

**Annual Landfill Inspection Report  
Defense Reutilization and Marketing Office  
(DRMO) – Year 2004**

**Naval Submarine Base  
New London  
Groton, Connecticut**



**Engineering Field Activity, Northeast  
Naval Facilities Engineering Command**

**Contract Number N62472-02-D-0810**

**Contract Task Order 0002**

September 2005

## **PURPOSE**

The purpose of the annual landfill inspection is to evaluate the cap system and ensure that it and the associated features are functioning as designed; that is, to minimize the risk for human or environmental impacts associated with the landfilled materials beneath the cap. Features integral to the effectiveness of the DRMO Landfill cap system include institutional controls, cap areas, stormwater controls, and groundwater monitoring wells. This report presents the findings and observations from annual and supplemental inspection activities, identifies deficiencies of potential impact to the functional effectiveness of the cap system features/controls and provides recommendations of corrective measures to address the deficient items.

## **BACKGROUND**

From 1950 to 1969, the DRMO was used as a landfill and waste burning area. Non-salvageable waste items, including construction materials and combustible scrap, were burned along the Thames River shoreline, and the residue was pushed to the shoreline and partially covered. Based on the review of archived aerial photographs of the DRMO area, fill was observed in the southern portion of the site in 1934. The fill for bulkheads and docks south of the DRMO did not exist at that time. Aerial photographs from 1951 showed the land in its present configuration, except for the northwestern portion, which was not filled at that time. (TINUS, 2002)

From 1982 to 1994, assessment activities were conducted at the site in order to characterize the site and determine appropriate remedial actions. The results were used to complete a Time Critical Removal Action (TCRA) at the DRMO in January 1995. The TCRA at the DRMO consisted of the excavation and off-site disposal of contaminated soil hot spots and the in-ground spent acid tank, followed by the placement of an impervious cap in the northern portion of the DRMO property where waste materials had been placed. The cap consists of woven geotextile, a geosynthetic clay liner (GCL), and nonwoven geotextile. Approximately 12 inches of crushed stone and 3 inches of asphalt were placed over the GCL cap. A bituminous concrete surface course was added per the Navy's directive. An interim ROD for institutional controls and maintenance was signed for the DRMO in March 1998. The interim ROD consisted of the following components:

- Institutional controls that include maintenance of the existing cap, limitations on site access and restrictions on land use. Maintenance of the existing asphalt and GCL cap was to consist of regular inspections to assess the integrity and periodic repair and replacement of the asphalt layer as needed. Limitations on site access were to consist of maintaining the existing chain-link fence that surrounds the DRMO and posting signs to warn potential trespassers that a health hazard is present. Land use restrictions for the DRMO were put in place to limit activities (including, but not limited to, excavation or drilling), to prohibit residential use of property, and to restrict excessive vehicular use or any other activity that could compromise the integrity of the existing cap system;
- Groundwater monitoring to be performed in accordance with the GMP for the DRMO site. Groundwater samples were to be analyzed to evaluate whether contamination from the DRMO is migrating to the Thames River and causing an adverse ecological effect. After baseline conditions were established, the monitoring program might be revised based on the analytical data collected from the previous sampling events. After sufficient monitoring data were collected, such data would be evaluated to determine the need for additional remedial action at the site or the need to modify additional monitoring; and
- A site review was to be conducted every 5 years for 30 years to evaluate the site status and determine whether further action is necessary. (B&RE, 1998)

A site inspection was conducted at DRMO on April 10, 2001 in conjunction with the first five-year review of the site. It was found during the site inspection that the land use for the site had remained unchanged since the TCRA was completed and groundwater monitoring had been initiated. In general, the cap system is working as intended and access restrictions were in place. Deficiencies identified during the five-year review included an area of possible settlement and poor maintenance of monitoring wells and dedicated sampling equipment. (TtNUS 2002).

## **INSPECTION ACTIVITIES**

Site history and cap design was reviewed by the inspection contractor prior to inspection activities. The Operation and Maintenance (O&M) Manual for Installation Restoration Program Sites at Naval Submarine Base, New London – Volume IV DRMO (TtNUS,

2002) was used as reference to provide background for conducting the inspection at this facility.

The annual inspection was completed on 29 December 2004. The supplemental inspection was performed on 26 April 2005. Personnel conducting the supplemental inspection included Mr. Robert Tess (ECC), Mr. Fred Santos (ECC), Mr. Adam Roy (Nobis Engineering, Inc.), Mr. Mark Lewis (Connecticut Department of Environmental Protection (CTDEP)), and Mr. Greg Kemp (Gannet Flemming) who was representing the United States Environmental Protection Agency (USEPA). Supplemental inspection activities were warranted to address items that could not be properly inspected during initial inspection, gather additional documentation of landfill condition and finalize assessment of necessary corrective actions required at each site.

The inspection activities concluded that the land use for the site had remained unchanged and in general, the cap system and the associated features appear to be functioning as designed. In general, it appears that some routine maintenance is required, which if left uncorrected, may eventually affect the integrity of the cap system. These corrective actions are not time critical and can be addressed along with operation and maintenance activities during 2005. A detailed discussion of landfill inspection findings are presented in the following sections. Attachments to this report include landfill inspection checklists contained in the Landfill O&M Manual (TtNUS 2002) completed on 29 December 2004 and 26 April 2005, a deficiencies log with corrective actions (Table 1-1) completed May 2005, an annotated site map (Figure 1-1) and photographs of the deficiencies taken 29 December 2004 and 26 April 2005.

#### **INSTITUTIONAL CONTROLS**

Institutional controls are means by which access to the site and the landfilled materials is restricted to reduce the associated risks of contact. SOPA (ADMIN) New London Instruction 5090.18 restricts the use of CERCLA landfill sites at Naval Subbase at New London from any activities that may cause any surface or subsurface disturbances of soils. Examples of institutional controls include land-use restrictions, physical barriers, and posted signage. Security fencing and gates are the primary institutional controls at the DRMO Landfill.

### **Security Fencing & Gates**

Security fencing extends along the eastern and southern perimeters of the site. A sliding vehicle gate located at the southern perimeter is used to control entry to the site. Inspected fencing components included vertical support posts, screen, upper tension wire, bottom rails, screen ties, tension bars, and corner post hardware. Gate components included hinge posts, hinges, and locking hardware.

In general, the chain-link fencing and gates were found to be in good condition and working order; no evidence of trespassing or vandalism was evident. The vehicle gate was not secure during the day-time inspections, however, according to facility personnel the gate is secured daily at end-of-shift. It is to be noted that DRMO controls all access to the site and all activities on the site during working hours and restricts all access to the site via locked gate during off-hours.

During the initial inspection and the supplemental inspection vegetation along the fence line has been adequately controlled. These practices should continue to be maintained. If left uncontrolled, the vegetation would likely damage the fencing.

### **Signage**

Signage was posted on the southern entry gate in accordance with the IROD requirements. Additional signage was observed on the gate and inside the landfill perimeter that identify the site as a capped landfill to prevent potential damage to the cap system by intrusive activities.

### **CAP AREAS**

In general, the landfill cap is designed to, 1) act as a physical barrier to intrusion and minimize contact; and, 2) to minimize the infiltration of precipitation into the landfilled materials and the generation of leachate containing potentially hazardous concentrations of chemical compounds that could migrate off site.

The primary cap component at the DRMO Landfill is a geocomposite clay liner (GCL) placed over a prepared subgrade. Secondary cap components include asphalt pavement and shore-line protection (rip-rap) along the Thames River.

### **Asphalt Pavement**

Inspection of the pavement evaluated the following items: general condition of the pavement; grade/drainage features; cracks or spauling; settled areas; heaved areas; condition of adjacent sloped areas (i.e., grass slopes, shore-line protection); groundwater monitoring well penetrations; and, exposed cap components.

The asphalt grade appeared to be relatively level and consistent. A buildup of sediment was observed along the northwestern portion of the site during both inspections. This sediment build up is most likely associated with ponding (i.e., standing water).

The asphalt pavement within the cap limit was found to be in good condition. Some surficial scaring of asphalt has occurred and some minor cracks were observed but no holes penetrating the asphalt were observed during either inspection. A small area of damaged pavement was observed along the western boundary of the site. Depressions in the pavement were observed around 6MW11S and 6MW11D. Both these areas should be repaired. No exposed cap components were observed during either inspection.

Recommended corrective measures for the cap system include improvement of drainage through west perimeter jersey barriers to prevent sediment and water buildup, sealing the cracks and repair along with continued monitoring of the depressions around 6MW11S and 6MW11D. It was assessed during supplemental inspection activities that these corrective actions could be addressed along with operation and maintenance activities during 2005. Please see the attached Corrective Action Plan (Appendix A) for more information on the corrective measures and their scheduled dates.

### **STORM WATER FEATURES**

The stone lined drainage swale located at the eastern perimeter of the site was inspected and found to be in generally good condition. However, a small portion at the southern end of the swale is need of regarding to maintain proper drainage. No accumulated sediment was observed in the swale. Some leaf litter and loose brush was observed in the swale and should be removed. During the 26 April 2005 supplemental inspection, the catch basin was observed to have buildup up of leaf litter in the bottom. During the inspections, northern portions of the swale were covered with dense

vegetation around the catch basin inlet. This vegetation build up should be removed annually to maintain drainage at the site.

The shore-line rip-rap protection along the Thames River was in good condition and no indications of erosion were evident at culvert outfall area.

### **GROUNDWATER MONITORING WELLS**

During the 26 April 2005 supplemental inspection, monitoring well inspections identified repairs needed at monitoring well 6MW11D. The road box needs to be repaired/replaced and the concrete surrounding the well cover has settled forming a depression, and should be repaired. Monitoring wells 6MW4S and 6MW8S could not be found at the locations as shown in figure 1-1; their locations will be verified during the upcoming inspection. Inspections will continue in upcoming sampling events and landfill inspections.

### **HOUSEKEEPING AND MAINTENANCE**

The DRMO site is presently being used as a recycled materials depot and is operated by a private contractor. Heavy equipment storage at the site needs to be continued with supports beneath the equipment to prevent high pressure contact with the asphalt, if the depressions in certain areas continue to worsen. In general, the area was organized and neat and no housekeeping corrective actions are proposed as of this date.

### **INSPECTION SUMMARY**

In general, the DRMO Landfill is in good condition; the cap systems appear to be functioning as designed and is meeting the long-term remedial/closure objectives for the site. A few deficiencies have been noted that relate directly to maintenance issues and if left unaddressed, degradation of the cap components resulting in increased landfill operation costs is likely. The most significant defect noted was the depression located around monitoring well 6MW11D and the broken road box for the same well. The road box for the monitoring well 6MW11D needs to be replaced before the onset of winter. If the depressions around the well appear to be a continuing problem, the subsurface condition that is causing the depressions should be investigated and the appropriate corrective measures should be implemented.

Implementation of a routine maintenance program is recommended to ensure that preventable repairs are minimized and that the landfill cap system functions as

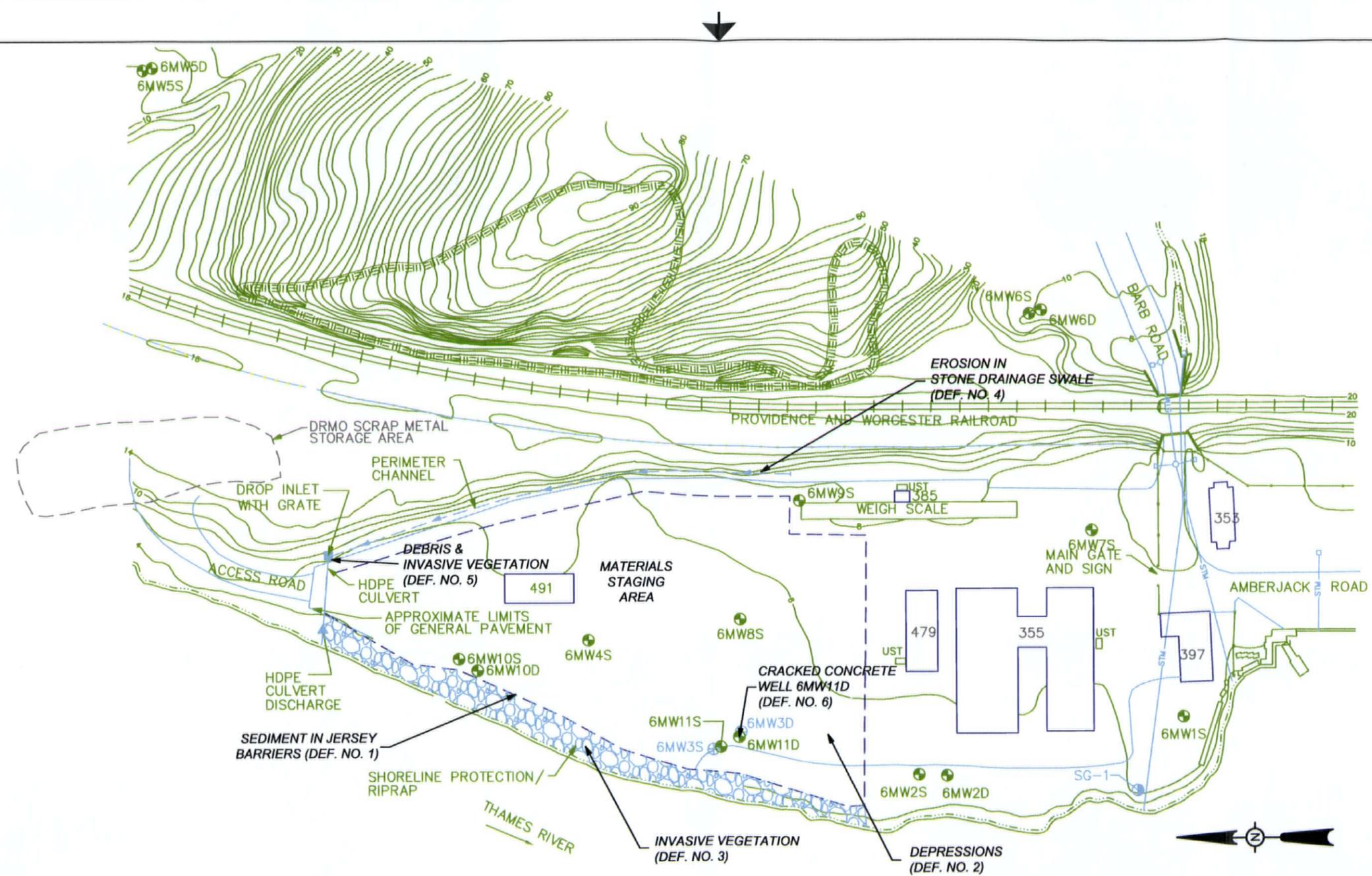
designed. Table1-1 (attached) presents a summary of the deficiencies and the recommended corrective measures.

## REFERENCES

B&RE, 1998 (March). Interim Record of Decision for Defense Reutilization and Marketing Office, Naval Submarine Base - New London, Groton, Connecticut. King of Prussia, Pennsylvania,.

OHM (OHM Remediation Services Corporation), 1995 (September). Final Report for Interim Remedial Action, Site 6, Naval Submarine Base, New London, Groton, Connecticut. Hopkinton, Massachusetts.

TtNUS. 2002 (November). Operation and Maintenance Manual for Installation Restoration Program Sites at Naval Submarine Base - New London, Groton, Connecticut. King of Prussia, Pennsylvania.



**NOTES:**  
 1. ANNOTATIONS FROM ANNUAL INSPECTIONS ON 29 DEC. 2004 AND 26 APR. 2005.  
 2. UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE.

**DRAWING REFERENCE:**  
 GENERAL SITE LAYOUT, SITE 6, NSB-NLON BY TETRA TECH-NUS (09-20-2002).

- LEGEND:**
- MONITORING WELL
  - ⊕ ABANDONED MONITORING WELL
  - STAFF GAUGE
  - APPROXIMATE LIMIT OF CAP

 <b>ENVIRONMENTAL CHEMICAL CORPORATION</b> 50 D'ANGELO DRIVE MARLBOROUGH, MA 01752 (508) 229-2270 F: (508) 229-7737	NAVAL SUBMARINE BASE - NEW LONDON, GROTON, CT			
	SITE NO. 6, DRMO LANDFILL ANNUAL INSPECTION ANNOTATED SITE MAP			
SIZE B	FSCM NO. NA	DWG NO. MAY 2005	FIGURE 1-1	REV 0
SCALE NONE	MAY 2005		SHEET 1 of 1	

H:\MAPS\10\_02 New London\_NSB Landfill Inspections\2004 Supplemental\DRMO\DRMO\_2004SIP.DWG

**Naval Submarine Base - New London, Groton, CT  
DRMO Landfill Annual Inspection - Deficiency Log  
May 2005**

**TABLE 1-1. DRMO Landfill Observed Deficiencies**

<b>No.</b>	<b>Item</b>	<b>Deficiency</b>	<b>Recommended Action 29 December 2005</b>	<b>Supplemental Comments 26 April 2005</b>
1	Asphalt Cap	Sedimentation around jersey barriers at northwest perimeter restricting surface drainage.	Remove sediment.	Sedimentation and vegetation removal should be included in base routine maintenance.
2	Asphalt Cap	Two depressions south of 6MW11D.	Investigate cause of depressions and repair.	Cause of depression is still unknown.
3	Shore-Line Protection	Vegetation growing in rip-rap protection.	Control / remove vegetation.	Control / remove vegetation.
4	Stone Drainage Swale	Southern portion is eroded in areas.	Not inspected.	Areas should be regarded to ensure proper drainage.
5	Catch-Basin Inlet	Vegetation covering CB inlet.	Control / remove vegetation.	Control / remove vegetation.
6	6MW11D road box	Depressed asphalt adjacent to road box; Cracked concrete and damaged road box.	Not inspected.	Repair asphalt, replace damaged road box and concrete; install well caps

**Naval Submarine Base  
New London, CT**

**DRMO Landfill**

**2004 Annual Inspection Photos**

**December 29, 2004  
April 26, 2005**

**Naval Submarine Base  
New London, CT  
Site 6 – DRMO Landfill  
December 29, 2004**





**DRMO Photo #3 – Damaged pavement and sediment on western portion of site**



**DRMO Photo #4 – Material storage area throughout site**



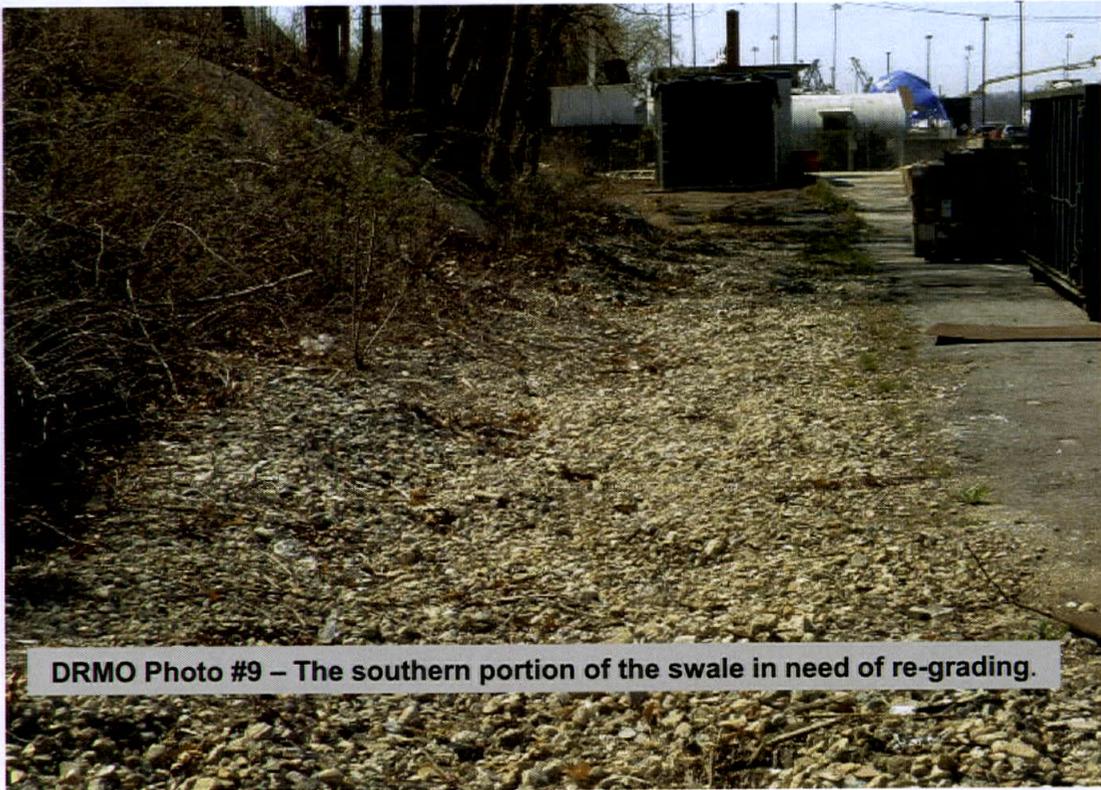
**DRMO Photo #5 – Brush pile in drainage swale in vicinity of drop inlet on northern portion of site**



**DRMO Photo #6 – Debris and vegetation around drainage outfall on northwestern portion of site**

Naval Submarine Base  
New London, CT  
Site 6 – DRMO Landfill  
April 26, 2005





**DRMO Photo #9 – The southern portion of the swale in need of re-grading.**



**DRMO Photo #10 – Damaged pavement, slight heave in pavement most likely from frost.**



**DRMO Photo #11 – Equipment stored on site. Drainage pan below equipment noted.**

**DRMO Landfill**

**Inspection Checklist – December 29, 2004**



**INSPECTION CHECKLIST**  
**SITE 6 - DRMO**  
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AREA OF INSPECTION	INSPECTED	DOES NOT APPLY	REPAIRS/MAINTENANCE NOT RECOMMENDED	REPAIRS/MAINTENANCE RECOMMENDED	NOTES AND COMMENTS
<b>4) Concrete Catch Basin</b>					
a) General Condition of Northern Catch Basin	■	□	■	□	Catch basin in good condition
b) Condition of Grate Assembly	■	□	■	□	None
c) Amount of Siltation within Catch Basin	■	□	■	□	None
<b>5) Culvert Outfall</b>					
a) General Condition of Discharge Pipe	■	□	■	□	Discharge pipe in good condition
b) Amount of Siltation within Pipe	■	□	■	□	None
c) Condition of Outlet Flare and Riprap Outfall	■	□	■	□	Riprap in good condition
<b>6) Thames River Riprap</b>					
a) General Condition of Riprap Protection	■	□	■	□	Riprap in good condition
<b>MONITORING WELLS</b>					
<b>7) 6MW1S</b>					
a) Condition of Protective Casing/River	■	□	■	□	None
b) Condition of Well Cover	■	□	■	□	None
c) Condition of Well Lock	■	□	■	□	None
d) Condition of Well Concrete Pad	■	□	■	□	None
<b>8) 6MW2S</b>					
a) Condition of Protective Casing/River	■	□	■	□	None
b) Condition of Well Cover	■	□	■	□	None
c) Condition of Well Lock	■	□	■	□	None
d) Condition of Well Concrete Pad	■	□	■	□	None
<b>9) 6MW2D</b>					
a) Condition of Protective Casing/River	■	□	■	□	Casing leans slightly to west Can still be sampled if needed
b) Condition of Well Cover	■	□	■	□	None
c) Condition of Well Lock	■	□	■	□	None
d) Condition of Well Concrete Pad	■	□	■	□	None
<b>10) 6MW3S (Abandoned near 6MW11S)</b>					
a) Condition of Surface Surrounding Location	■	□	■	□	None
<b>11) 6MW3D (Abandoned near 6MW11D)</b>					
a) Condition of Surface Surrounding Location	■	□	■	□	None

**INSPECTION CHECKLIST**  
**SITE 6 - DRMO**  
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AREA OF INSPECTION	INSPECTED	DOES NOT APPLY	REPAIRS/MAINTENANCE NOT RECOMMENDED	REPAIRS/MAINTENANCE RECOMMENDED	NOTES AND COMMENTS
12) 6MW4					
a) Condition of Protective Casing/Riser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
d) Condition of Well Concrete Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
13) 6MW5S					
a) Condition of Protective Casing/Riser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
d) Condition of Well Concrete Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
14) 6MW5D					
a) Condition of Protective Casing/Riser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
d) Condition of Well Concrete Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
15) 6MW6S					
a) Condition of Protective Casing/Riser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
d) Condition of Well Concrete Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
16) 6MW6D					
a) Condition of Protective Casing/Riser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
d) Condition of Well Concrete Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
17) 6MW7S					
a) Condition of Protective Casing/Riser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
d) Condition of Well Concrete Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event

**INSPECTION CHECKLIST**  
**SITE 6 - DRMO**  
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AREA OF INSPECTION	INSPECTED	DOES NOT APPLY	REPAIRS/MAINTENANCE NOT RECOMMENDED	REPAIRS/MAINTENANCE RECOMMENDED	NOTES AND COMMENTS
<b>18) 6MW8S</b>					
a) Condition of Protective Casing/Riser	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
d) Condition of Well Concrete Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
<b>19) 6MW9S</b>					
a) Condition of Surface Surrounding Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
b) Condition of Flush Mount Well Cover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
c) Condition of Well Lock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
					Not inspected due to equipment and/or snow cover To be inspected during annual sampling event
<b>20) 6MW10S</b>					
a) Condition of Surface Surrounding Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Crack in pavement and patch for old test boring to north of 6MW10S - Should be repaired
b) Condition of Flush Mount Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c) Condition of Well Lock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>21) 6MW10D</b>					
a) Condition of Surface Surrounding Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
b) Condition of Flush Mount Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
c) Condition of Well Lock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>22) 6MW11S</b>					
a) Condition of Surface Surrounding Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sinkhole observed around well cover Area not flush with ground surface
b) Condition of Flush Mount Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Well covers requires repair
c) Condition of Well Lock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>23) 6MW11D</b>					
a) Condition of Surface Surrounding Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sinkhole observed around well cover Area not flush with ground surface
b) Condition of Flush Mount Well Cover	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Well covers requires repair
c) Condition of Well Lock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

INSPECTION CHECKLIST  
SITE 6 - DRMO  
Page 5 of 6

<p><b>Adequacy of O&amp;M at Site:</b> (Discuss issues and observations related to the implementation and scope of O&amp;M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.)</p> <p>In general, the landfill cap system is in good condition and is functioning as designed to meet the long-term remedial requirements. Some maintenance related deficiencies should be corrected as noted above.</p>	
<p><b>Notes:</b> (Discuss and clarify any comments or observations related to this inspection.)</p> <p>None</p>	
<p><b>Deficiencies/Items Requiring Corrections:</b> (Discuss all items that were deficient during the inspection. Also provide recommendations for the deficient items - such as continued monitoring and inspection or repair and further remedial action.)</p>	
<p>Scott W. Harding, P.E. Printed Name of Inspector</p>	<p><i>Scott Harding</i> 8/30/05 Signature of Inspector / Date</p>
<p><b>Certification Statement:</b> I hereby certify that a complete and thorough inspection and evaluation of the site and implemented remedy has been performed, and that the items noted on this inspection form have been assessed with respect to the intent of the implemented remedy and the remedial action objectives established for the site.</p>	
<p>Richard D. Conant Jr. Printed Name of O&amp;M Engineer</p>	<p>Richard D. Conant Jr. Printed Name of NSB-NLON IRP Manager</p>
<p><i>Robert J. Tess</i> Signature of O&amp;M Engineer / Date</p>	<p>Digitally signed by Robert J. Tess Date: 2005 09 12 09 09:28 -0400</p> <p><i>Richard D. Conant Jr.</i> 9/15/05 Signature of NSB-NLON IRP Manager / Date</p>

INSPECTION CHECKLIST  
SITE 6 - DRMO  
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Provide additional notes or sketch as needed.

**DRMO Landfill**

**Inspection Checklist – April 26, 2005**

**INSPECTION CHECKLIST**  
**SITE 6 - DRMO**  
 Page 1 of 6

SITE NAME: Site 6 - DRMO (OU2)  
 EPA ID: CTD980906515  
 SITE LOCATION: New London County, CT  
 EPA REGION: Region 1  
 REMEDY AT SITE: Landfill Cover, Institutional Control, Monitoring

Inspection Date: April 26, 2004

INSPECTOR/COMPANY Adam Roy / Nobis Engineering, Inc

WEATHER CONDITIONS: Temperature 65-F  
 Weather Overcast  
 Other NA

TYPE OF INSPECTION:  Annual Inspection  
 Post-Major Weather Event Inspection  
 Re-Inspection of Deficient Items  
 Other 2004 Supplemental Inspection

AREA OF INSPECTION	INSPECTED	DOES NOT APPLY	REPAIR/MAINTENANCE NOT RECOMMENDED	REPAIR/MAINTENANCE RECOMMENDED	NOTES AND COMMENTS
<b>INSTITUTIONAL CONTROLS</b>					
1) Security Fencing					
a) East Perimeter Fence along Rail Road Tracks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Inspected on December 29, 2004
b) South Perimeter Fence along Storm Discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Inspected on December 29, 2004
c) Locked Entrance or Secure Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Inspected on December 29, 2004
d) No Trespassing and Security Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Inspected on December 29, 2004
e) Indications of Vandalism or Trespassing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Inspected on December 29, 2004
<b>CAP/AREAS</b>					
2) Asphalt Cap Area					
a) General Condition of Asphalt Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pavement is in good condition
b) Level or Designed Slope Within Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	One area noted with cracks in pavement/concrete (around well 6MW11D)
c) Cracks in Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	One area noted with cracks in pavement/concrete (around well 6MW11D) - need to be sealed
d) Erosion on Pavement or Adjacent Areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
e) Holes/Penetrations in Asphalt Surface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
f) Bulges in Asphalt Surface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	One area noted with cracks in pavement (around well 6MW11D)
g) Standing Water - other than above (b)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
h) Stability of Slopes and Adjacent Areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
i) Groundwater Monitoring Penetrations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Depressions observed around 6MW11S and 6MW11D Should be repaired
j) Damage to Pavement Caused by DRMO Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Some slight surficial scarring of pavement noted
k) Exposed Cap Components	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>STORMWATER FEATURES</b>					
3) Drainage Swale					
a) General Conditions of Western Drainage Swale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Grade is flat and may need regrading. Some brush present as well
b) Condition of 2-inch Gravel Lining	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
c) Amount of Siltation within Swale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Some vegetation and leaf litter

**INSPECTION CHECKLIST**  
**SITE 6 - DRMO**  
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AREA OF INSPECTION	INSPECTED	DOES NOT APPLY	REPAIRS/MAINTENANCE NOT RECOMMENDED	REPAIRS/MAINTENANCE RECOMMENDED	NOTES AND COMMENTS
<b>4) Concrete Catch Basin</b>					
<i>a) General Condition of Northern Catch Basin</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Gate Assembly</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Amount of Siltation within Catch Basin</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Organics and leaf litter built up in bottom. should be cleaned out
<b>5) Culvert Outfall</b>					
<i>a) General Condition of Discharge Pipe</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Amount of Siltation within Pipe</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Outlet Flare and Riprap Outfall</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>6) Thames River Riprap</b>					
<i>a) General Condition of Riprap Protection</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>MONITORING WELLS</b>					
<b>7) 6MW1S</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>d) Condition of Well Concrete Pad</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>8) 6MW2S</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>d) Condition of Well Concrete Pad</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>9) 6MW2D</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Slightly bent but does not interfere with sampling activities
<i>b) Condition of Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>d) Condition of Well Concrete Pad</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>10) 6MW3S (Abandoned near 6MW11S)</b>					
<i>a) Condition of Surface Surrounding Location</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>11) 6MW3D (Abandoned near 6MW11D)</b>					
<i>a) Condition of Surface Surrounding Location</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None

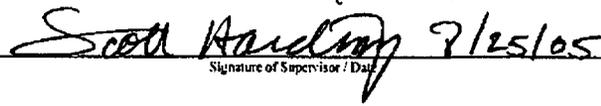
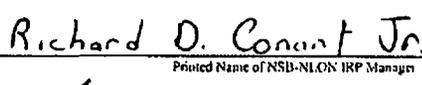
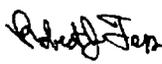
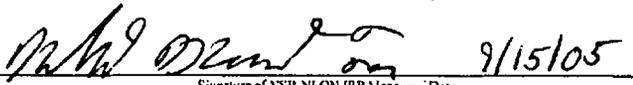
**INSPECTION CHECKLIST**  
**SITE 6 - DRMO**  
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AREA OF INSPECTION	INSPECTED	DOES NOT APPLY	REPAIRS/MAINTENANCE NOT RECOMMENDED	REPAIRS/MAINTENANCE RECOMMENDED	NOTES AND COMMENTS
<b>12) 6MW4</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Well not located
<i>b) Condition of Well Cover</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>c) Condition of Well Lock</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>d) Condition of Well Concrete Pad</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>13) 6MW5S</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Well not located
<i>b) Condition of Well Cover</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>c) Condition of Well Lock</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>d) Condition of Well Concrete Pad</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>14) 6MW5D</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Well not located
<i>b) Condition of Well Cover</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>c) Condition of Well Lock</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>d) Condition of Well Concrete Pad</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>15) 6MW6S</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>d) Condition of Well Concrete Pad</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>16) 6MW6D</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>d) Condition of Well Concrete Pad</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>17) 6MW7S</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>d) Condition of Well Concrete Pad</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None

**INSPECTION CHECKLIST**  
**SITE 6 - DRMO**  
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AREA OF INSPECTION	INSPECTED	DOES NOT APPLY	REPAIRS/MAINTENANCE NOT RECOMMENDED	REPAIRS/MAINTENANCE RECOMMENDED	NOTES AND COMMENTS
<b>18) 6MW8S</b>					
<i>a) Condition of Protective Casing/Riser</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Well not located
<i>b) Condition of Well Cover</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>c) Condition of Well Lock</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<i>d) Condition of Well Concrete Pad</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>19) 6MW9S</b>					
<i>a) Condition of Surface Surrounding Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Flush Mount Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>20) 6MW10S</b>					
<i>a) Condition of Surface Surrounding Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Flush Mount Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>21) 6MW10D</b>					
<i>a) Condition of Surface Surrounding Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>b) Condition of Flush Mount Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>22) 6MW11S</b>					
<i>a) Condition of Surface Surrounding Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concrete is settled around well cover
<i>b) Condition of Flush Mount Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
<b>23) 6MW11D</b>					
<i>a) Condition of Surface Surrounding Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Concrete is cracked and settled on one side of well cover
<i>b) Condition of Flush Mount Well Cover</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cover does not sit flush on road box
<i>c) Condition of Well Lock</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None

INSPECTION CHECKLIST  
SITE 6 - DRMO  
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<b>Adequacy of O&amp;M at Site:</b> Overall, O&M practices at the site are sufficient at this time	
<b>Notes:</b> No other notes other than what has been listed in the check list above.	
<b>Deficiencies/Items Requiring Correction:</b> Areas around 6MW11D and 6MW11S could use some repair. The road box around the well needs to be replaced and the cracks and separations observed in the asphalt cap in the vicinity should be sealed. The southern portion of the drainage swale needs regrading to ensure proper drainage through the entire swale. Brush and leaf litter should be removed from the northern portion of the swale and around the grates of the catch basin. Please see the attached Corrective Action Plan (Appendix A) for more information on the corrective action schedule	
Adam N. Roy Printed Name of Inspector	 Signature of Inspector / Date 8/25/05
Scott W. Harding, P.E. Printed Name of Supervisor	 Signature of Supervisor / Date 8/25/05
<b>Certification Statement:</b> I hereby certify that a complete and thorough inspection and evaluation of the site and implemented remedy has been performed, and that the items noted on this inspection form have been assessed with respect to the intent of the implemented remedy and the remedial action objectives established for the site	
Richard D. Conant Jr. Printed Name of O&M Engineer	 Printed Name of NSB-NLON IRP Manager
 Signature of O&M Engineer - Date	 Signature of NSB-NLON IRP Manager - Date 9/15/05

INSPECTION CHECKLIST  
SITE 6 - DRMO  
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Provide additional notes or sketch as needed

**Appendix A**  
**Corrective Action Plan**

**Naval Submarine Base - New London, Groton, CT  
2004 DRMO Landfill Annual Inspection  
August 2005**

**Appendix A – DRMO Landfill Corrective Action Plan**

No.	Item	Deficiency	Recommended Action	Action Performed and Date
1	Asphalt Cap	Sedimentation around jersey barriers at northwest perimeter restricting surface drainage.	Remove sediment.	Could not be performed in July 2005 due to restricted access. Scheduled to be completed during the fall of 2005.
2	Asphalt Cap	Depressions around 6MW11D.	Seal cracks and investigate cause of depressions.	Could not be performed in July 2005 due to restricted access. Scheduled to be completed during the fall of 2005.
3	Shore-Line Protection	Vegetation growing in rip-rap protection.	Control / remove vegetation.	Could not be performed in July 2005 due to restricted access. Scheduled to be completed during the fall of 2005.
4	Stone Drainage Swale	Southern portion is eroded in areas.	Areas should be regraded to ensure proper drainage.	Could not be performed in July 2005 due to restricted access. Scheduled to be completed during the fall of 2005.
5	Catch-Basin Inlet	Vegetation covering CB inlet.	Control / remove vegetation.	Could not be performed in July 2005 due to restricted access. Scheduled to be completed during the fall of 2005.
6	6MW11D road box	Cracked concrete and damaged road box.	Replace damaged road box and concrete before the onset of winter; install well caps. Continue monitoring the depressions after replacing road box and sealing cracks.	Could not be performed in July 2005 due to restricted access. Scheduled to be completed during the fall of 2005.

**Appendix B**  
**Response to Comments**

**Responses to EPA Comments  
DRMO Landfill Inspection Report - 2004  
Naval Submarine Base, New London, Groton, Connecticut**

Reviewer Kymberlee Keckler, Remedial Project Manager, Federal Facilities Superfund Section  
Date. September 12, 2005  
Respondent ECC

<b>Comment #</b>	<b>Location</b>	<b>Comment</b>	<b>Response</b>
1	p. 3	In the third sentence in the second full paragraph on this page, please change 2004 to 2005. Also, in the last sentence in the second full paragraph, please change 11 July 2003 to 29 December 2004 and change 4 November 2003 to 26 April 2005. The 2003 dates are remnants from the 2003 annual report.	Agreed – text has been edited.
2	p. 3	Under Institutional Controls, please edit the text to acknowledge that institutional controls also include site use restrictions. SOPA (ADMIN) New London Instruction 5090.18 is a policy document that restricts the use of the CERCLA landfill sites at the Naval Submarine Base New London and should be cited in this section. In general, the requirements of the policy regarding proper equipment storage appear to be satisfied at the DRMO site.	Agreed. The above mentioned institutional control restricts any surface or subsurface disturbances of soils. Report text has been edited to make a note of the above instruction.
3	p. 5	Please edit or delete the second sentence at the top of the page because no precipitation event occurred during the two inspections and no runoff was observed during either inspection. This sentence is a remnant from the previous annual report.	Agreed – text has been edited.
4	p. 5	The discussion in the second full paragraph on this page is misleading regarding the condition of the asphalt paving; however, the repair recommendations are appropriate (except the recommendation in the third paragraph to monitor the depressions is not appropriate). Not just asphalt scaring was present but a significant crack in need of repair was also observed. In addition, at least three significant depressions are present, one immediately adjacent to 6MW11D that could potentially compromise the integrity of the well, which appears to be leaning from vertical.	Agreed – the depressions and cracks in the asphalt adjacent to 6MW11D and the broken road box around the well appear to have been caused by the same fault/depression. Report text was edited to include the sealing of cracks as one of the corrective measures. The road box is scheduled for replacement and the cracks are scheduled to be sealed during fall 2005. Please see the attached Corrective Action Plan (Appendix A) for more details about the replacement schedule.
5	p. 6	In the partial paragraph at the top of the page, the text states that 6MW4S was located beneath stored equipment. This is not apparently correct because the location of 6MW4S does not appear to be in an area where equipment was stored either on December 29, 2004 or April 26, 2005. It appears that this well has been improperly located on the Site map or else it has been abandoned and paved	Agreed – there appear to be no wells at the locations corresponding to these two wells as specified in the figure. No gauging data or sampling data are available for these two wells. At present, not enough information is available as to whether they were abandoned. Their locations will be verified during the upcoming inspection during 2005.

**Responses to EPA Comments  
DRMO Landfill Inspection Report - 2004  
Naval Submarine Base, New London, Groton, Connecticut**

Reviewer: Kymberlee Keckler, Remedial Project Manager, Federal Facilities Superfund Section  
Date: September 12, 2005  
Respondent: ECC

Comment #	Location	Comment	Response
		over. Before the next inspection of the DRMO the location and status of 6MW4S needs to be verified. This well is reportedly in the monitoring program for the DRMO; however, it reportedly has not been recently sampled because it could not be found. Also, 6MW8S has not been found during annual and supplemental inspections of the DRMO in 2003 or 2004. It apparently is located beneath stored equipment, but this needs to be verified before the next inspection. The Navy should also comment as to whether 6MW8S has been sampled in the past three years.	Report text and checklists have been modified accordingly.
6	p.6	Under Housekeeping and Maintenance, the text should also include a caveat that heavy equipment should continue to be stored with supports beneath the equipment to prevent high pressure contact with the asphalt.	Agreed – report text has been edited.
7	p. 6	Under Inspection Summary, the suggestion that the deficiencies associated with 6MW11D may be monitored rather than immediately repaired is inappropriate. This well is leaning, the road box cover is broken, the concrete pad is badly cracked, and the asphalt surrounding the well is depressed. Repair of the road box, the depression, the asphalt, and the concrete associated with this well must be implemented before the onset of winter.	Agreed – report text has been edited. The road box for 6MW11D is scheduled to be replaced during the fall of 2005. Please see the Corrective Action Plan (Appendix A) for more details and the corrective action schedule.
8	Figure 1-1	The legend in this figure is not correct and needs to be reviewed and corrected. It appears the symbols for the active and abandoned monitoring wells have been transposed. The blue colored monitoring wells are actually the abandoned wells not the active wells. Also the green symbol for the abandoned wells (open circle and cross) does not match the symbol used in the figure for the active monitoring wells (partially filled circle and cross). Finally, the locations of 6MW4S and 6MW8S need to be verified. 6MW4S was not found at the Site at or near the location shown in the figure. 6MW8S may be located properly but just covered with equipment; however, please verify the location of 6MW8S because it has not been observed since the inspections started in 2003.	Agreed – figure has been modified to correct the symbols. Currently, it is unclear whether the wells 6MW4S and 6MW8S were abandoned or are incorrectly located on the map. So, no changes have been made for these two wells. They will be modified on verification of the status of these wells during the upcoming inspection.

**Responses to EPA Comments  
DRMO Landfill Inspection Report - 2004  
Naval Submarine Base, New London, Groton, Connecticut**

Reviewer: Kymberlee Keckler, Remedial Project Manager, Federal Facilities Superfund Section  
Date: September 12, 2005  
Respondent: ECC

<b>Comment #</b>	<b>Location</b>	<b>Comment</b>	<b>Response</b>
9	Table 1-1	Please edit the deficiency for Item #2 - this item actually refers to the two depressions located south of 6MW11D. There is another depression at 6MW11D that should be noted in the description of the deficiency for Item #6.	Agreed – the text has been edited.
10	December 29, 2004 Inspection Checklist.	Signatures are missing; therefore, the report is not considered complete. Please include signatures on the final version of the report.	Agreed – signatures have been obtained in the final version of the checklist.
11	April 26, 2005 Inspection Checklist, p.1	Under Item #2b, the inspector failed to note here that three significant depressions in the asphalt were observed - two south of 6MW11D and one adjacent to 6MW11D.	Agreed – the checklist has been edited. The Action List (Table 1-1) also was modified to make a note of the 3 depressions.
12	April 26, 2005 Inspection Checklist, p.1	Under Item #2c, the inspector failed to note here that one significant crack in need of repair was observed in the asphalt pavement (a crack notation was made in the comment for Item #2f, Bulges in Pavement).	Agreed – the checklist has been edited.
13	April 26, 2005 Inspection Checklist, p.3	Comments for Items #13 and #14 state that equipment storage interfered with the inspection of these monitoring wells; however, these wells are located outside the DRMO northeast of the Site. These wells were not inspected either on December 29, 2004 or April 26, 2005. Please correct the checklist comments.	Agreed – these wells were not part of the sampling program and they were overlooked. They will be inspected in future events.
14	April 26, 2005 Inspection Checklist, pp.7-14	Under Deficiencies/Item Requiring Corrections, please edit the sentence regarding 6MW11D - the depression, the concrete pad, the asphalt, and the road box all need to be repaired before the onset of winter.	Agreed – checklist modified to refer to the Corrective Action Plan which states that the repairs need to be performed before the onset of winter.
15	April 26, 2005 Inspection Checklist	Since the signatures are missing, the report is not considered complete. Please include signatures on the final version of the report.	Agreed – signatures have been obtained for the final versions.
16	April 26, 2005 Inspection Checklist	It is not apparent that Adam Roy is qualified, per the requirements stipulated in the O&M Manual, to sign as the inspector or as the O&M Engineer. Adam Roy served as inspector for the April 26, 2005 supplemental inspection, but Scott Harding, P.E., served as inspector for the December 2004 inspection. Robert Tess, P.E., also	Agreed – the final version has also been signed by Scott Harding, P.E, who is the supervisor of Adam Roy. Although there are no specific qualification requirements listed in the O&M Manual, a P.E. will be used for all future inspections.

**Responses to EPA Comments  
DRMO Landfill Inspection Report - 2004  
Naval Submarine Base, New London, Groton, Connecticut**

Reviewer     Kymberlee Keckler, Remedial Project Manager, Federal Facilities Superfund Section  
 Date:         September 12, 2005  
 Respondent   ECC

<b>Comment #</b>	<b>Location</b>	<b>Comment</b>	<b>Response</b>
		participated in the April 26, 2005 inspection. Please comply with the inspector qualification requirements or explain how Adam Roy satisfies the requirements.	
<b>END OF COMMENTS</b>			