Nevada
Environmental
Restoration
Project

DOE/NV--1305

Post-Closure Report for Closed
*Resource Conservation and
Recovery Act* Corrective Action
Units, Nevada Test Site, Nevada

For Fiscal Year 2008
(October 2007–September 2008)

Controlled Copy No.: _____

Revision: 0

December 2008

Environmental Restoration
Project

U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office

DISCLAIMER

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the U.S. Government.

This report has been reproduced directly from the best available copy.

Available for sale to the public from:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161-0002
Telephone: (800) 553-6847
Fax: (703) 605-6900
E-mail: orders@ntis.gov
Online ordering: <http://www.ntis.gov/ordering.htm>

Available electronically at <http://www.osti.gov/bridge>.

Available for a processing fee to the U.S. Department of Energy and its contractors, in paper, from:

U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831-0062
Telephone: (865) 576-8401
Fax: (865) 576-5728
E-mail: reports@adonis.osti.gov

**POST-CLOSURE REPORT FOR CLOSED
RESOURCE CONSERVATION AND RECOVERY ACT
CORRECTIVE ACTION UNITS,
NEVADA TEST SITE, NEVADA**

**FOR FISCAL YEAR 2008
(OCTOBER 2007–SEPTEMBER 2008)**

**U.S. Department of Energy,
National Nuclear Security Administration
Nevada Site Office
Las Vegas, Nevada**

**Controlled Copy No. _____
Revision: 0
December 2008**

THIS PAGE INTENTIONALLY LEFT BLANK

**POST-CLOSURE REPORT FOR CLOSED
RESOURCE CONSERVATION AND RECOVERY ACT
CORRECTIVE ACTION UNITS,
NEVADA TEST SITE, NEVADA**

**FOR FISCAL YEAR 2008
(OCTOBER 2007–SEPTEMBER 2008)**

Approved By: _____

Kevin J. Cabbie
Federal Sub-Project Director
Industrial Sites Sub-Project

Date: _____

12-29-2008

Approved By: _____

Robert F. Boehlecke
Federal Project Director
Environmental Restoration Project

Date: _____

12/29/08

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	vii
EXECUTIVE SUMMARY	ix
1.0 SUMMARY OF INSPECTIONS, REPAIRS, AND MAINTENANCE.....	1
1.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT	1
1.1.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	1
1.1.2 Inspection, Repair, and Maintenance Activities	1
1.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL.....	1
1.2.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	1
1.2.2 Inspection, Repair, and Maintenance Activities	1
1.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY	2
1.3.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	2
1.3.2 Inspection, Repair, and Maintenance Activities	2
1.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER	3
1.4.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	3
1.4.2 Inspection, Repair, and Maintenance Activities	3
1.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES	3
1.5.1 <i>Resource Conservation and Recovery Act</i> Permit Requirements.....	3
1.5.2 Inspection, Repair, and Maintenance Activities	4
2.0 CORRECTIVE ACTION UNIT 110 SUBSIDENCE AND VEGETATION SURVEY	
RESULTS	5
2.1 SUBSIDENCE SURVEY	5
2.2 VEGETATION SURVEY.....	5
3.0 CORRECTIVE ACTION UNIT 110 SOIL MOISTURE MONITORING RESULTS	9
4.0 RECOMMENDATIONS AND CONCLUSIONS	17
4.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT.....	17
4.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL.....	17
4.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY	17
4.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER	17
4.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES	18

LIBRARY DISTRIBUTION LIST

FIGURES

FIGURE 1. LOCATIONS OF CLOSED <i>RESOURCE CONSERVATION AND RECOVERY ACT</i> CORRECTIVE ACTION SITES.....	X
FIGURE 2. TIME DOMAIN REFLECTOMETRY LOCATIONS	10
FIGURE 3. PRECIPITATION DATA FOR METEOROLOGICAL STATION BUSTER JANGLE Y	11
FIGURE 4. EAST TDR NEST A SOIL MOISTURE CONTENT PROFILE.....	12
FIGURE 5. EAST TDR NEST B SOIL MOISTURE CONTENT PROFILE	13
FIGURE 6. WEST TDR NEST A SOIL MOISTURE CONTENT PROFILE.....	14

TABLE OF CONTENTS (continued)

FIGURE 7. WEST TDR NEST B SOIL MOISTURE CONTENT PROFILE 15

TABLES

TABLE 1. CORRECTIVE ACTION UNIT 110 SUBSIDENCE SURVEY RESULTS 6

APPENDICES

- APPENDIX A. INSPECTION CHECKLISTS
- APPENDIX B. FIELD NOTES
- APPENDIX C. PHOTOGRAPHS

ACRONYMS AND ABBREVIATIONS

CAU	Corrective Action Unit
FFACO	<i>Federal Facility Agreement and Consent Order</i>
ft	foot (feet)
FY	fiscal year
in.	inch(es)
NDEP	Nevada Division of Environmental Protection
SM	subsidence marker
TDR	Time Domain Reflectometry

THIS PAGE INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

This report is the first combined annual report for post-closure activities for the following closed Corrective Action Units (CAUs):

- CAU 90, Area 2 Bitcutter Containment
- CAU 91, Area 3 U-3fi Injection Well
- CAU 92, Area 6 Decon Pond Facility
- CAU 110, Area 3 WMD U-3ax/bl Crater
- CAU 112, Area 23 Hazardous Waste Trenches

The locations of the sites are shown in Figure 1. This report covers fiscal year (FY) 2008 (October 2007–September 2008). Because this is the first combined annual report for these CAUs, this report only covers the period not covered in the previous annual report for each CAU. For example, the last report submitted for CAU 91 covered the period January 2007–December 2007; therefore, this report only covers the remainder of FY2008 (January 2008–September 2008) for CAU 91. The post-closure requirements for these sites are described in *Resource Conservation and Recovery Act* Permit Number NEV HW0021 and summarized in each CAU-specific section in Section 1.0 of this report.

Site inspections are conducted semiannually at CAUs 90 and 91 and quarterly at CAUs 92, 110, and 112. Additional inspections are conducted at CAU 92 if precipitation occurs in excess of 0.50 inches in a 24-hour period. Inspections include an evaluation of the condition of the units and identification of any deficiencies that may compromise the integrity of the units. The condition of covers, fencing, signs, gates, and locks is documented. In addition, soil moisture monitoring and subsidence surveys are conducted at CAU 110. The results of the inspections, summary of maintenance activities, results of vegetations surveys, and analysis of monitoring data are presented in this report.

Copies of the inspection checklists are included as Appendix A. Field notes completed during each inspection are included in Appendix B. Photographs taken during the site inspections are included in Appendix C.

FIGURE 1
LOCATIONS OF CLOSED *RESOURCE CONSERVATION*
***AND RECOVERY ACT* CORRECTIVE ACTION SITES**

1.0 SUMMARY OF INSPECTIONS, REPAIRS, AND MAINTENANCE

1.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT

1.1.1 *Resource Conservation and Recovery Act* Permit Requirements

Inspections are required at Corrective Action Unit (CAU) 90 twice per year and include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit. Photographs of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. Any deficiencies that require maintenance other than general housekeeping issues are reported to the Nevada Division of Environmental Protection (NDEP) and remedied within 60 days of discovery.

1.1.2 Inspection, Repair, and Maintenance Activities

The last report submitted for CAU 90 covered the period July 2007–June 2008; therefore, this report covers the remainder of fiscal year (FY) 2008 (July 2008–September 2008) for CAU 90. The last semiannual inspection was performed on June 17, 2008, and the results were reported in the last annual report. The next semiannual inspection is scheduled for December 2008, and the results will be reported in the next annual report.

During the last semiannual inspection, vegetation was noted on the cover, and vegetation removal and herbicide application were recommended. Vegetation removal activities and herbicide application were completed on August 7, 2008. It was also recommended to replace the use restriction warning signs as a best management practice to meet current *Federal Facility Agreement and Consent Order* (FFACO) posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

1.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL

1.2.1 *Resource Conservation and Recovery Act* Permit Requirements

Inspections are required at CAU 91 twice per year and include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit. Photographs of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. The permit does not specify a time period in which repairs or maintenance are to be completed at CAU 91.

1.2.2 Inspection, Repair, and Maintenance Activities

The last report submitted for CAU 91 covered the period January 2007–December 2007; therefore, this report covers the remainder of FY2008 (January 2008–September 2008) for CAU 91. Semiannual inspections were performed on March 26 and September 23, 2008.

During the March semiannual inspection, vegetation was noted within the fenced area, and vegetation removal and herbicide application were recommended. Vegetation is commonly observed during the spring inspections. Signs and fencing were in good condition, and no other

issues were identified. Vegetation removal activities and herbicide application were completed on May 13, 2008.

During the September semiannual inspection, the cover and fencing were in good condition, and no issues were identified. It was recommended to replace the use restriction warning signs as a best management practice to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

1.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY

1.3.1 *Resource Conservation and Recovery Act* Permit Requirements

Inspections are required quarterly at CAU 92 and in the event that precipitation occurs in excess of 0.50 inches (in.) in a 24-hour period. Inspections include an evaluation of the cover and identification of any deficiencies that may compromise the integrity of the cover. Photographs of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. The inspection checklist documents the reason for the inspection (i.e., quarterly or excess precipitation) and any changes in the condition of the cover or fenced area, including, but not limited to, trash or debris within the fenced area, erosion of the cover, vegetation growing on the cover, and animal burrows or nesting activity. The condition of the fencing, wave barrier (fiber glass slats laced through the bottom of the chain-link fencing), use restriction warning signs, entrance gate, and lock is also documented. Any evidence of small cracks or settling imperfections (less than 2 in. deep) on the cover is documented, and repairs are scheduled on an annual basis. Larger disruptions of the cover are immediately reported to NDEP and remedied within 60 days of discovery.

1.3.2 Inspection, Repair, and Maintenance Activities

The last report submitted for CAU 92 covered the period January 2007–December 2007; therefore, this report covers the remainder of FY2008 (January 2008–September 2008) for CAU 92. Quarterly inspections were performed on March 26, June 17, and September 23, 2008. Precipitation events in excess of 0.50 in. occurred in January and August 2008, and inspections were performed on January 28 and August 7, 2008.

On January 27, 2008, 0.63 in. of precipitation were recorded, and an inspection was conducted on January 28, 2008. During the inspection, some standing water was noted within the fenceline but not on the cover itself. The signs, fencing, and wave barriers were in good condition, and no issues were identified.

During the March quarterly inspection, vegetation was noted around the perimeter of the cover, and vegetation removal and herbicide application were recommended. The signs, fencing, and wave barriers were in good condition, and no other issues were identified. Vegetation removal activities and herbicide application were completed on May 13, 2008.

During the June quarterly inspection, vegetation was noted around the perimeter of the cover, and vegetation removal and herbicide application were recommended. The fencing and wave barriers were in good condition, and no other issues were identified. Vegetation removal activities and herbicide application were completed on August 7, 2008. It was also recommended to replace the use restriction warning signs as a best management practice to meet

current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

On August 4, 2008, 0.73 in. of precipitation were recorded, and an inspection was conducted on August 7, 2008. During the inspection, no standing water was noted on the cover or within the fenceline. The signs, fencing, and wave barriers were in good condition, and no issues were identified.

During the September quarterly inspection, it was recommended to repair damaged sections of the wave barrier. In addition, vegetation was noted on the perimeter of the cover, and vegetation removal was recommended. These repairs were completed within 60 days of the inspection and will be reported in the next annual report. No other issues were identified.

1.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER

1.4.1 *Resource Conservation and Recovery Act* Permit Requirements

Inspections are required quarterly at CAU 110 to verify that the cover is intact. Photographs of the unit are taken during the inspection, and the results of the inspection are documented on an inspection checklist. The perimeter of the fencing is walked by the inspector, and the condition of the fencing and chicken wire, use restriction warning signs, and entrance gate and lock is documented. In addition, the seven subsidence markers (SMs) are inspected, and any changes in the condition of the cover, including, but not limited to, trash or debris within the fenced area, erosion of the cover, and animal burrows or nesting activity, are documented. Any evidence of non-critical cracks or settling imperfections (equal to or less than 6 in. deep) on the cover is documented, and repairs are scheduled on an annual basis. Cracks or settling imperfections greater than 6 in. deep that extend 3 feet (ft) or more on the cover are reported to NDEP and repaired within 60 days of discovery.

1.4.2 Inspection, Repair, and Maintenance Activities

The last report submitted for CAU 110 covered the period July 2007–June 2008; therefore, this report covers the remainder of FY2008 (July 2008–September 2008) for CAU 110. The quarterly inspection performed during this period was completed on September 23, 2008.

During the September quarterly inspection, the fencing, SMs, and cover were in good condition, and no issues were identified. It was recommended to replace the use restriction warning signs as a best management practice to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

1.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES

1.5.1 *Resource Conservation and Recovery Act* Permit Requirements

Inspections are required quarterly at CAU 112 and include an evaluation of the condition of the unit and identification of any deficiencies that may compromise the integrity of the unit. The results of the inspection are documented on an inspection checklist. The permit does not specify a time period in which repairs or maintenance are to be completed at CAU 112.

1.5.2 Inspection, Repair, and Maintenance Activities

The last report submitted for CAU 112 covered the period October 2006–September 2007; therefore, this report covers all of FY2008 (October 2007–September 2008) for CAU 112. Quarterly inspections were performed on December 18, 2007, and on March 26, June 17, and September 23, 2008.

During the December quarterly inspection, the fencing, signs, and cover were in good condition, and no issues were identified.

During the March quarterly inspection, vegetation was noted on the cover, and vegetation removal and herbicide application were recommended. In addition, a strand of barbed wire fencing was down, and repair was recommended. The signs and other cover features were in good condition, and no other issues were identified. Vegetation removal activities and herbicide application were completed on May 8, 2008, and fence repair was completed on August 7, 2008.

During the June quarterly inspection, two signs were down. The fencing and cover were in good condition, and no other issues were identified. The two signs were reattached on August 7, 2008. It was also recommended to replace the use restriction warning signs as a best management practice to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

During the September quarterly inspection, the fencing, signs, and cover were in good condition, and no issues were identified.

2.0 CORRECTIVE ACTION UNIT 110 SUBSIDENCE AND VEGETATION SURVEY RESULTS

2.1 SUBSIDENCE SURVEY

Seven SMs are installed on the cover of CAU 110 to determine if subsidence of the cover is occurring. The initial baseline subsidence survey was conducted on December 14, 2000. Subsequent surveys are conducted twice per year and are compared to the December 2000 baseline survey results. Because the last report submitted for CAU 110 covered the period July 2007–June 2008, this report only covers the remainder of FY2008 (July 2008–September 2008) for CAU 110. The subsidence survey performed during this period was completed on September 4, 2008.

The subsidence survey results are tabulated in Table 1. No significant subsidence was observed. SM 5 shows the greatest decrease in elevation (-0.09 ft) compared to the baseline survey in 2000. Calculated subsidence values are negligible and near the resolution of the survey instruments. This indicates that subsidence is not occurring on the cover.

2.2 VEGETATION SURVEY

The CAU 110 cover was initially planted with native seed in December 2000. Surveys have been conducted annually to assess the success of the revegetation effort. The last vegetation survey was completed in May 2008, and the results were included in the last report submitted for CAU 110. The next vegetation survey is scheduled for May 2009, and the results will be summarized in the next annual report.

TABLE 1. CORRECTIVE ACTION UNIT 110 SUBSIDENCE SURVEY RESULTS

DATE	SM #1	SM #2	SM #3	SM #4	SM #5	SM #6	SM #7
	Elevation at Top of Subsidence Marker ¹						
	Subsidence Since December 2000 Baseline Survey (ft)						
December 2000 Baseline	4,021.84	4,021.28	4,019.83	4,020.99	4,021.87	4,019.25	4,020.52
	-	-	-	-	-	-	-
July 2001	4,021.83	4,021.28	4,019.83	4,020.98	4,021.86	4,019.24	4,020.51
	-0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.01
January 2002	4,021.84	4,021.28	4,019.83	4,020.98	4,021.86	4,019.24	4,020.51
	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
September 2002	4,021.83	4,021.27	4,019.83	4,020.98	4,021.86	4,019.24	4,020.50
	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02
January 2003	4,021.83	4,021.27	4,019.83	4,020.98	4,021.86	4,019.24	4,020.50
	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02
July 2003	4,021.83	4,021.27	4,019.83	4,020.97	4,021.85	4,019.24	4,020.50
	-0.01	-0.01	0.00	-0.02	-0.02	-0.01	-0.02
March 2004	4,021.82	4,021.26	4,019.82	4,020.97	4,021.83	4,019.22	4,020.49
	-0.02	-0.02	-0.01	-0.02	-0.04	-0.03	-0.03
September 2004	4,021.82	4,021.26	4,019.82	4,020.96	4,021.83	4,019.23	4,020.49
	-0.02	-0.02	-0.01	-0.03	-0.04	-0.02	-0.03
March 2005	4,021.82	4,021.26	4,019.82	4,020.96	4,021.82	4,019.22	4,020.49
	-0.02	-0.02	-0.01	-0.03	-0.05	-0.03	-0.03
September 2005	4,021.82	4,021.26	4,019.82	4,020.97	4,021.82	4,019.23	4,020.49
	-0.02	-0.02	-0.01	-0.02	-0.05	-0.02	-0.03

TABLE 1. CORRECTIVE ACTION UNIT 110 SUBSIDENCE SURVEY RESULTS, CONTINUED

DATE	SM #1	SM #2	SM #3	SM #4	SM #5	SM #6	SM #7
	Elevation at Top of Subsidence Marker ¹						
	Subsidence Since December 2000 Baseline Survey (ft)						
March 2006	4,021.82	4,021.26	4,019.82	4,020.96	4,021.82	4,019.23	4,020.49
	-0.02	-0.02	-0.01	-0.03	-0.05	-0.02	-0.03
September 2006	4,021.82	4,021.25	4,019.82	4,020.96	4,021.81	4,019.22	4,020.49
	-0.02	-0.03	-0.01	-0.03	-0.06	-0.03	-0.03
March 2007	4,021.82	4,021.25	4,019.82	4,020.96	4,021.80	4,019.22	4,020.48
	-0.02	-0.03	-0.01	-0.03	-0.07	-0.03	-0.04
September 2007	4,021.81	4,021.25	4,019.81	4,020.96	4,021.79	4,019.22	4,020.49
	-0.03	-0.03	-0.02	-0.03	-0.08	-0.03	-0.03
March 2008	4,021.81	4,021.25	4,019.81	4,020.95	4,021.79	4,019.22	4,020.48
	-0.03	-0.03	-0.02	-0.04	-0.08	-0.03	-0.04
September 2008	4,021.81	4,021.25	4,019.81	4,020.95	4,021.78	4,019.21	4,020.48
	-0.03	-0.03	-0.02	-0.04	-0.09	-0.04	-0.04

¹ Elevations based on North American Vertical Datum of 1929 in ft.

THIS PAGE INTENTIONALLY LEFT BLANK

3.0 CORRECTIVE ACTION UNIT 110 SOIL MOISTURE MONITORING RESULTS

The CAU 110 cover is designed to prevent infiltration into the disposal unit. The cover performance is monitored using Time Domain Reflectometry (TDR) soil water content sensors buried within the waste cover. The TDR probes are buried at depths of 1 to 8 ft below ground surface at 1-ft intervals. The TDR probes are installed at a distance of 165 ft from the edge of the cover. Arrays of eight probes are positioned at four locations across the cover. Figure 2 illustrates the locations of TDR probes on the cover. Moisture content data from the TDR probes are recorded on a daily basis and stored on a data logger. The data are transmitted via radio frequency and downloaded on a quarterly basis.

Precipitation data were collected from meteorological station Buster Jangle Y, located approximately 3 miles northwest of CAU 110. The precipitation data are presented in Figure 2. Graphs of the TDR-derived soil moisture content profiles, combined with the daily precipitation values, are presented in Figures 3 through 6.

Soil moisture results obtained to date indicate that the CAU 110 cover is functioning as designed. Shallow soil moisture content is variable and dependent on precipitation events and the ability of shallow root systems and evapotranspiration to remove moisture from the soil. The ability for these systems to remove moisture can be locally inhibited if animal burrowing and grazing on plants affects the root systems; therefore, small mammals are being trapped and relocated from the cover to limit this damage.

Soil moisture contents for the TDR nests at depth are generally between 9 and 15 percent volumetric moisture content, depending on the location of the nest. Some locations show greater annual variability in moisture content; however, each location appears to have equilibrated to a consistent state for that location.

The point of compliance is the depth of the deepest TDR probe (8 ft). Compliance will be set based on soil moisture content; however, the specific criteria will not be established until the cover has had sufficient time to reach equilibrium. Once the moisture content within the cover reaches equilibrium, soil moisture trigger values will be agreed upon with NDEP. Because the last report submitted for CAU 110 covered the period July 2007–June 2008, this report only covers the remainder of FY2008 (July 2008–September 2008) for CAU 110. A compliance level will be proposed in next year's report if moisture conditions remain within the same moisture content range observed over recent years.

FIGURE 2
TIME DOMAIN REFLECTOMETRY LOCATIONS

FIGURE 3
PRECIPITATION DATA FOR METEOROLOGICAL
STATION BUSTER JANGLE Y

FIGURE 4
EAST TDR NEST A SOIL MOISTURE CONTENT PROFILE

FIGURE 5
EAST TDR NEST B SOIL MOISTURE CONTENT PROFILE

FIGURE 6
WEST TDR NEST A SOIL MOISTURE CONTENT PROFILE

FIGURE 7
WEST TDR NEST B SOIL MOISTURE CONTENT PROFILE

THIS PAGE INTENTIONALLY LEFT BLANK

4.0 RECOMMENDATIONS AND CONCLUSIONS

4.1 CORRECTIVE ACTION UNIT 90, AREA 2 BITCUTTER CONTAINMENT

This report covers July 2008–September 2008 for CAU 90. Inspections were not scheduled or performed at CAU 90 during this period. The next semiannual inspection is scheduled for December 2008, and the results will be reported in the next annual report.

It is recommended to continue inspections twice per year to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit. As a best management practice, the use restriction warning signs will be replaced to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

4.2 CORRECTIVE ACTION UNIT 91, AREA 3 U-3FI INJECTION WELL

This report covers January 2008–September 2008 for CAU 91. Semiannual inspections were performed at CAU 91 on March 26 and September 23, 2008. During the last inspection, the unit was in good condition, and no maintenance or repairs were needed.

It is recommended to continue inspections twice per year to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit. As a best management practice, the use restriction warning signs will be replaced to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

4.3 CORRECTIVE ACTION UNIT 92, AREA 6 DECON POND FACILITY

This report covers January 2008–September 2008 for CAU 92. Quarterly inspections were performed at CAU 92 on March 26, June 17, and September 23, 2008. Precipitation events in excess of 0.50 in. occurred in January and August 2008, and inspections were performed after each event. During the last inspection, it was recommended to repair damaged sections of the wave barrier. In addition, vegetation was noted on the perimeter of the cover, and vegetation removal and herbicide application were recommended. These repairs were completed within 60 days of the inspection and will be reported in the next annual report. No other issues were identified, and no additional maintenance or repairs were needed.

It is recommended to continue quarterly inspections to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit. As a best management practice, the use restriction warning signs will be replaced to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

4.4 CORRECTIVE ACTION UNIT 110, AREA 3 WMD U-3AX/BL CRATER

This report covers July 2008–September 2008 for CAU 110. The quarterly inspection performed at CAU 110 during this period was completed on September 23, 2008. During the inspection, the unit was in good condition, and no maintenance or repairs were needed. Subsidence survey results indicate that no significant subsidence of the cover is occurring. Soil moisture results obtained to date indicate that the cover is functioning as designed.

The following actions are recommended for CAU 110:

- Continue quarterly inspections to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit.
- Continue subsidence surveys twice per year to determine if subsidence of the cover is occurring.
- Continue to monitor the vegetation on the cover annually to evaluate plant cover, density, and diversity.
- Continue to monitor the soil moisture content and recommend a compliance level if moisture conditions at the compliance depth of 8 ft continue to show that each location remains within the same moisture content range observed over recent years.

As a best management practice, the use restriction warning signs will be replaced to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

4.5 CORRECTIVE ACTION UNIT 112, AREA 23 HAZARDOUS WASTE TRENCHES

This report covers October 2007–September 2008 for CAU 112. Quarterly inspections were performed at CAU 112 on December 18, 2007, and on March 26, June 17, and September 23, 2008. During the last inspection, the unit was in good condition, and no maintenance or repairs were needed.

It is recommended to continue quarterly inspections to evaluate the condition of the unit and identify any deficiencies that may compromise the integrity of the unit. As a best management practice, the use restriction warning signs will be replaced to meet current FFACO posting guidelines. This activity is planned for FY2009 and will be reported in the next annual report.

APPENDIX A.

INSPECTION CHECKLISTS

THIS PAGE INTENTIONALLY LEFT BLANK

CORRECTIVE ACTION UNIT 91 INSPECTION CHECKLISTS

THIS PAGE INTENTIONALLY LEFT BLANK

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

Inspection Date and Time:	3/26/08 11:10 AM	Reason for Inspection:	Semi-Annual
Date of Last Post-Closure Inspection:	9/27/07	Reason for Last Post-Closure Inspection:	Semi-Annual
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada			
Responsible Facility Owner: Jeffrey L. Smith, Deputy Manager, Environmental Restoration			
Chief Inspector:	Glenn Richardson	Title:	Task Manager
Assistant Inspector:	Mike Floyd	Title:	Field Technical Lead
		Organization:	Environmental Restoration
		Organization:	Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log entry will be made for each photograph taken. The photographs will be maintained in the project files.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected semi-annually with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual letter report will include a summary of the inspection, copies of this inspection checklist, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☒	☐	Vegetation growth was identified during the March 2007 inspection.
b. Was maintenance performed?	☒	☐	Vegetation removal activities were completed in May 2007.
If maintenance was performed, has a copy of the maintenance records been obtained?	☒	☐	NA An electronic copy of the maintenance records is available and placed on the ER Shared Drive
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☒	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☐	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:

YES NO EXPLANATION (required if shaded box is checked)

- a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?

YES NO

EXPLANATION (required if shaded box is checked)

2. Fences, gates, and signs:

YES NO EXPLANATION (required if shaded box is checked)

- a. Is there damage to or a break in the fence?
- b. Have any fenceposts been damaged or their anchoring weakened?
- c. Is the gate intact and functional?
- d. Does the gate show evidence of tampering or damage?
- e. Was the gate locked?
- f. Are any of the use restriction signs damaged or missing?
- g. Are all use restriction signs legible?
- h. How many use restriction signs need to be replaced?
- i. Other?

YES NO

EXPLANATION (required if shaded box is checked)

4. Waste unit cover:

YES NO EXPLANATION (required if shaded box is checked)

- a. Is there evidence of settling?
- b. Is there evidence of cracking?
- c. Is there evidence of erosion (wind or water)?
- d. Is there evidence of human intrusion onto the cover?
- e. Is there evidence of large animal intrusion onto the cover?
- f. Is there evidence of animal burrowing?
- g. Is vegetation growing on the cover?
- h. Other (including trash, debris, etc within fenced area)?

YES NO

EXPLANATION (required if shaded box is checked)

Noticed vegetation growth around the edge of the aboveground monument concrete pad and other places within the fenced area.

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

5. Photograph Instructions:

A total of 10 photographs are required to be taken during each inspection of CAU 91. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W),
- Four (4) of the unit from outside the fence, one in each compass direction, and
- Two (2) of the ER3-3 monitoring well surface with compass directions (N and S) noted on the photograph log.

6. Photograph Documentation:

YES	NO	EXPLANATION (required if shaded box is checked)
☒	☐	
☒	☐	Log number: <i>An electronic log is available on the ER Shared drive, under CAU 91.</i>
☐	☐	10
☐	☐	NA ☒

E. FIELD CONCLUSIONS

YES	NO	EXPLANATION (required if shaded box is checked)
☐	☒	
☒	☐	<i>Vegetation removal activities performed in May 2007 were satisfactory, but new vegetation growth was discovered.</i>
☒	☐	<i>Vegetation removal is necessary within the fenced area and especially around the monument concrete pad.</i>
☐	☒	

Date reported: _____

Person/Agency to whom report was made: _____

5. Field conclusions/recommendations: *The signage and fencing were in good condition. There was no evidence of animal burrowing. The aboveground monument was not damaged and in great condition. However, a significant amount of vegetation growth was noticed around the edges of the aboveground monument concrete pad and in other locations within the UR fenced area. Vegetation removal is required within 60 days. Also, an herbicide will be applied.*

F. CERTIFICATION

I have conducted an inspection of CAU 91, Area 3 U-3fi Injection Well, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: *Glenn Richardson*

Date: *3/26/08*

Printed Name: *Glenn Richardson*

Title: *Task Manager*

Attachments (check if attached):

- ☒ Field Notes
- ☐ Photos
- ☐ Maintenance records

POST-CLOSURE INSPECTION CHECKLIST**CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes**

Inspection Date and Time: <u>9/23/08 10:10AM</u>	Reason for Inspection: <u>Semi-Annual</u>	
Date of Last Post-Closure Inspection: <u>3/26/08</u>	Reason for Last Post-Closure Inspection: <u>Semi-Annual</u>	
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada		
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project		
Chief Inspector: <u>Glenn Richardson</u>	Title: <u>Task Manager</u>	Organization: Environmental Restoration
Assistant Inspector: <u>Robert Green</u>	Title: <u>Field Technical Lead</u>	Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log entry will be made for each photograph taken. The photographs will be maintained in the project files.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected semi-annually with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual letter report will include a summary of the inspection, copies of this inspection checklist, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☒	☐	<u>Vegetation within the fenced area was noticed in March 2008 and June 2008.</u>
b. Was maintenance performed?	☒	☐	<u>Vegetation removal activities were completed in May 2008 and Aug. 2008.</u>
If maintenance was performed, has a copy of the maintenance records been obtained?	☒	☐	NA <u>Maintenance records are kept in an electronic database for Solid Waste maintenance services.</u>
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☒	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☒	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?	0		As a best management practice, all UR signs will be updated to meet current guidance standards.
i. Other?			NA ✓
4. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?		✓	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 91: AREA 3 U-3fi INJECTION WELL - CAS 03-20-03: UD-6 and UD-6s Disposal Holes

5. Photograph Instructions:

A total of 10 photographs are required to be taken during each inspection of CAU 91. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W),
- Four (4) of the unit from outside the fence, one in each compass direction, and
- Two (2) of the ER3-3 monitoring well surface with compass directions (N and S) noted on the photograph log.

6. Photograph Documentation:

YES	NO	EXPLANATION (required if shaded box is checked)
☒	☐	
☒	☐	Log number: <i>A photo log is available electronically on the ER shared drive, under CAU 91.</i>
☐	☐	10
☐	☐	NA ☒

E. FIELD CONCLUSIONS

YES	NO	EXPLANATION (required if shaded box is checked)
☐	☒	
☒	☐	
☐	☒	
☐	☒	

Date reported: _____

Person/Agency to whom report was made: _____

5. Field conclusions/recommendations: *The UR signage and fencing are in excellent condition. There are no signs of animal burrows on the surface. No evidence of vegetation inside the fenced area or around the concrete monument pad. No issues or follow-up actions required.*

F. CERTIFICATION

I have conducted an inspection of CAU 91, Area 3 U-3fi Injection Well, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: *Glenn Richardson* Date: *9/23/08*
 Printed Name: *Glenn Richardson* Title: *Task Manager*

Attachments (check if attached):

- ☒ Field Notes
☐ Photos
☐ Maintenance records

CORRECTIVE ACTION UNIT 92 INSPECTION CHECKLISTS

THIS PAGE INTENTIONALLY LEFT BLANK

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST
CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)

Inspection Date and Time: <u>1/28/08 3:15 PM</u>	Reason for Inspection: <u>Precipitation Event > 0.5 in.</u>
Date of Last Post-Closure Inspection: <u>12/18/07</u>	Reason for Last Post-Closure Inspection: <u>Quarterly</u>
Date of Last Rain Event: <u>12/08/07 1/27/08 gdd</u>	Quantity of Rainfall in that event: <u>.63</u> inches <u>gdd</u>
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Glenn Richardson</u>	Title: <u>Task Manager</u> Organization: Environmental Restoration
Assistant Inspector: <u>Dudley Emer</u>	Title: <u>Sr. Scientist</u> Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed, including detailed comments to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector's and the rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site. This includes the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log will be completed, and an entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected quarterly, with a formal report provided to the Nevada Division of Environmental Protection annually. The annual report will include an executive summary; this inspection checklist with field notes, photographs, and photograph log; and conclusions and recommendations.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☐	☒	
b. Was maintenance performed?	☐	☒	
If maintenance was performed, has a copy of the maintenance records been obtained?	☐	☐	NA ☒
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☐	NA ☒
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☐	NA ☒

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****C. SITE INSPECTION PREPARATION**

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Are any of the use restriction signs damaged or missing?		✓	
d. Are all use restriction signs legible?	✓		
e. How many use restriction signs need to be replaced?	0		
f. Are any of the URMA signs damaged or missing?		✓	
g. Are all URMA signs legible?	✓		
h. How many URMA signs need to be replaced?	0		
i. Is the gate intact and functional?	✓		
j. Does the gate show evidence of tampering or damage?		✓	
k. Was the gate locked?	✓		
l. Does the wave barrier require repair?		✓	
m. Is there standing water within or at the fenceline?	✓		Standing water was noticed inside the NE corner of the fenceline and along the SW and SE edges of the cover.
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?	N/A		Minimal water was observed.
n. Other?			NA ✓
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	

POST-CLOSURE INSPECTION CHECKLIST

CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)

3. Waste unit cover (continued):

YES

NO

EXPLANATION

Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.

c. Is there evidence of erosion (wind or water)?

✓

d. Is there evidence of human intrusion onto the cover?

✓

e. Is there evidence of large animal intrusion onto the cover?

✓

f. Is there evidence of animal burrowing?

✓

g. Is vegetation growing on the cover?

✓

h. Other (including trash, debris, etc within fenced area)?

✓

NA

4. Subsidence survey markers:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have any of the 5 subsidence survey markers been disturbed?

✓

b. Do natural processes threaten the integrity of any subsidence survey marker?

✓

c. Is there excessive vegetation around the subsidence survey markers?

✓

d. Other?

✓

NA

5. Photograph Instructions:

A total of 8 photographs must be taken during each inspection of CAU 92. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and
- Four (4) of the unit from outside the fence, one in each compass direction.

6. Photograph Documentation:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have all photographs been taken as required by the photograph instructions?

✓

Photos are not required for Precip. event inspection

b. Has a photograph log been prepared?

✓

Log number: *N/A*

c. How many photographs were taken?

—

N/A

d. Other?

✓

NA

E. FIELD CONCLUSIONS

YES

NO

EXPLANATION (required if shaded box is checked)

1. Are more frequent inspections required?

✓

2. Are existing maintenance/repair actions satisfactory?

✓

3. Is other maintenance/repair necessary?

✓

4. Is there an imminent hazard to the integrity of the site? (Immediate report required)

✓

Date reported: _____

Person/Agency to whom report was made: _____

Inspection Requirements:

- (1) Quarterly, or
(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST

CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)

5. Field conclusions/recommendations: *Noticed standing water inside the NE corner of the fence line and along the SW and SE edges of the cover, but no standing water was observed on the actual cover. The UR signs and wave barriers were not damaged and in good condition. The chain link fencing was intact and the site was secured. No corrective actions are required.*

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature:

Date:

1/28/08

Printed Name:

Glenn Richardson

Title:

Task Manager

Attachments (check if attached):

- ☐ Field Notes
☐ Photos
☐ Maintenance records

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

Inspection Date and Time: 3/26/08 11:40 AM	Reason for Inspection: Quarterly
Date of Last Post-Closure Inspection: 1/28/08	Reason for Last Post-Closure Inspection: Precipitation Event
Date of Last Rain Event: 1/27/08	Quantity of Rainfall in that event: .63 inches
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: Glenn Richardson	Title: Task Manager
Assistant Inspector: Mike Floyd	Title: Field Technical Lead
Organization: Environmental Restoration	

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed, including detailed comments to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector's and the rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site. This includes the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log will be completed, and an entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected quarterly, with a formal report provided to the Nevada Division of Environmental Protection annually. The annual report will include an executive summary; this inspection checklist with field notes, photographs, and photograph log; and conclusions and recommendations.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	✓		
2. Has the Post-Closure Permit application been reviewed?	✓		
3. Has the Post-Closure Plan been reviewed?	✓		
4. Have the site as-built plans and site base map been reviewed?	✓		
5. Have the previous inspection reports been reviewed?	✓		
a. Were anomalies or trends detected on previous inspections?		✓	
b. Was maintenance performed?		✓	
If maintenance was performed, has a copy of the maintenance records been obtained?			NA ✓
6. Have the site maintenance and repair records been reviewed?	✓		
a. If so, has site repair resulted in a change from as-built conditions?		✓	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?			NA ✓

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****C. SITE INSPECTION PREPARATION**

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?	☐	☒	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?	☐	☒	
b. Have any fenceposts been damaged or their anchoring weakened?	☐	☒	
c. Are any of the use restriction signs damaged or missing?	☐	☒	
d. Are all use restriction signs legible?	☒	☐	
e. How many use restriction signs need to be replaced?	0		
f. Are any of the URMA signs damaged or missing?	☐	☒	
g. Are all URMA signs legible?	☒	☐	
h. How many URMA signs need to be replaced?	0		
i. Is the gate intact and functional?	☒	☐	
j. Does the gate show evidence of tampering or damage?	☐	☒	
k. Was the gate locked?	☒	☐	
l. Does the wave barrier require repair?	☐	☒	
m. Is there standing water within or at the fenceline?	☐	☒	
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?	-		N/A
n. Other?	☐	☐	NA ☒
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?	☐	☒	
b. Is there evidence of cracking?	☐	☒	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST
CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)
3. Waste unit cover (continued):

YES	NO	EXPLANATION
☐	☒	
☐	☒	
☐	☒	
☐	☒	
☒	☐	There are small amounts of vegetation sprouting on and around the perimeter of the cover.
☐	☐	NA ☒

Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.

4. Subsidence survey markers:

YES	NO	EXPLANATION (required if shaded box is checked)
☐	☒	
☐	☒	
☐	☒	
☐	☐	NA ☒

5. Photograph Instructions:

A total of 8 photographs must be taken during each inspection of CAU 92. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and
- Four (4) of the unit from outside the fence, one in each compass direction.

6. Photograph Documentation:

YES	NO	EXPLANATION (required if shaded box is checked)
☒	☐	
☒	☐	Log number: An electronic log is available on the ER shared drive, under CAU 92
☐	☐	8
☐	☐	NA ☒

E. FIELD CONCLUSIONS

YES	NO	EXPLANATION (required if shaded box is checked)
☐	☒	
☒	☐	
☒	☐	Vegetation removal and herbicide application is necessary.
☐	☒	

Date reported: _____

Person/Agency to whom report was made: _____

Inspection Requirements:

- (1) Quarterly, or
(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

5. Field conclusions/recommendations: The signage, fencing, and wave barriers were in excellent condition. There was no evidence of animal burrowing. Noticed small amount of vegetation sprouting in different areas on and around the perimeter of the cover. Vegetation removal will occur within 60 days. Also, an herbicide application will be used to prevent vegetation growth during the next few months.

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature:

Date:

3/26/08

Printed Name:

Glenn Richardson

Title:

Task Manager

Attachments (check if attached):

- ☒ Field Notes
☐ Photos
☐ Maintenance records

Inspection Requirements:

- (1) Quarterly, or
 (2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**Inspection Date and Time: *6/17/08 1130*Reason for Inspection: *QUARTERLY*Date of Last Post-Closure Inspection: *3/26/08*Reason for Last Post-Closure Inspection: *Quarterly*Date of Last Rain Event: *1/22/08*Quantity of Rainfall in that event: *.63* inches

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: *M. L. FLOYD*Title: *FTL*

Organization: Environmental Restoration

Assistant Inspector: *Paul DeWitt*Title: *FOM*

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed, including detailed comments to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector's and the rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site. This includes the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log will be completed, and an entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected quarterly, with a formal report provided to the Nevada Division of Environmental Protection annually. The annual report will include an executive summary; this inspection checklist with field notes, photographs, and photograph log; and conclusions and recommendations.

B. PREPARATION (To be completed prior to site visit)

YES

NO

EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

☒☐

2. Has the Post-Closure Permit application been reviewed?

☒☐

3. Has the Post-Closure Plan been reviewed?

☒☐

4. Have the site as-built plans and site base map been reviewed?

☒☐

5. Have the previous inspection reports been reviewed?

☒☐

a. Were anomalies or trends detected on previous inspections?

☐☒

b. Was maintenance performed?

☒☐

If maintenance was performed, has a copy of the maintenance records been obtained?

☐☐NA
☒*Vegetation Removal PRIOR to INSPECTION
5-2008*

6. Have the site maintenance and repair records been reviewed?

☒☐

a. If so, has site repair resulted in a change from as-built conditions?

☐☐NA
☒

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

☐☐NA
☒

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****C. SITE INSPECTION PREPARATION**

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		X	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		X	
b. Have any fenceposts been damaged or their anchoring weakened?		X	
c. Are any of the use restriction signs damaged or missing?		X	
d. Are all use restriction signs legible?	X		
e. How many use restriction signs need to be replaced?	—		
f. Are any of the URMA signs damaged or missing?		X	
g. Are all URMA signs legible?	X		
h. How many URMA signs need to be replaced?	—		
i. Is the gate intact and functional?	X		
j. Does the gate show evidence of tampering or damage?		X	
k. Was the gate locked?	X		
l. Does the wave barrier require repair?		X	
m. Is there standing water within or at the fenceline?		X	
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?	—		
n. Other?			NA
3. Waste unit cover:	YES	NO	EXPLANATION
a. Is there evidence of settling?		X	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
b. Is there evidence of cracking?		X	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

3. Waste unit cover (continued):	YES	NO	EXPLANATION
c. Is there evidence of erosion (wind or water)?		X	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
d. Is there evidence of human intrusion onto the cover?		X	
e. Is there evidence of large animal intrusion onto the cover?		X	
f. Is there evidence of animal burrowing?		X	
g. Is vegetation growing on the cover?	X		
h. Other (including trash, debris, etc within fenced area)?		X	NA

4. Subsidence survey markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have any of the 5 subsidence survey markers been disturbed?		X	
b. Do natural processes threaten the integrity of any subsidence survey marker?		X	
c. Is there excessive vegetation around the subsidence survey markers?		X	
d. Other?			NA X

5. Photograph Instructions:

A total of 8 photographs must be taken during each inspection of CAU 92. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and
- Four (4) of the unit from outside the fence, one in each compass direction.

6. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all photographs been taken as required by the photograph instructions?	X		
b. Has a photograph log been prepared?	X		Log number:
c. How many photographs were taken?		8	Photographs logged electronically on the ER share drive
d. Other?			NA X

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		X	
2. Are existing maintenance/repair actions satisfactory?	X		
3. Is other maintenance/repair necessary?		X	
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		X	

Date reported: _____

Person/Agency to whom report was made: _____

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

5. Field conclusions/recommendations: *The CAU 92 A-6 Decon Pond was found to be in good condition with the exception of a site veg growth on cover. Recommend as a BMP if the removal the U R surge will be updated to current guidance standards as a B.M.P. with concurrence w/ MNRA & NDEP, however, these changes are not required within the regulatory compliance period*

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature: *[Signature]*Date: *6/17/08*Printed Name: *M. L. K/04P*Title: *FTL*

Attachments (check if attached):

- ☒ Field Notes
☐ Photos
☐ Maintenance records

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST
CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)

Inspection Date and Time: 8/7/08 10:05

Reason for Inspection: Precip > 0.5" - 24 hr Per.

Date of Last Post-Closure Inspection: 6/17/08

Reason for Last Post-Closure Inspection: Quarterly insp.

 Date of Last Rain Event: ~~4/27/08~~ 8/4/08 gnd

 Quantity of Rainfall in that event: 2.63 inches
1.73 gnd

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Dudley Emer

Title: Sr Scientist

Organization: Environmental Restoration

Assistant Inspector:

Title:

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed, including detailed comments to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector's and the rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site. This includes the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log will be completed, and an entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected quarterly, with a formal report provided to the Nevada Division of Environmental Protection annually. The annual report will include an executive summary; this inspection checklist with field notes, photographs, and photograph log; and conclusions and recommendations.

B. PREPARATION (To be completed prior to site visit)

YES

NO

EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

☒
☐

2. Has the Post-Closure Permit application been reviewed?

☒
☐

3. Has the Post-Closure Plan been reviewed?

☒
☐

4. Have the site as-built plans and site base map been reviewed?

☒
☐

5. Have the previous inspection reports been reviewed?

☒
☐

a. Were anomalies or trends detected on previous inspections?

☒
☐

minor Veg. - removed

b. Was maintenance performed?

☒
☐

Veg removed

If maintenance was performed, has a copy of the maintenance records been obtained?

☒
☐

NA

6. Have the site maintenance and repair records been reviewed?

☒
☐

a. If so, has site repair resulted in a change from as-built conditions?

☐
☐

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

☐
☐

NA

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)****C. SITE INSPECTION PREPARATION**

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?	☐	☒	
2. Fencing, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?	☐	☒	
b. Have any fenceposts been damaged or their anchoring weakened?	☐	☒	
c. Are any of the use restriction signs damaged or missing?	☐	☒	
d. Are all use restriction signs legible?	☒	☐	
e. How many use restriction signs need to be replaced?	0		
f. Are any of the URMA signs damaged or missing?	☐	☒	
g. Are all URMA signs legible?	☒	☐	
h. How many URMA signs need to be replaced?	0		
i. Is the gate intact and functional?	☒	☐	
j. Does the gate show evidence of tampering or damage?	☐	☒	
k. Was the gate locked?	☒	☐	
l. Does the wave barrier require repair?	☐	☒	
m. Is there standing water within or at the fenceline?	☐	☒	
If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?	—		
n. Other?	☐	☒	NA
3. Waste unit cover:	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?	☐	☒	
b. Is there evidence of cracking?	☐	☒	

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

3. Waste unit cover (continued):

YES

NO

EXPLANATION

Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.

c. Is there evidence of erosion (wind or water)?

✓

d. Is there evidence of human intrusion onto the cover?

✓

e. Is there evidence of large animal intrusion onto the cover?

✓

f. Is there evidence of animal burrowing?

✓

g. Is vegetation growing on the cover?

✓

minor Veg on NE. Perimeter
of SW & SE Slope.

h. Other (including trash, debris, etc within fenced area)?

✓

NA

4. Subsidence survey markers:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have any of the 5 subsidence survey markers been disturbed?

✓

b. Do natural processes threaten the integrity of any subsidence survey marker?

✓

c. Is there excessive vegetation around the subsidence survey markers?

✓

d. Other?

✓

NA

5. Photograph Instructions:

A total of 8 photographs must be taken during each inspection of CAU 92. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and
- Four (4) of the unit from outside the fence, one in each compass direction.

6. Photograph Documentation:

YES

NO

EXPLANATION (required if shaded box is checked)

a. Have all photographs been taken as required by the photograph instructions?

✓

b. Has a photograph log been prepared?

✓

Log number: —

c. How many photographs were taken?

0

d. Other?

✓

NA

E. FIELD CONCLUSIONS

YES

NO

EXPLANATION (required if shaded box is checked)

1. Are more frequent inspections required?

✓

2. Are existing maintenance/repair actions satisfactory?

✓

3. Is other maintenance/repair necessary?

✓

4. Is there an imminent hazard to the integrity of the site?
(Immediate report required)

✓

Date reported: _____

Person/Agency to whom report was made: _____

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

5. Field conclusions/recommendations:

Lake bed at CAU 92 were dry
in a good condition.
Minor Vegetation was noted along DE Corner of
Cover extending down the Side Slope of Pen. p. 10.

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature:

Date:

Printed Name:

Title:

Attachments (check if attached):

- ☐ Field Notes
☐ Photos
☐ Maintenance records

Inspection Requirements:

- (1) Quarterly, or
 (2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

Inspection Date and Time: <u>9/23/08 11:30AM</u>	Reason for Inspection: <u>Quarterly</u>
Date of Last Post-Closure Inspection: <u>8/7/08</u>	Reason for Last Post-Closure Inspection: <u>Precipitation Event</u>
Date of Last Rain Event: <u>8/4/08</u>	Quantity of Rainfall in that event: <u>.73</u> inches
Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada	
Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project	
Chief Inspector: <u>Glenn Richardson</u>	Title: <u>Task Manager</u> Organization: Environmental Restoration
Assistant Inspector: <u>Robert Green</u>	Title: <u>Field Technical Lead</u> Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

- All checklist items must be completed, including detailed comments to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
- Any checklist line item marked in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector's and the rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
- The site inspection is a walking inspection of the entire site. This includes the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
- A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log will be completed, and an entry will be made for each photograph taken.
- Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
- This unit will be inspected quarterly, with a formal report provided to the Nevada Division of Environmental Protection annually. The annual report will include an executive summary; this inspection checklist with field notes, photographs, and photograph log; and conclusions and recommendations.

B. PREPARATION (To be completed prior to site visit)	YES	NO	EXPLANATION (required if shaded box is checked)
1. Has the Post-Closure Permit been reviewed?	☒	☐	
2. Has the Post-Closure Permit application been reviewed?	☒	☐	
3. Has the Post-Closure Plan been reviewed?	☒	☐	
4. Have the site as-built plans and site base map been reviewed?	☒	☐	
5. Have the previous inspection reports been reviewed?	☒	☐	
a. Were anomalies or trends detected on previous inspections?	☒	☐	<u>Vegetation on and around the perimeter of the cover was noticed in Mar. 2008 and June 2008.</u>
b. Was maintenance performed?	☒	☐	<u>Vegetation removal activities were completed in May 2008 and Aug. 2008.</u>
If maintenance was performed, has a copy of the maintenance records been obtained?	☒	☐	NA <u>Maintenance records are kept in an electronic database for Solid Waste maintenance services.</u>
6. Have the site maintenance and repair records been reviewed?	☒	☐	
a. If so, has site repair resulted in a change from as-built conditions?	☐	☒	NA
b. If yes (to 6a), are revised as-built plans available that reflect repair changes?	☐	☐	NA ☒

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST
CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)
C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION
1. Adjacent off-site features:

YES	NO	EXPLANATION (required if shaded box is checked)
☐	☒	

- a. Are there any new activities or features on Yucca Lake that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?

2. Fencing, gates, and signs:

YES	NO	EXPLANATION (required if shaded box is checked)
☐	☒	
☐	☒	
☐	☒	
☒	☐	
☐	☐	As a best management practice, all UR signs will be updated to meet current guidance standards.
☐	☒	
☒	☐	
☐	☐	0
☒	☐	
☐	☒	
☒	☐	
☐	☒	
☒	☐	Small sections of the wave barrier need to be repaired.
☐	☒	
☐	☐	N/A
☐	☐	NA

- a. Is there damage to or a break in the fence?

- b. Have any fenceposts been damaged or their anchoring weakened?

- c. Are any of the use restriction signs damaged or missing?

- d. Are all use restriction signs legible?

- e. How many use restriction signs need to be replaced?

- f. Are any of the URMA signs damaged or missing?

- g. Are all URMA signs legible?

- h. How many URMA signs need to be replaced?

- i. Is the gate intact and functional?

- j. Does the gate show evidence of tampering or damage?

- k. Was the gate locked?

- l. Does the wave barrier require repair?

- m. Is there standing water within or at the fenceline?

If yes, what is the playa water elevation, as measured on the depth gauge attached to the fence perimeter?

- n. Other?

3. Waste unit cover:

YES	NO	EXPLANATION
☐	☒	Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
☐	☒	

- a. Is there evidence of settling?

- b. Is there evidence of cracking?

Inspection Requirements:

(1) Quarterly, or

(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST
CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)

3. Waste unit cover (continued):	YES	NO	EXPLANATION
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?	✓		Vegetation was discovered on the northeast perimeter of the cover.
h. Other (including trash, debris, etc within fenced area)?		✓	NA

Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.

4. Subsidence survey markers:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have any of the 5 subsidence survey markers been disturbed?		✓	
b. Do natural processes threaten the integrity of any subsidence survey marker?		✓	
c. Is there excessive vegetation around the subsidence survey markers?		✓	
d. Other?		✓	NA

5. Photograph Instructions:

A total of 8 photographs must be taken during each inspection of CAU 92. Additional photographs may also be taken. The required photographs shall be taken as follows:

- Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and
- Four (4) of the unit from outside the fence, one in each compass direction.

6. Photograph Documentation:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have all photographs been taken as required by the photograph instructions?	✓		
b. Has a photograph log been prepared?	✓		Log number: A photo log is available electronically on the ER shared drive, under CAU92.
c. How many photographs were taken?		15	
d. Other?	✓		NA Additional photos were taken to show vegetation after herbicide, vegetation requiring removal, and wave barriers needing repair.

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?	✓		Vegetation removal activities are necessary within 60 days of discovery.
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		✓	

Date reported: _____

Person/Agency to whom report was made: _____

Inspection Requirements:

- (1) Quarterly, or
(2) Rain Event of >0.5 inches in 24 hours

POST-CLOSURE INSPECTION CHECKLIST**CAU 92: AREA 6 DECON POND FACILITY - CAS 06-05-02: Decontamination Pond (RCRA)**

5. Field conclusions/recommendations: *The site is secured. The UR signage and chain link fencing are in great condition. There were some open gaps noticed in the wave barriers on the east side of the fence. Repairs will be made to those wave barrier sections. In addition, vegetation was noticed on the northeast corner of the cover that will have to be removed. Maintenance/repair activities will be completed within 60 days.*

F. CERTIFICATION

I have conducted an inspection of CAU 92, Area 6 Decon Pond Facility, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature:

Date:

9/23/08

Printed Name:

Glenn Richardson

Title:

Task Manager

Attachments (check if attached):

- ☒ Field Notes
☐ Photos
☐ Maintenance records

CORRECTIVE ACTION UNIT 110 INSPECTION CHECKLISTS

THIS PAGE INTENTIONALLY LEFT BLANK

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

Inspection Date and Time: 9/23/08 10:32AM

Reason for Inspection: Quarterly

Date of Last Post-Closure Inspection: 6/5/08

Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn Richardson

Title: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Robert Green

Title: Field Technical Lead

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. A standard set of color photographs is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photograph log entry will be made for each photograph taken.
5. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
6. This unit will be inspected quarterly with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes and photograph log attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

☒
☐
☐

2. Has the Post-Closure Permit application been reviewed?

☒
☐
☐

3. Has the Post-Closure Plan been reviewed?

☒
☐
☐

4. Have the site as-built plans and site base map been reviewed?

☒
☐
☐

5. Have the previous inspection reports been reviewed?

☒
☐
☐

a. Were anomalies or trends detected on previous inspections?

☐
☒
☐

b. Was maintenance performed?

☐
☒
☐

If maintenance was performed, has a copy of the maintenance records been obtained?

☐
☐
☐

NA

☒

6. Have the site maintenance and repair records been reviewed?

☒
☐
☐

a. If so, has site repair resulted in a change from as-built conditions?

☐
☐
☐

NA

☒

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

☐
☐
☐

NA

☒

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

- a. Camera, film, and batteries
- b. Keys to locks
- c. Clipboard
- d. Tape measure
- e. Radio, pager, etc.
- f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans
- g. Other miscellaneous support equipment

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Is there damage to or a break in the chicken wire fence?		✓	
c. Have any fenceposts been damaged or their anchoring weakened?		✓	
d. Is the gate intact and functional?	✓		
e. Does the gate show evidence of tampering or damage?		✓	
f. Was the gate locked?	✓		
g. Are any of the use restriction signs damaged or missing?		✓	
h. Are all use restriction signs legible?	✓		
i. How many use restriction signs need to be replaced?	0		As a best management practice, all UR signs will be updated to meet current guidance standards.
j. Other?			NA ✓
3. Waste unit cover (Western portion, "ax"):	YES	NO	EXPLANATION { Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?	✓		A few small animal burrows were noticed, but no follow-up action is required.
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓	
h. Other (including trash, debris, etc within fenced area)?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

				EXPLANATION
4. Waste unit cover (Eastern portion, "bx"): <div style="float: right; font-size: small;">Required if shaded box is checked. If checked, specify dimensions, quantity, and/or other information to describe conditions.</div>				
a. Is there evidence of settling?		✓		
b. Is there evidence of cracking?	✓			Small cracks were noticed on the cover, but the cracks were not significant to warrant a follow-up action.
c. Is there evidence of erosion (wind or water)?		✓		
d. Is there evidence of human intrusion onto the cover?		✓		
e. Is there evidence of large animal intrusion onto the cover?		✓		
f. Is there evidence of animal burrowing?		✓		
g. Is there a change or difference in vegetation (i.e., is the vegetation growing on the cover inconsistent with the naturally-occurring vegetation growing outside of the unit)?		✓		
h. Other (including trash, debris, etc within fenced area)?			NA ✓	
5. Subsidence survey markers and TDR Probes:				
	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have any of the 7 subsidence survey markers been disturbed?		✓		
b. Do natural processes threaten the integrity of any subsidence survey marker?		✓		
c. Is there excessive vegetation around the subsidence survey markers?		✓		
d. Is there any evidence that TDR probes have been disturbed or the wires damaged?		✓		
e. Other?			NA ✓	
6. Photograph Instructions:				
A total of 8 photographs are required to be taken during each inspection of CAU 110. Additional photographs may also be taken. The required photographs shall be taken as follows: <ul style="list-style-type: none"> Four (4) from the center of the unit, one in each compass direction (i.e., N, S, E, W) and Four (4) of the unit from outside the fence, one in each compass direction. 				
7. Photograph Documentation:				
	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have all photographs been taken as required by the photograph instructions?	✓			
b. Has a photograph log been prepared?	✓		Log number: An electronic log is available on the ER Shared Drive, under CAU 110.	
c. How many photographs were taken?	8			
d. Other?			NA ✓	
E. FIELD CONCLUSIONS				
	YES	NO	EXPLANATION (required if shaded box is checked)	
1. Are more frequent inspections required?		✓		
2. Are existing maintenance/repair actions satisfactory?	✓			
3. Is other maintenance/repair necessary?		✓		

POST-CLOSURE INSPECTION CHECKLIST

CAU 110: AREA 3 WMD U-3ax/bl CRATER - CAS 03-23-04: U-3axbl Subsidence Crater

E. FIELD CONCLUSIONS (continued)

YES

NO

EXPLANATION (required if shaded box is checked)

4. Is there an imminent hazard to the integrity of the unit?
(Immediate report required)

Person/Agency to whom report was made:

5. Field conclusions/recommendations: *The fencing and UR signs are in good condition. Subsidence repair areas appear to be intact and well-maintained. Minor evidence of animal burrows. Noticed some small cracks, but nothing was determined significant warranting follow-up action. Overall site conditions are good and there are no issues.*

F. CERTIFICATION

I have conducted an inspection of CAU 110, Area 3 WMD U-3ax/bl Crater, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, field notes, photographs, and photograph logs.

Chief Inspector's Signature:

Glenn Richardson

Date:

9/23/08

Printed Name:

Glenn Richardson

Title:

Task Manager

Attachments (check if attached):

- ☒ Field Notes
☐ Photos
☐ Maintenance records

CORRECTIVE ACTION UNIT 112 INSPECTION CHECKLISTS

THIS PAGE INTENTIONALLY LEFT BLANK

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

Inspection Date and Time: 12/18/07 12:02 PM

Reason for Inspection: Quarterly Inspec.

Date of Last Post-Closure Inspection: 9/27/07

Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Jeffrey L. Smith, Deputy Manager, Environmental Restoration

Chief Inspector: Glenn Richardson Title: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Dudley Emer Title: Sr. Scientist

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
5. This unit will be inspected quarterly with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

✓

2. Has the Post-Closure Permit application been reviewed?

✓

3. Has the Post-Closure Plan been reviewed?

✓

4. Have the site as-built plans and site base map been reviewed?

✓

5. Have the previous inspection reports been reviewed?

✓

a. Were anomalies or trends detected on previous inspections?

✓

b. Was maintenance performed?

✓

If maintenance was performed, has a copy of the maintenance records been obtained?

NA

6. Have the site maintenance and repair records been reviewed?

✓

a. If so, has site repair resulted in a change from as-built conditions?

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

a. Camera, film, and batteries

e. Radio, pager, etc.

b. Keys to locks

f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans

c. Clipboard

g. Other miscellaneous support equipment

d. Tape measure

POST-CLOSURE INSPECTION CHECKLIST**CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)****D. SITE INSPECTION**

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓		
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Is there damage to or a break in the fence?		✓		
b. Have any fenceposts been damaged or their anchoring weakened?		✓		
c. Is the gate intact and functional?	✓			
d. Does the gate show evidence of tampering or damage?		✓		
e. Was the gate locked?	✓			
f. Are any of the use restriction signs damaged or missing?		✓		
g. Are all use restriction signs legible?	✓			
h. How many use restriction signs need to be replaced?	0			
i. Other?			NA	✓
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Have landfill monuments been disturbed?		✓		
b. Do natural processes threaten the integrity of any landfill monuments?		✓		
c. Is there excessive vegetation around the landfill monuments?		✓		
d. Other?			NA	✓
4. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)	
a. Is there evidence of settling?		✓		
b. Is there evidence of cracking?		✓		
c. Is there evidence of erosion (wind or water)?		✓		
d. Is there evidence of human intrusion onto the cover?		✓		
e. Is there evidence of large animal intrusion onto the cover?		✓		
f. Is there evidence of animal burrowing?		✓		
g. Is vegetation growing on the cover?		✓		
h. Other (including trash, debris, etc within fenced area)?			NA	✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Photograph Documentation (optional):	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		✓	
If yes, how many photos were taken?			
If yes, has a photographic log been prepared?		✓	Log number:

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?		✓	
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		✓	
Date reported: _____			
Person/Agency to whom report was made: _____			

5. Field conclusions/recommendations: Downing, Signs, Cover & grounds
are in good repair with no
problems noted

F. CERTIFICATION

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature: <u>Glenn Richardson</u>	Date: <u>12/18/07</u>
Printed Name: <u>Glenn Richardson</u>	Title: <u>Task Manager</u>

Attachments (check if attached):

- ☒ Field Notes
☐ Maintenance records

POST-CLOSURE INSPECTION CHECKLIST**CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)**Inspection Date and Time: 3/26/08 12:28 PMReason for Inspection: QuarterlyDate of Last Post-Closure Inspection: 12/18/07Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn RichardsonTitle: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Mike FloydTitle: Field Technical Lead

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
5. This unit will be inspected quarterly with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

☒☐

2. Has the Post-Closure Permit application been reviewed?

☒☐

3. Has the Post-Closure Plan been reviewed?

☒☐

4. Have the site as-built plans and site base map been reviewed?

☒☐

5. Have the previous inspection reports been reviewed?

☒☐

a. Were anomalies or trends detected on previous inspections?

☐☒

b. Was maintenance performed?

☐☒

If maintenance was performed, has a copy of the maintenance records been obtained?

☐☐NA ☒

6. Have the site maintenance and repair records been reviewed?

☒☐

a. If so, has site repair resulted in a change from as-built conditions?

☐☒NA ☐

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

☐☐NA ☒**C. SITE INSPECTION PREPARATION**

Assemble the following, as needed, to conduct inspections:

a. Camera, film, and batteries

b. Keys to locks

c. Clipboard

d. Tape measure

e. Radio, pager, etc.

f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans

g. Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?	✓		A strand of barbed wire fencing is down that needs repair or replacement
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA ✓
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have landfill monuments been disturbed?		✓	
b. Do natural processes threaten the integrity of any landfill monuments?		✓	
c. Is there excessive vegetation around the landfill monuments?		✓	
d. Other?			NA ✓
4. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?	✓		Noticed vegetation growing on the cover. Also, noticed vegetation on the side of the cover.
h. Other (including trash, debris, etc within fenced area)?			NA ✓

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Photograph Documentation (optional):	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		☒	
If yes, how many photos were taken?	—		
If yes, has a photographic log been prepared?			Log number:

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?	☒	☒	
2. Are existing maintenance/repair actions satisfactory?	☒	☒	
3. Is other maintenance/repair necessary?	☒		Vegetation removal is required within 60 days.
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)	☒	☒	

Date reported: _____

Person/Agency to whom report was made: _____

5. Field conclusions/recommendations: *The signage and aboveground monuments are in excellent condition. Also, the rip rap is maintained very well. There are no erosion problems or subsidence on the cover. However, vegetation growth was noticed on top and along the side slope of the cover. Vegetation will be removed and an herbicide will applied to prevent vegetation growth in the near future.*

F. CERTIFICATION

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature: <i>Glenn Richardson</i>	Date: <i>3/26/08</i>
Printed Name: <i>Glenn Richardson</i>	Title: <i>Task Manager</i>

Attachments (check if attached):

- ☒ Field Notes
☐ Maintenance records

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

Inspection Date and Time: 6/17/08 1220

Reason for Inspection: QUARTERLY

Date of Last Post-Closure Inspection: 3/26/08

Reason for Last Post-Closure Inspection: QUARTERLY

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: MIKE FLOYD

Title: FTL

Organization: Environmental Restoration

Assistant Inspector: PAUL DELWITT

Title: FOM

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
5. This unit will be inspected quarterly with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)

YES NO EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

X

2. Has the Post-Closure Permit application been reviewed?

X

3. Has the Post-Closure Plan been reviewed?

X

4. Have the site as-built plans and site base map been reviewed?

X

5. Have the previous inspection reports been reviewed?

X

a. Were anomalies or trends detected on previous inspections?

X

X

MSE FENCE

b. Was maintenance performed?

X

FENCE REPAIRED & VEGETATION REMOVAL PERFORMED IN 5/08

If maintenance was performed, has a copy of the maintenance records been obtained?

NA

6. Have the site maintenance and repair records been reviewed?

X

a. If so, has site repair resulted in a change from as-built conditions?

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

a. Camera, film, and batteries

b. Keys to locks

c. Clipboard

d. Tape measure

e. Radio, pager, etc.

f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans

g. Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)
D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		X	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		X	
b. Have any fenceposts been damaged or their anchoring weakened?		X	
c. Is the gate intact and functional?	X		
d. Does the gate show evidence of tampering or damage?		X	
e. Was the gate locked?	X		
f. Are any of the use restriction signs damaged or missing?	X		MSF Signs Need to Be Re-hung (Tightened to Fence)
g. Are all use restriction signs legible?	X		
h. How many use restriction signs need to be replaced?			
i. Other?			NA X
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have landfill monuments been disturbed?		X	
b. Do natural processes threaten the integrity of any landfill monuments?		X	
c. Is there excessive vegetation around the landfill monuments?		X	
d. Other?			NA X
4. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		X	
b. Is there evidence of cracking?		X	
c. Is there evidence of erosion (wind or water)?		X	
d. Is there evidence of human intrusion onto the cover?		X	
e. Is there evidence of large animal intrusion onto the cover?		X	
f. Is there evidence of animal burrowing?		X	
g. Is vegetation growing on the cover?		X	
h. Other (including trash, debris, etc within fenced area)?			NA X

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Photograph Documentation (optional):	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		X	N/A
If yes, how many photos were taken?	—		
If yes, has a photographic log been prepared?			Log number:

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		X	
2. Are existing maintenance/repair actions satisfactory?	X		
3. Is other maintenance/repair necessary?		X	
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		X	
Date reported: _____			
Person/Agency to whom report was made: _____			

5. Field conclusions/recommendations: *CAU 112 was Found to be in good Condition with the Exception of 2 Signs Found to Be Loose on the North Fence line. These Signs will Be Tightened to the Fence.*

F. CERTIFICATION

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature: <i>M. K. Floyd</i>	Date: <i>6/17/08</i>
Printed Name: <i>M. K. FLOYD</i>	Title: <i>FTL</i>

Attachments (check if attached):

- ☒ Field Notes
☐ Maintenance records

POST-CLOSURE INSPECTION CHECKLIST**CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)**Inspection Date and Time: 9/23/08 12:20 PMReason for Inspection: QuarterlyDate of Last Post-Closure Inspection: 6/17/08Reason for Last Post-Closure Inspection: Quarterly

Responsible Entity: NSTec Environmental Restoration, Nevada Test Site, Mercury, Nevada

Responsible Facility Owner: Thomas A. Thiele, Project Manager, Industrial Sites, Environmental Restoration Project

Chief Inspector: Glenn RichardsonTitle: Task Manager

Organization: Environmental Restoration

Assistant Inspector: Robert GreenTitle: Field Technical Lead

Organization: Environmental Restoration

A. GENERAL INSTRUCTIONS

1. All checklist items must be completed and detailed comments made to document the results of the site inspection. The completed checklist is part of the field record of the inspection. Additional pages should be used as necessary to ensure that a complete record is made. Attach the additional pages and number all pages upon completion of the inspection.
2. Any checklist line item marked by an inspector in a SHADED BOX must be fully explained or an appropriate reference to previous reports provided. The purpose of this requirement is to provide a written explanation of inspector observations and the inspector's rationale for conclusions and recommendations. Explanations are to be placed on additional attachments and cross-referenced appropriately. Explanations, in addition to narrative, will take the form of sketches, measurements, and annotated site maps.
3. The site inspection is a walking inspection of the entire site including the perimeter and sufficient transects to be able to inspect the entire surface and all features specifically described in this checklist.
4. Field notes taken to assist in completion of this checklist will become part of the inspection record. No form is specified for field notes; however, they must be legible and in sufficient detail to enable review by succeeding inspectors and the responsible agency.
5. This unit will be inspected quarterly with formal reporting to the Nevada Division of Environmental Protection to be done annually. The annual report will include an executive summary, this inspection checklist with field notes attached, and recommendations and conclusions.

B. PREPARATION (To be completed prior to site visit)

YES

NO

EXPLANATION (required if shaded box is checked)

1. Has the Post-Closure Permit been reviewed?

☒☐

2. Has the Post-Closure Permit application been reviewed?

☒☐

3. Has the Post-Closure Plan been reviewed?

☒☐

4. Have the site as-built plans and site base map been reviewed?

☒☐

5. Have the previous inspection reports been reviewed?

☒☐

a. Were anomalies or trends detected on previous inspections?

☐☒

b. Was maintenance performed?

☒☐*Sign maintenance and fence repair activities were completed on 8/7/08.*

If maintenance was performed, has a copy of the maintenance records been obtained?

☒☐

NA

Maintenance records are kept in an electronic database for Solid Waste maintenance services.

6. Have the site maintenance and repair records been reviewed?

☒☐

a. If so, has site repair resulted in a change from as-built conditions?

☐☒

NA

b. If yes (to 6a), are revised as-built plans available that reflect repair changes?

☐☐

NA

C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

a. Camera, film, and batteries

b. Keys to locks

c. Clipboard

d. Tape measure

e. Radio, pager, etc.

f. Previous Post-Closure Report, Inspection Checklists, repair records, and as-built plans

g. Other miscellaneous support equipment

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)
D. SITE INSPECTION

1. Adjacent off-site features:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Are there any new activities or features in the vicinity that could potentially affect the site (e.g., activities that change the flow of surface water or are encroaching the unit)?		✓	
2. Fences, gates, and signs (East Fenced Enclosure):	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there damage to or a break in the fence?		✓	
b. Have any fenceposts been damaged or their anchoring weakened?		✓	
c. Is the gate intact and functional?	✓		
d. Does the gate show evidence of tampering or damage?		✓	
e. Was the gate locked?	✓		
f. Are any of the use restriction signs damaged or missing?		✓	
g. Are all use restriction signs legible?	✓		
h. How many use restriction signs need to be replaced?		0	
i. Other?			NA ✓
3. Monuments:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Have landfill monuments been disturbed?		✓	
b. Do natural processes threaten the integrity of any landfill monuments?		✓	
c. Is there excessive vegetation around the landfill monuments?		✓	
d. Other?			NA ✓
4. Waste unit cover:	YES	NO	EXPLANATION (required if shaded box is checked)
a. Is there evidence of settling?		✓	
b. Is there evidence of cracking?		✓	
c. Is there evidence of erosion (wind or water)?		✓	
d. Is there evidence of human intrusion onto the cover?		✓	
e. Is there evidence of large animal intrusion onto the cover?		✓	
f. Is there evidence of animal burrowing?		✓	
g. Is vegetation growing on the cover?		✓	
h. Other (including trash, debris, etc within fenced area)?		✓	NA

POST-CLOSURE INSPECTION CHECKLIST

CAU 112: AREA 23 HAZARDOUS WASTE TRENCHES - CAS 23-21-02: Area 23 Haz. Waste Trenches (RCRA)

5. Photograph Documentation (optional):	YES	NO	EXPLANATION
a. Have photographs been taken of the site?		✓	Photos are not required for CAU 112.
If yes, how many photos were taken?	N/A		
If yes, has a photographic log been prepared?		✓	Log number: N/A

E. FIELD CONCLUSIONS	YES	NO	EXPLANATION (required if shaded box is checked)
1. Are more frequent inspections required?		✓	
2. Are existing maintenance/repair actions satisfactory?	✓		
3. Is other maintenance/repair necessary?		✓	
4. Is there an imminent hazard to the integrity of the site? (Immediate report required)		✓	

Date reported: _____

Person/Agency to whom report was made: _____

5. Field conclusions/recommendations: The UR signage, fencing, and aboveground monuments are in excellent condition. No evidence of vegetation on top of the riprap cover. There are no issues at this site.

F. CERTIFICATION

I have conducted an inspection of CAU 112, Area 23 Hazardous Waste Trenches, in accordance with the procedures of the Post-Closure Permit (including the Post-Closure Plan) as recorded on this checklist, attached sheets, and field notes.

Chief Inspector's Signature: <u>Glenn Richardson</u>	Date: <u>9/23/08</u>
Printed Name: <u>Glenn Richardson</u>	Title: <u>Task Manager</u>

Attachments (check if attached):

- ☒ Field Notes
☐ Maintenance records

APPENDIX B.

FIELD NOTES

THIS PAGE INTENTIONALLY LEFT BLANK

DECEMBER 18, 2007

THIS PAGE INTENTIONALLY LEFT BLANK

TITLE

Work continued from Page _____

PROJECT NO.

BOOK NO.

169

(CAU 92) Area 6 Decon Pond Precipitation Inspection

12/11/07

Scope:

Arrived @ 1:07 PM to inspect level of precipitation on the waste unit cover. Received an e-mail notification from the UCC MEDA Station that the level of precipitation exceeded our regulatory threshold of 0.5 in. on 12/8/07 (Saturday). The precipitation event reached a level of 0.8 in.

Personnel: Glenn Richardson, Task Manager
Dudley Emer, Sr. Scientist

Equipment: Camera, Radio

Performed a site walkdown around the Decon Pond fenced area. Noticed standing water inside the NE corner of the fenced area, but was not observed on the waste unit cover. The fencing and UR signage is in good condition. Also, the wave barriers are not damaged and appear to be maintaining their stability. The site is in great condition and was not adversely affected by the precipitation event. There are no issues or concerns associated with this site. Leaving the site at 1:23 PM

Glenn Richardson

RCRA Post Closure Inspections - December 18, 2007

Personnel: Glenn Richardson - NSTec Task Mgr.

Dudley Emer - NSTec Senior Scientist, Greg Doyle - NSTec Engine Geologi

Visitors: Ted Zaferatos - NDEP

Kevin Cabbie, Janis Romo - NNSA

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60605 Made in USA

Work continued to Page 170

SIGNATURE

Glenn Richardson

DATE

12/18/07

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

Work continued from Page 169

Scope: Perform quarterly and semiannual post closure site inspections for the following CAUs: 90, 92, 110, + 112

Equipment: Camera

Weather Conditions: Cloudy, Extremely Low-Mid 30's

PPE: Standard Level D (hard hats are optional)

8:55AM - Left Mercury in Route to Area 2 Bitcutter Site

9:38AM - Arrived @ CAU 90 Bitcutter

Performed a Tailgate Safety Briefing w/ NNSA + NDEP.

- Discussed Cold Stress conditions, Slips/trips/fall hazards
- " balanced consumption of water to prevent dehydration
- " buddy system during walkdown

9:45AM - Performed site inspection @ CAU 90. Overall site conditions are good. There are no signs of vegetation growth. The chain link fencing and signage are in good condition. Noticed a small animal burrow inside the west fenced area; however, this not significant enough to warrant a corrective action.

9:54AM - Leaving CAU 90 in route to CAU 110 U3ax/bl.

10:10AM - Arrived @ CAU 110 and started site inspection. Greg Doyle met us at the site and participated in the site inspection. The fencing and signage looked good and was well-maintained. There were a few animal burrows identified. A follow-up action will be taken to contact D. Anderson (ecological services) to plan a site ^{visit} prior to the March inspection period. We also discovered a new crack greater than 6 ft. on the surface (lateral extent) on the east edge of the cover. Photos were taken for documentation and repair is necessary within 60 days. After discussing our observations

SIGNATURE

DATE

12/18/07

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

Work continued from Page 170

with NNSA and NDEP, we departed the site in route to CAU 92.

Greg Doyle returned to Mercury after the 110 inspection.

11:18 AM - Arrived @ CAU 92 and performed site inspection.

Overall site conditions are great. The fencing and UR signage are well maintained. No evidence of vegetation growth.

The wave barriers are not damaged. Photo documentation was taken at this site. No issues or concerns. Left CAU 92 in route to CAU 112.

12:02 PM - Arrived @ CAU 112 and performed a site inspection.

Drove around Area 23 waste trenches to find no observations that warranted a corrective action. The UR signs and aboveground monuments are in good condition. No evidence of vegetation growth. Left CAU 112 and headed to ER Dorms.

12:10 PM - Debrief of all observations was discussed w/ NNSA and NDEP. NNSA + NDEP left the dorms in route to Mercury. End of Inspections at 12:15 PM.

Note: Photos ^{that} were taken ~~at~~ ^{will be} logged on the ER Shared Drive.

Glen R. [Signature]

SIGNATURE

Glen R. [Signature]

DATE

12/18/07

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

THIS PAGE INTENTIONALLY LEFT BLANK

MARCH 26, 2008

THIS PAGE INTENTIONALLY LEFT BLANK

RCRA Post Closure Inspections - March 26, 2008

Personnel: Glenn Richardson - NSTec Task Manager
 Greg Doyle - NSTec Engineering Geologist / ~~Steve Munns~~ ^{Paul Perez} - NSTec
 Mike Floyd ER - NSTec Field Technical Lead ^{SR} Lead RCT

Visitors: Ted Zaferatos - NDEP
 Kevin Cabbie - NNSA

Scope: Perform quarterly and semi-annual post closure site inspections for the following CAUs: 91, 92, 110, and 112

Equipment: Camera, Measurement Ruler, Radiological Survey/Screening Equipment

Weather Conditions: Sunny, ^{Mid} Low 80s
 PPE: Standard Level D

9:38AM - Left Mercury in Route to Area 3 ^{u3 ax/b1} ~~u3fi Injection Well~~ ^{SR}
 10:20AM - Arrived @ CAU ^{110 (URMA)} ~~u3fi Injection Well~~ ^{SR} ~~u3 ax/b1~~ ^(Agenda was modified in route to Area 3)
 Performed a Tailgate Safety Briefing w/ NNSA & NDEP

- Discussed desert terrain and the potential for slips, trips, and falls
- Biological hazards and being cognizant of surroundings.
- Making sure a balanced consumption of water is maintained.
- Be aware of potential heat stress conditions as the morning progresses
- Maintain the buddy system throughout the walkdown
- Lastly, "When in doubt, ask the question"

SIGNATURE

DATE

3/26/08

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

Performed site walk down of U3ax/b1. The ~~previous~~^{BR} most recent subsidence repair areas were observed and determined stable and in good condition. There were no new cracks or settling imperfections discovered by the engineering representative or walkdown group. The vegetation was mature in growth and the signage and fencing were in good condition. The white snow fencing at the initial entrance showed signs of degrading over time, but still maintained a physical barrier at the site. No corrective actions are necessary at this time, but a more durable fence could be considered as a best management practice in the near future. There was evidence of animal burrowing noticed in clustered areas; however, no immediate actions were warranted. Instead, the ecological services organization will be contacted to confirm their schedule for performing small mammal trapping activities prior to the next inspection period in June 2008. There were no issues or concerns identified by NNSA or NDEP that warranted an immediate follow-up action. (Note: Upon arrival at U3ax/b1, we were greeted by a geologist tour group, but their presence did not interfere or affect the inspection of the engineered cover.)

11:05 AM - Leaving U3ax/b1 in route to CAU 91.

11:10 AM - Arrived @ CAU 91 Area 3 U3fi Injection Well

Performed our inspection of the site. The signage and fencing were in good condition. There was no evidence of animal burrowing at the site. Noticed a large amount of vegetation that had grown within the last 6-month period. Vegetation removal is necessary within 60 days. Also, herbicide will be sprayed to prevent vegetation growth in the future.

SIGNATURE

DATE

3/26/08

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

Photo documentation was ~~performed~~^{done} taken as well.

11:20 AM - Leaving 43fi in route to CAU 92.

11:40 AM - Arrived @ CAU 92 Decon Pond - (URMA)

Performed our inspection of the site to find signage and fencing in great condition. Also, the wave barriers were in good condition. There was no evidence of animal burrowing. Noticed small signs of vegetation starting to sprout on the cover. This site should be included in the list to receive vegetation removal. Also, herbicide will be applied to the site. Photo documentation was taken at the site as well.

12:00 PM - Leaving Decon Pond in route to CAU 112

12:28 PM - Arrived @ CAU 112 Area 23 Hazardous Waste Trenches

Performed a drive around inspection of the site. Noticed one strand of barb wire loose on the east side of the fence. In addition, noticed vegetation sprouting through the rip-rap on top^{of} of the cover and the cover's slide slope. Barb wire will be replaced or repaired. Vegetation removal activities will be performed and barb wire fencing repaired within 60 days.

12:35 PM - Leaving CAU 112 for lunch. End of RCRA inspections.

Note: RCT coverage was provided for the RCRA Inspections as an ER BMP.

Glen Richardson

SIGNATURE

Glen Richardson

DATE

3/26/08

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

THIS PAGE INTENTIONALLY LEFT BLANK

JUNE 17, 2008

THIS PAGE INTENTIONALLY LEFT BLANK

6/17/08

RCRA INSPECTION

NSTec

Mike FLORE - ETC

Paul Dawitt -

PAUL PEREZ - RET.

VISITORS

Kevin CARR - DOE

Ted Z - STATE

CAU 90 - Bit Cutter

1000 - ARRIVE on Location, talk about Safety,
Collect the following PHOTOS 1. WEST UNIT - Looking N.

Looking E.

Looking S

2 EAST UNIT - Looking S.

Looking W.

Looking N.

Light Vegetation upon Both Units needs to
Be Removed. Change Signs on Both to reflect
NSTec + Check Phone # to be sure it is
Correct. Signs, Fencing, Gates, Pads were
Found to Be in good Condition and Locked.

1075 - Leave Location head for CAU 110

1050 - ARRIVE at CAU 110, Inspection has already been
Completed on 6/5/08. going to walk the site
w/ Ted & Kevin.

1115 - Leaving CAU 110, going to Decon Pond, no issues
or concerns at CAU 110.

1130 - ARRIVE at CAU 92. General Site Conditions in good
shape. Little Vegetation (not a problem currently) Recommend

TITLEWork continued from Page 164PROJECT NO. PCAR InspectionBOOK NO. 1656/17/08

1130 cont. - Spraying w/Herbicide to remove them in the
Near Future Prior to next Inspection.

1155 - Leaving Cam 92, Head for Cam 112

1220 - Arrive at Cam 112, Site was found to be in
Good Condition, 2 signs on the north side
were loose and need to be re attached. But
Overall Site Condition was found to be in good
Condition

1235 - Return to Camp

10

15

20

25

SEPTEMBER 23, 2008

THIS PAGE INTENTIONALLY LEFT BLANK

RCRA Post Closure Inspections - Sept. 23, 2008

Personnel: Glenn Richardson - NSTec Task Manager

Robert Green - NSTec Field Technical Lead

5 Greg Doyle - NSTec Engineering Geologist

Visitors: Ted Zaferatos - NDEP

Kevin Cabbie - NNSA

Tom Thiele - NSTec ER Project Manager

10 Scope: Perform quarterly PCM site inspections for the following
CAUs: 92, 110, and 112.

Perform semi-annual PCM site inspection for CAU 91.

Equipment: Camera

15 Weather Conditions: Sunny, Low 70s

PPE: Standard Level D (no hard hats required)

9:28 AM - Leaving Mercury (Dorm B) in route to Area 3 U3fi Injection Well.

10:10 AM - Arrived @ CAU 91 - U3fi Injection Well

20 Performed a Tailgate Safety Briefing w/ NNSA & NDEP

- Discussed slips/trips and falls because of uneven desert terrain

- Be aware of biological hazards (i.e. snakes, scorpions, etc.)

- Drink plenty of water to prevent dehydration

- Mentioned in case a fire started due to vehicle and dry brush, a

25 fire extinguisher was available in NSTec govt. vehicles

Performed inspection of the U3fi site. The UR signs and chain link fencing were in excellent condition. No vegetation was inside the fenced area or around the concrete monument pad. No evidence

SIGNATURE

DATE

9/23/08

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

of animal burrowing. The site was in excellent condition with no issues. Photo documentation was taken.

10:25 AM Leaving CAU 91 in route to U3ax/bl site.

10:32 AM Arrived @ CAU 110 U3ax/bl site. We met Greg Doyle
at the site, went through a brief tailgate with Greg and
accessed the site to perform our inspection. The vegetation
on the cover appeared to be growing at a mature rate. Small
animal burrows were noticed, but nothing that warranted
a follow-up action with our ecological services group. The
subsidence repair areas on the east side of the landfill were
inspected to find the repairs ~~repairs~~ were intact and well-
maintained. The survey markers appeared to be in good
condition. A few small cracks were noticed, but were
determined not to be significant enough to warrant
a follow-up action. We'll keep an eye on those areas
during the next quarterly inspection in Dec. 2008. Overall
site conditions were good. Photos were taken of the
exterior and interior of the site. UR signs/fencing were great.

11:10 AM Leaving CAU 110 in route to Area 6 Decon Pond. We left
Greg Doyle and Tom Thiele. Tom departed from the group to
visit another ER project.

11:30 AM Arrived @ CAU 92 Decon Pond site. We did not access the
site, but performed our inspection by driving around the ~~open~~
chain link fenced area. On the east side of the fence, we
noticed a few wave barriers that contained open gaps. Photos
were taken to document the need for repairs. The UR signs, radars,
and fencing were in great condition. Vegetation was noticed
on the northeast perimeter of the cover. Also, dead vegetation

was noticed on the north edge of the cover that affected by herbicide application. There were no apparent signs of animal burrowing. Photos were taken of the exterior of the site. ER personnel will return later w/ an RCT as a BMP to retrieve photos inside the Decon Pond. NNSA and NDEP were interested why access was not allowed into the Decon Pond for this inspection. It was explained that even though the site is a URMA, it is not a radcon requirement to deny access without an RCT, but an ER internal policy that will be implemented due to recent radiological work control incidences. An e-mail providing further clarification will be provided to NNSA and NDEP.

11:50 AM Leaving CAU 92 in route to Area 23 Haz. Waste Trenches

12:20 PM Arrived @ CAU 112 Hazardous Waste Trenches

Performed a drive around inspection to find no evidence of vegetation on the cover. The UR signage, aboveground monuments, and fencing are in excellent condition. There were no photos taken at this site as they are not required. There are no issues or follow-up actions required at this site.

12:28 PM Leaving CAU 112 for lunch. End of RCRA Inspections

Note: It was mentioned that all UR signs will be replaced and upgraded to current guidance standards as a BMP.

Glenn Rickman

Glenn Rickman

9/23/08

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C.

PHOTOGRAPHS

THIS PAGE INTENTIONALLY LEFT BLANK

PHOTOGRAPH LOG

CORRECTIVE ACTION UNIT	DATE	PHOTOGRAPH NUMBER	DESCRIPTION
91	03/26/2008	1	Inside Facing North
		2	Inside Facing East
		3	Inside Facing South
		4	Inside Facing West
		5	Surface Monument Facing North
		6	Surface Monitoring Well Facing South
		7	Outside Facing North
		8	Outside Facing East
		9	Outside Facing South
		10	Outside Facing West
	09/23/2008	11	Inside Facing North
		12	Inside Facing East
		13	Inside Facing South
		14	Inside Facing West
		15	Surface Monument Facing North
		16	Surface Monitoring Well Facing South
		17	Outside Facing North
		18	Outside Facing East
		19	Outside Facing South
		20	Outside Facing West
92	03/26/2008	21	Inside Facing North
		22	Inside Facing East
		23	Inside Facing South
		24	Inside Facing West
		25	Outside Facing North
		26	Outside Facing East
		27	Outside Facing South
		28	Outside Facing West
	06/17/2008	29	Inside Facing North
		30	Inside Facing East
		31	Inside Facing South

PHOTOGRAPH LOG, CONTINUED

CORRECTIVE ACTION UNIT	DATE	PHOTOGRAPH NUMBER	DESCRIPTION
		32	Inside Facing West
		33	Outside Facing North
		34	Outside Facing East
		35	Outside Facing South
		36	Outside Facing West
	09/23/2008	37	Inside Facing North
		38	Inside Facing East
		39	Inside Facing South
		40	Inside Facing West
		41	Outside Facing North
		42	Outside Facing East
		43	Outside Facing South
		44	Outside Facing West
110	09/23/2008	45	Inside Facing North
		46	Inside Facing East
		47	Inside Facing South
		48	Inside Facing West
		49	Outside Facing North
		50	Outside Facing East
		51	Outside Facing South
		52	Outside Facing West

Photograph 1: CAU 91, Inside Facing North, 03/26/2008

Photograph 2: CAU 91, Inside Facing East, 03/26/2008

Photograph 3: CAU 91, Inside Facing South, 03/26/2008

Photograph 4: CAU 91, Inside Facing West, 03/26/2008

Photograph 5: CAU 91, Surface Monument Facing North, 03/26/2008

Photograph 6: CAU 91, Surface Monitoring Well Facing South, 03/26/2008

Photograph 7: CAU 91, Outside Facing North, 03/26/2008

Photograph 8: CAU 91, Outside Facing East, 03/26/2008

Photograph 9: CAU 91, Outside Facing South, 03/26/2008

Photograph 10: CAU 91, Outside Facing West, 03/26/2008

Photograph 11: CAU 91, Inside Facing North, 09/23/2008

Photograph 12: CAU 91, Inside Facing East, 09/23/2008

Photograph 13: CAU 91, Inside Facing South, 09/23/2008

Photograph 14: CAU 91, Inside Facing West, 09/23/2008

Photograph 15: CAU 91, Surface Monument Facing North, 09/23/2008

Photograph 16: CAU 91, Surface Monitoring Well Facing South, 09/23/2008

Photograph 17: CAU 91, Outside Facing North, 09/23/2008

Photograph 18: CAU 91, Outside Facing East, 09/23/2008

Photograph 19: CAU 91, Outside Facing South, 09/23/2008

Photograph 20: CAU 91, Outside Facing West, 09/23/2008

Photograph 21: CAU 92, Inside Facing North, 03/26/2008

Photograph 22: CAU 92, Inside Facing East, 03/26/2008

Photograph 23: CAU 92, Inside Facing South, 03/26/2008

Photograph 24: CAU 92, Inside Facing West, 03/26/2008

Photograph 25: CAU 92, Outside Facing North, 03/26/2008

Photograph 26: CAU 92, Outside Facing East, 03/26/2008

Photograph 27: CAU 92, Outside Facing South, 03/26/2008

Photograph 28: CAU 92, Outside Facing West, 03/26/2008

Photograph 29: CAU 92, Inside Facing North, 06/17/2008

Photograph 30: CAU 92, Inside Facing East, 06/17/2008

Photograph 31: CAU 92, Inside Facing South, 06/17/2008

Photograph 32: CAU 92, Inside Facing West, 06/17/2008

Photograph 33: CAU 92, Outside Facing North, 06/17/2008

Photograph 34: CAU 92, Outside Facing East, 06/17/2008

Photograph 35: CAU 92, Outside Facing South, 06/17/2008

Photograph 36: CAU 92, Outside Facing West, 06/17/2008

Photograph 37: CAU 92, Inside Facing North, 09/23/2008

Photograph 38: CAU 92, Inside Facing East, 09/23/2008

Photograph 39: CAU 92, Inside Facing South, 09/23/2008

Photograph 40: CAU 92, Inside Facing West, 09/23/2008

Photograph 41: CAU 92, Outside Facing North, 09/23/2008

Photograph 42: CAU 92, Outside Facing East, 09/23/2008

Photograph 43: CAU 92, Outside Facing South, 09/23/2008

Photograph 44: CAU 92, Outside Facing West, 09/23/2008

Photograph 45: CAU 110, Inside Facing North, 09/23/2008

Photograph 46: CAU 110, Inside Facing East, 09/23/2008

Photograph 47: CAU 110, Inside Facing South, 09/23/2008

Photograph 48: CAU 110, Inside Facing West, 09/23/2008

Photograph 49: CAU 110, Outside Facing North, 09/23/2008

Photograph 50: CAU 110, Outside Facing East, 09/23/2008

Photograph 51: CAU 110, Outside Facing South, 09/23/2008

Photograph 52: CAU 110, Outside Facing West, 09/23/2008

LIBRARY DISTRIBUTION LIST

THIS PAGE INTENTIONALLY LEFT BLANK

LIBRARY DISTRIBUTION LIST

U.S. Department of Energy National Nuclear Security Administration Nevada Site Office Technical Library P.O. Box 98518, M/S 505 Las Vegas, NV 89193-8518	1 (Uncontrolled, electronic copy)
U.S. Department of Energy Office of Scientific and Technical Information P.O. Box 62 Oak Ridge, TN 37831-0062	1 (Uncontrolled, electronic copy)
Southern Nevada Public Reading Facility c/o Nuclear Testing Archive P.O. Box 98521, M/S 400 Las Vegas, NV 89193-8521	2 (Uncontrolled, electronic copies)
Manager, Northern Nevada FFACO Public Reading Facility c/o Nevada State Library & Archives Carson City, NV 89701-4285	1 (Uncontrolled, electronic copy)

THIS PAGE INTENTIONALLY LEFT BLANK