that the sample locations and number of samples meet the requirements outlined in the "Field Sampling Plan for the Operable Units 6-05 and 10-04 Remedial Action, Phase II" (DOE/NE-ID-11133, Rev. 1).</p> <ul style="list-style-type: none"> • Fire Station II and Range Fire Burn Area • National Oceanic and Atmospheric Administration Site • Land Mine Fuze Burn Area • Experimental Field Station • Naval Ordnance Disposal Area • Site MISC-35 (characterization/confirmation) • Site MISC-26 (characterization/confirmation) 	Sample Location Maps and Analytical Data Summary	X		<p>Reviewed maps of sampling locations and analytical data summaries to confirm that the field sampling plan requirements were met.</p> <table border="0"> <tr> <td>Samples Required</td> <td>Samples Collected</td> </tr> <tr> <td>32</td> <td>32</td> </tr> <tr> <td>32</td> <td>32</td> </tr> <tr> <td>32</td> <td>10*</td> </tr> <tr> <td>32</td> <td>32</td> </tr> <tr> <td>32</td> <td>32</td> </tr> <tr> <td>10/3</td> <td>10/3</td> </tr> <tr> <td>10/None</td> <td>10/None</td> </tr> </table> <p>* Due to the small nature of the contaminated soil areas, there were ten discrete samples collected.</p>	Samples Required	Samples Collected	32	32	32	32	32	10*	32	32	32	32	10/3	10/3	10/None	10/None
Samples Required	Samples Collected																			
32	32																			
32	32																			
32	10*																			
32	32																			
32	32																			
10/3	10/3																			
10/None	10/None																			
<p>9. Verify that the Toxicity Characteristic Leaching Procedure results for the Land Mine Fuze Burn Area stockpile are below the regulatory concentration for 2,4-dinitrotoluene (0.13 mg/L).</p>	Analytical Data Summary	X		<p>The toxicity characteristic leaching procedure results for 2,4-dinitrotoluene are below the regulatory concentration of 0.13 mg/L. Reviewed the analytical limitations and validation report.</p>																
<p>10. Verify that the Toxicity Characteristic Leaching Procedure results for the Naval Ordnance Disposal Area stockpile are below the regulatory concentration for lead (5 mg/L).</p>	Analytical Data Summary	X		<p>The toxicity characteristic leaching procedure results for lead are below the regulatory concentration of 5 mg/L. Reviewed the analytical limitations and validation report.</p>																

Inspection Item	Verification Information	Complete		Comments
		Yes	No	
<p>11. Verify that the individual remediation sites have been regraded and contoured as required to match the surrounding terrain.</p> <ul style="list-style-type: none"> • Fire Station II and Range Fire Burn Area • National Oceanic and Atmospheric Administration site • Land Mine Fuze Burn Area • Experimental Field Station • Naval Ordnance Disposal Area • Site MISC-35 	<p>Visual observation Photographic records</p>		X	<p>Areas have been contoured to match surrounding terrain. Final backfill of one location at NOAA will be performed in the fall of 2008 and documented in the remedial action report.</p>
<p>12. Verify that the centralized soil stockpile has been removed from the Fire Station II and Range Fire Burn Area site where it was established.</p>	<p>Visual observation Photographic records</p>		X	<p>The soil will be transported to the Idaho CERCLA Disposal Facility use as fill material. Evidence of transfer will be provided in the remedial action report.</p>
<p>13. Verify that the contaminated soil has been transported to and disposed of at an approved facility.</p>	<p>Idaho CERCLA Disposal Facility data</p>		X	<p>The soil will be transported to the Idaho CERCLA Disposal Facility for disposal. Evidence of disposal will be provided in the remedial action report.</p>
<p>14. Verify that the TNT and RDX fragments have been transported to and disposed of at an approved facility.</p>	<p>Clean Harbors Colfax, Louisiana data and disposal facility</p>		X	<p>The TNT and RDX fragments were transported off-Site for treatment and disposal on Monday, September 15th. Off-site suitability determinations were verified for the facility. The status of the treatment and disposal and the off-Site suitability determinations for both facilities will be provided in the remedial action report.</p>
<p>15. Verify that the seed mix for revegetation complies with specification requirements.</p>	<p>Vendor data submittal</p>		X	<p>The seed mix has not yet been ordered. Information pertaining to the seed mix will be provided in the remedial action report.</p>

Inspection Item	Verification Information	Complete		Comments
		Yes	No	
16. Verify that the sites have been revegetated in accordance with specification requirements.	Photographic records		X	The sites will be revegetated in the October/November timeframe in accordance with site procedures. The status of the revegetation activities will be provided in the remedial action report.
17. Review any changes in scope from the remedial design/remedial action work plan.		X		<p>a. Dispose of TNT and RDX fragments off-Site rather than on-Site by high-order detonation at the Mass Detonation Area.</p> <p>b. Remediated TNT contamination found at NODA that was not identified in the Record of Decision.</p>
18. Verify that equipment has been decontaminated in accordance with the remedial design/remedial action work plan.	Photographic records	X		Photographic evidence provided showing that the front-end loader does not have any visible contamination.
19. Verify that institutional controls are in place, if required.	Visual observation Photographic records	X		Based on the remediation goals being achieved, institutional controls for explosives contamination will not be required. Institutional controls will continue to be required at NODA, the Experimental Field Station, and Land Mine Fuze Burn Area due to the potential presence of unexploded ordnance. Institutional controls are in place at these three locations as documented in the OU 10-04 Operations and Maintenance Report.
Additional Comments:				<p>Concurrence:</p> <p>U.S. EPA: <u>R. Matt Willy</u></p> <p>DEQ: <u>Pete Johnson</u></p> <p>DOE-ID: <u>Nicole Hernandez</u></p> <p>Date:</p> <p><u>10/6/08</u></p> <p><u>10/1/08</u></p> <p><u>9/30/08</u></p>