Post-Closure Inspection Report for Corrective Action Unit 424: Area 3 Landfill Complexes Tonopah Test Range, Nevada Calendar Year 2001

Controlled Copy No.: UNCONTROLLED

Revision: 0

January 2002
DISCLAIMER STATEMENT

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 or any agency thereof or its contractors or subcontractors.

AVAILABILITY STATEMENT

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.fedworld.gov
Online ordering: http://www.ntis.gov/ordering.htm

Available electronically at http://www.doe.gov/bridge

Available for a processing fee to 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 INSPECTION REPORT FOR
CORRECTIVE ACTION UNIT 424:
AREA 3 LANDFILL COMPLEXES
TONOPAH TEST RANGE, NEVADA
CALENDAR YEAR 2001

Prepared for
U. S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
Work Performed Under Contract No.
DE-AC08-96NV11718

Controlled Copy No.:_____
Revision: 0
January 2002
POST-CLOSURE INSPECTION REPORT FOR
CORRECTIVE ACTION UNIT 424:
AREA 3 LANDFILL COMPLEXES
TONOPAH TEST RANGE, NEVADA
CALENDAR YEAR 2001

Approved by: Janet L. Appenzeller-Wing, Project Manager
Industrial Sites Project
Date: 1/28/02

Approved by: Runore C. Wycoff, Division-Director
Date: 1-28-02
**TABLE OF CONTENTS**

1.0 INTRODUCTION .......................................................... 1

2.0 INSPECTION RESULTS .................................................. 1
   2.1 May 16, 2001 Inspection ........................................... 4
   2.2 November 6, 2001 Inspection ...................................... 5

3.0 RECOMMENDATIONS AND CONCLUSIONS ............................. 6

**FIGURES**

FIGURE 1 - AREA 3 LANDFILL COMPLEXES CAU 424 LOCATION MAP ........ 2
FIGURE 2 - LOCATIONS OF THE EIGHT AREA 3 LANDFILL SITES .......... 3

**ATTACHMENTS**

ATTACHMENT A - INSPECTION CHECKLISTS

ATTACHMENT B - FIELD NOTES

ATTACHMENT C - PHOTOGRAPH LOG AND PHOTOGRAPHS

**DISTRIBUTION LIST**
1.0 INTRODUCTION

Corrective Action Unit (CAU) 424, the Area 3 Landfill Complexes at Tonopah Test Range, consists of eight Corrective Action Sites (CASs), seven of which are landfill cells that were closed previously by capping. (The eighth CAS, A3-7, was not used as a landfill site and was closed without taking any corrective action.) Figure 1 shows the general location of the landfill cells. Figure 2 shows in more detail the location of the eight landfill cells. CAU 424 closure activities included removing small volumes of soil containing petroleum hydrocarbons, repairing cell covers that were cracked or had subsided, and installing above-grade and at-grade monuments marking the corners of the landfill cells. Post-closure monitoring requirements for CAU 424 are detailed in Section 5.0, Post-Closure Inspection Plan, contained in the Closure Report for Corrective Action Unit 424: Area 3 Landfill Complexes, Tonopah Test Range, Nevada, report number DOE/NV--283, July 1999. The Closure Report (CR) was approved by the Nevada Division of Environmental Protection (NDEP) in July 1999. The CR includes compaction and permeability results of soils that cap the seven landfill cells.

As stated in Section 5.0 of the NDEP-approved CR, post-closure monitoring at CAU 424 consists of the following:

- Site inspections conducted twice a year to evaluate the condition of the unit.
- Verification that landfill markers and warning signs are in-place, intact, and readable.
- Notice of any subsidence, erosion, unauthorized use, or deficiencies that may compromise the integrity of the landfill covers.
- Remedy of any deficiencies within 90 days of discovery.
- Preparation and submittal of an annual report.

Site inspections were conducted on May 16, 2001, and November 6, 2001. The inspections were performed after the NDEP approval of the CR.

This report includes copies of the inspection checklist, photographs, recommendations, and conclusions. The Post-Closure Inspection Checklists are found in Attachment A, a copy of the field notes is found in Attachment B, and copies of the inspection photographs are found in Attachment C.

2.0 INSPECTION RESULTS

The following observations were made during the 2001 site inspections of the seven individual landfill units (CASs) that comprise CAU 424.
FIGURE 1
AREA 3 LANDFILL COMPLEXES
CAU 424 LOCATION MAP
FIGURE 2
LOCATIONS OF THE EIGHT AREA 3 LANDFILL SITES
2.1 May 16, 2001 Inspection

The first inspection of CAU 424 was conducted on May 16, 2000. None of the seven landfill units were fenced at closure and are accessible to traffic and wildlife.

**Landfill A3-1 (CAS 03-08-001-A301):** Landfill A3-1 is located at the north end of the CAU and is the largest of the landfill cells. The seven above-grade concrete monuments that demarcate the landfill cell and the cover were examined. All monuments, attached signs, and survey pins capping the monuments were legible and in excellent condition. There was no evidence of cover subsidence, cracking, erosion, or animal burrows. Vegetation was present on the cover, but sparse compared to surrounding undisturbed areas.

**Landfill A3-2 (CAS 03-08-002-A302):** Landfill A3-2 is located due south of Landfill A3-1. Four above-grade monuments and the landfill cover were examined. All monuments, attached signs, and survey pins capping the monuments were legible and in excellent condition. There was no evidence of subsidence, cracking, or erosion of the landfill cover. No animal burrows were present on the cover or around the base of the monuments. Vegetation was present and healthy but sparse compared to the surrounding undisturbed area. The cover and monuments were in overall excellent condition.

**Landfill A3-3 (CAS 03-08-002-A303):** Landfill A3-3 straddles the western fence line of the Sandia National Laboratories Area 3 Compound, with parts of the landfill outside the fence and parts inside the fence. Three above-grade monuments marking the western edge of the landfill cell located outside the fence were examined. The three above-grade monuments, attached signs, and brass survey pins were legible and in excellent condition. Three at-grade brass marker pins demarcating the eastern edge of the landfill (installed during closure activities) were located just inside the Area 3 fence line. All were easily located, clearly visible, and legible. The area outside the fence was covered by sparse vegetation. The area inside the fence is heavily trafficked and bare of vegetation.

A small third waste cell (approximately 3 by 3 meters [10 by 10 feet]), located immediately east of the dirt access road to the Bechtel Nevada Field Office (Building 03-78), was inspected. The cell is in a heavily trafficked area and the three at-grade brass makers, placed during site closure, were not located. As was the case for the 2000 site inspection, road grading has covered these pins. The covers over each of the three cells were in excellent shape with no signs of cracking, subsidence, or erosion.

**Landfill A3-4 (CAS 03-08-002-A304):** Landfill A3-4 is located just south of Dykes Drive at the south end of the CAU. Five above-grade monuments and one at-grade brass marker pin were located. All monuments, the marker, attached signs, and survey pins were legible and in good condition. The cover was in excellent shape with no signs of cracking, subsidence, or erosion. Vegetation is sparse but well established on the cover.

**Landfill A3-5 (CAS 03-08-002-A305):** Landfill A3-5 is located west of Moody Avenue inside a fenced area south of the Air Force First-Aid Station. All four above-grade monuments with attached warning signs and brass survey pins were located. All monuments, attached signs, and
survey pins were legible and in excellent condition. The area was vegetated with Russian Thistle and sparse grasses. The cover was in excellent condition with no evidence of subsidence, cracking, or erosion.

**Landfill A3-6 (CAS 03-08-002-A306):** Landfill A3-6 is located immediately west of and outside the fence line of the Area 3 Compound. All four above-grade monuments with attached warning signs and brass survey pins were located. All monuments, signs, and pins were in excellent condition. The area is sparsely vegetated with native species. No evidence of cover subsidence or erosion was observed. The overall condition of the cover was excellent.

**Landfill A3-8 (CAS 03-08-002-A308):** Landfill A3-8 is located southwest of the Area 3 Compound in the area of storage box cars (see photographs 11 and 19). This unit was closed by placing four at-grade brass marker pins at the corners of the unit. The southwest at-grade marker was located and was in excellent condition. The inspection was unable to locate the other three markers due to regrading of the dirt access road running through the area. The markers have been buried with soil from the regrading work. The area is not vegetated due to heavy traffic. There was no evidence of subsidence or erosion to the cover. The overall condition of the landfill cover is excellent.

**2.2 November 6, 2001 Inspection**

The second inspection of CUA 424 was conducted on November 6, 2001.

**Landfill A3-1 (CAS 03-08-001-A301):** All seven above-grade monuments were located. All monuments, attached warning signs, and stamped brass survey pins were in excellent condition. Minor animal burrows were present at the base of five monuments. Vegetation on the cover is sparse compared to surrounding undisturbed areas, but appears healthy and well established. No evidence of subsidence, cracking, or erosion of the landfill cover was observed. The overall condition of the landfill cover is excellent.

**Landfill A3-2 (CAS 03-08-002-A302):** All four above-grade monuments were located. All monuments, attached warning signs, and stamped brass survey pins were in excellent condition. Sparse vegetation is present on the cover. No evidence of cover subsidence, cracking, or erosion was observed. The overall condition of the cover is excellent.

**Landfill A3-3 (CAS 03-08-002-A303):** All three above-grade monuments and three at-grade brass marker pins marking the west cells of the landfill were located. All monuments, marker pins, attached warning signs, and stamped brass survey pins were in excellent condition. Vegetation outside the Area 3 fence appeared healthy and well established, while the area inside the fence is not vegetated due to traffic. Three at-grade brass marker pins placed to mark the perimeter of a small landfill cell located directly east of the area access road, were not located. These markers have been covered with soil from recent road maintenance activities. The overall condition of the landfill cover is excellent.
Landfill A3-4 (CAS 03-08-002-A304): All five above-grade monuments were located and inspected. The one at-grade brass marker pin was not located due to grading activity; it has been covered with soil. All monuments, attached warning signs, and survey pins were in excellent condition. Vegetation is sparse compared to adjacent undisturbed areas, but healthy and well established. No evidence of cover subsidence, cracking, or erosion was observed. The overall condition of Landfill A3-4 cover is excellent.

Landfill A3-5 (CAS 03-08-002-A305): All four above-grade monuments were located. All monuments, attached warning signs, and survey pins were in excellent condition. The cover area is vegetated by Russian Thistle. No evidence of cover subsidence, cracking, or erosion was observed. The overall condition of the landfill cover is excellent.

Landfill A3-6 (CAS 03-08-002-A306): All four above-grade monuments were located. All monuments, attached warning signs, and survey pins were in excellent condition. Vegetation on the landfill is healthy and well established. No signs of cover subsidence, cracking, or erosion were observed. The overall condition of the landfill cover is excellent.

Landfill A3-8 (CAS 03-08-002-A308): One of four at-grade brass marking pins was located at the southeast corner of the landfill. The three remaining at-grade marker pins were not visually located. They are in an area of high traffic use and have been covered with soil from road maintenance activities. The overall condition of the landfill cover is excellent with no evidence of subsidence, cracking, or erosion.

3.0 RECOMMENDATIONS AND CONCLUSIONS

The condition of the seven landfill units is excellent. All above-grade monuments were in excellent condition. The surface monuments that were located (three at A3-3 and one at A3-8) were in excellent condition. All warning signs and survey pins are legible and in good condition. Run-off is being properly diverted away from the landfill units and there is no evidence of drainage or erosion to any of the landfill units. The at-grade surface monuments that were not located (three at A3-3, one at A3-4, and three at A3-8) due to traffic and road maintenance work will be located during the 2002 site inspections. These monuments will be located by a survey crew from the site as-builts presented in the approved Closure Report (DOE/NV–283, July 1999) and re-installed as necessary. No modifications or repairs to the landfill cell covers, or changes in the frequency of site inspections, are recommended at this time.
ATTACHMENT A

INSPECTION CHECKLISTS
**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, 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 35 mm photographs (or equivalent) is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photo log entry will be made for each photograph taken.

5. This unit will be inspected biannually 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 photo log attached, and recommendations and conclusions.

---

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

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Site as-built plans and site base map reviewed.

2. Previous inspection reports reviewed.
   a. Were anomalies or trends detected on previous inspections?
   b. Was maintenance performed?

3. Site maintenance and repair records reviewed.
   a. Has site repair resulted in a change from as-built conditions?
   b. Are revised as-builts available that reflect repair changes?

**C. SITE INSPECTION (To be completed during inspection)**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Adjacent off-site features within watershed areas.
   a. Have there been any changes in use of adjacent area?
   b. Are there any new roads or trails?
   c. Has there been a change in the position of nearby washes?
   d. Has there been lateral excursion or erosion/deposition of nearby washes?
   e. Are there new drainage channels?
   f. Change in surrounding vegetation?

2. Security fence, signs.
   a. Displacement of fences, site markers, boundary markers, or monuments?
   b. Have any signs been damaged or removed?
      (Number of signs replaced: 8)
   c. Were gates locked?

---
CAU 424: AREA 3 LANDFILL COMPLEX, POST-CLOSURE INSPECTION CHECKLIST

3. Waste Unit cover.
   a. Is there evidence of settling? [YES] [NO] [EXPLANATION:]
   b. Is there cracking? [YES] [NO]
   c. Is there evidence of erosion around the cap (wind or water)? [YES] [NO]
   d. Is there evidence of animal burrowing? [YES] [NO] (minor burrowing at 12-24)
   e. Have the site markers been disturbed by man or natural processes? [YES] [NO]
   f. Is the vegetation on the cover? [YES] [NO] (present on all except in high traffic areas)
   g. Do natural processes threaten to integrity of any cover or site marker? [YES] [NO]
   h. Other? [YES] [NO]

4. Photo Documentation
   a. Has a photo log been prepared? [YES] [NO]
   b. Number of photos exposed (20)

D. FIELD CONCLUSIONS

1. Is there an imminent hazard to the integrity of the unit? (Immediate report required) [YES] [NO]
   Person/Agency to whom report made:

2. Are more frequent inspections required? [YES] [NO]

3. Are existing maintenance/repair actions satisfactory? [YES] [NO] (N/A)

4. Is other maintenance/repair necessary? [YES] [NO]

5. Is current status/condition of vegetative cover satisfactory? [YES] [NO]

6. Rationale for field conclusions:
   All monuments and signs in excellent condition.
   No evidence of subsidence at any of the landfill cells.
   Healthy vegetation present in areas where traffic is light.

E. CERTIFICATION

I have conducted an inspection of the Area 3 Landfill Complex, CAU 424, at the TTR in accordance with the Post-Closure Inspection Plan (see Closure Report) as recorded on this checklist, attached sheets, field notes, photo logs, and photographs.

Chief Inspector's Signature: [Signature]
Printed Name: [Brad Jackson]
Title: Task Manager
Date: 16 May 2001
CAU 424: AREA 3 LANDFILL COMPLEX, POST-CLOSURE INSPECTION CHECKLIST

**Date of Last Inspection:** 16 May 2001

**Responsible Agency:** BN-ER, NRES/NE

**Inspection Date:** 6 November 2001

**Inspector (name, title, organization):** Kevin Campbell, Technical Lead, BN-ER

**Assistant Inspector (name, title, organization):** N/A

### 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, 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 35 mm photographs (or equivalent) is required. In addition, all anomalous features or new features (such as changes in adjacent area land use) are to be photographed. A photo log entry will be made for each photograph taken.

5. This unit will be inspected biannually 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 photo log attached, and recommendations and conclusions.

### B. PREPARATION

(To be completed prior to site visit)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td></td>
</tr>
</tbody>
</table>

1. Previous inspection reports reviewed.

2. Site as-built plans and site base map reviewed.

3. Site maintenance and repair records reviewed.

4. Adjacent off-site features within watershed areas.

5. Security fence, signs.

### C. SITE INSPECTION

(To be completed during inspection)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td></td>
</tr>
</tbody>
</table>

1. Previous inspection reports reviewed.

   a. Were anomalies or trends detected on previous inspections?

   b. Was maintenance performed?

3. Site maintenance and repair records reviewed.

   a. Has site repair resulted in a change from as-built conditions?

   b. Are revised as-builts available that reflect repair changes?

4. Adjacent off-site features within watershed areas.

   a. Have there been any changes in use of adjacent area?

   b. Are there any new roads or trails?

   c. Has there been a change in the position of nearby washes?

   d. Has there been lateral excursion or erosion/deposition of nearby washes?

   e. Are there new drainage channels?

   f. Change in surrounding vegetation?

2. Security fence, signs.

   a. Displacement of fences, site markers, boundary markers, or monuments?

   b. Have any signs been damaged or removed? (Number of signs replaced: 0)

   c. Were gates locked?
CAU 424: AREA 3 LANDFILL COMPLEX, POST-CLOSURE INSPECTION CHECKLIST

3. Waste Unit cover:
   a. Is there evidence of settling?  
      YES  NO  EXPLANATION
   b. Is there cracking?
   c. Is there evidence of erosion around the cap (wind or water)?
   d. Is there evidence of animal burrowing?
   e. Have the site markers been disturbed by man or natural processes?
   f. Is the vegetation on the cover?
   g. Do natural processes threaten to integrity of any cover or site marker?
   h. Other?

4. Photo Documentation
   a. Has a photo log been prepared?
   b. Number of photos exposed (10)

D. FIELD CONCLUSIONS

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

Person/Agency to whom report made:

2. Are more frequent inspections required?

3. Are existing maintenance/repair actions satisfactory?

4. Is other maintenance/repair necessary?

5. Is current status/condition of vegetative cover satisfactory?

6. Rationale for field conclusions:
   a. Signs and above grade monuments in excellent condition.
   b. Could not locate at grade markers/pins for cells A3-4 NE corner, A3-3 S marker.
   c. Small area to the east of access road, and A3-8 S pins SE, NE, NW corners may need to have survey relocate corners and place former markers detectable by metal detectors in near future.

E. CERTIFICATION

I have conducted an inspection of the Area 3 Landfill Complex, CAU 424, at the TTR in accordance with the Post-Closure Inspection Plan (see Closure Report) as recorded on this checklist, attached sheets, field notes, photo logs, and photographs.

<table>
<thead>
<tr>
<th>Chief Inspector's Signature:</th>
<th>Printed Name:</th>
<th>Title:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campbell</td>
<td>Kevin Campbell</td>
<td>Technical Lead BN ER</td>
<td>6 November 2001</td>
</tr>
</tbody>
</table>
ATTACHMENT B

FIELD NOTES
1700 - CAV 423
- Inspect site conditions and existing machinery & signs.
- The site was in good condition with no signs of erosion, or ground disturbance. All site markings (signs and monuments) were present and undisturbed.

1730 CAV 424 (Area 3 Landfill Complex)
Landfill A3-3 - All mounds were present and were in good condition. No subsidence was observed and there were no signs of erosion or unauthorized land use or excavation in the landfill area. Due to recent grading and traffic, the location part of the small landfill area within the Area 3 compound could not be found. Few photos taken.

Landfill A3-6 - All four abutment mounds and adjacent signs were in good condition. There were no signs of subsidence or improper land use. No signs of erosion were present. The photos were taken.

Landfill A3-2 - All four abutment mounds and adjacent signs were in good condition. No erosion was observed and no improper land use or subsidence were present.
Work continued from Page____

CAV 424 - A-3 Landfill Complex   16 May 01

Landfill A3-1 All seven aboveground monuments were present and
were in good condition. No evidence of erosion,
subsidence, or improper land use were observed.
Three photos were taken

Landfill A3-5 All four aboveground monuments were present and
were in good condition. No evidence of erosion or improper land use were observed.
Two photos were taken

Landfill A3-8 None of the landfill markers pads were located
due to traffic and recent grading in the area.
The location of the two landfill cells were in
good condition and no signs of subsidence
or improper land use, were
Three photos were taken.

Landfill A3-4 Located four aboveground monuments and one
at one le monument. Monuments were in good
conditions and signs were legible. There were no
signs of subsidence, erosion, or improper land use.
Two photos were taken

Landfill A3-7 No monuments present at site. No signs of
erosion, subsidence, or improper land use were observed.
One photo was taken.
123 Arrive on site

Gates, fence, signs all in excellent condition

Crow vegetation healthy and more dense than outside fence.

Small burrows present at base of fence line, back-filled by hand.

Numerous small mammal burrows present inside fence, bunny fencing

is not buried as at other sites allowing animals access under fencing

No burrows present on top of raised area.

No evidence of erosion of cover, side slopes

Drainage swale north of cover in excellent condition - no apparent erosion

Reattached two signs with leg rings

1302 Depart site

1310 Rollercoaster Road Safe site (CAU407)

Barbed wire fencing in good condition. No bunny fencing present.

Postings "Underground Radioactive Material" still up in place

Vegetation inside fence very healthy.

Numerous small mammal burrows present inside fenced area and

on side slopes of cover.

No threat to integrity of cover

All signs in good shape

326 Depart site

35 A3-4 site (CAU423)

All 5 above-grade monuments in good condition

All attached signs in good condition

Vegetation mainly heliogor, some native species all healthy but sparse.

Many small mammal burrows present

Work continued to Page 23
A3-3 Veg. healthy
3 above grade monument in excellent condition
3 at grade monuments inside fence in excellent condition
All signs, marker, pin in excellent condition

A3-6 All 4 monuments and attached signs in excellent condition
No signs of erosion features
Veg. healthy

A3-2 4 monuments & signs in excellent condition
Healthy vegetation
No severe erosion features

A3-1 All 7 monuments & signs in excellent condition.
No evidence of subsidence causing a erosion
Veg. healthy but sparse

A3-5 4 monuments signs in excellent stripe
Vegetation mostly thick

A3-8 Could locate only 1 of 4 at grade monuments
High traffic area.

630 Depart site for LV.

Just fine.

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60605 Made in USA

SIGNATURE

[Signature]

DATE 11/6/01
ATTACHMENT C

PHOTOGRAPH LOG AND PHOTOGRAPHS
## PHOTOGRAPH LOG

<table>
<thead>
<tr>
<th>PHOTO NUMBER</th>
<th>DATE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>05/16/2001</td>
<td>View of Landfill A3-1 looking northeast from the southwest.</td>
</tr>
<tr>
<td>2</td>
<td>05/16/2001</td>
<td>View of Landfill A3-1 looking north from the south.</td>
</tr>
<tr>
<td>3</td>
<td>05/16/2001</td>
<td>View of Landfill A3-2 looking north from the south.</td>
</tr>
<tr>
<td>4</td>
<td>05/16/2001</td>
<td>View of Landfill A3-3 from outside Area 3 fence looking east.</td>
</tr>
<tr>
<td>5</td>
<td>05/16/2001</td>
<td>View of Landfill A3-3 from inside Area 3 fence looking north.</td>
</tr>
<tr>
<td>6</td>
<td>05/16/2001</td>
<td>View of Landfill A3-3 surface markers inside Area 3 fence.</td>
</tr>
<tr>
<td>7</td>
<td>05/16/2001</td>
<td>View of Landfill A3-3 cell on east side of dirt access road. Cell is located under machinery parked near car. Surface monuments mark cell.</td>
</tr>
<tr>
<td>8</td>
<td>05/16/2001</td>
<td>View of Landfill A3-4 looking south from northwest cell corner.</td>
</tr>
<tr>
<td>9</td>
<td>05/16/2001</td>
<td>View of Landfill A3-5 looking west from Moody Ave.</td>
</tr>
<tr>
<td>10</td>
<td>05/16/2001</td>
<td>View of Landfill A3-6 looking north from south.</td>
</tr>
<tr>
<td>11</td>
<td>05/16/2001</td>
<td>View of Landfill A3-8 looking north at boxcars. Surface monuments mark cell corners.</td>
</tr>
<tr>
<td>12</td>
<td>11/06/2001</td>
<td>View of Landfill A3-1 looking north from south.</td>
</tr>
<tr>
<td>13</td>
<td>11/06/2001</td>
<td>View of Landfill A3-3 looking north from south.</td>
</tr>
<tr>
<td>14</td>
<td>11/06/2001</td>
<td>View of Landfill A3-2 looking north from south.</td>
</tr>
<tr>
<td>15</td>
<td>11/06/2001</td>
<td>View of Landfill A3-3 looking north from outside Area 3 fence.</td>
</tr>
<tr>
<td>16</td>
<td>11/06/2001</td>
<td>View of Landfill A3-4 looking south.</td>
</tr>
<tr>
<td>17</td>
<td>11/06/2001</td>
<td>View of Landfill A3-5 looking south.</td>
</tr>
<tr>
<td>18</td>
<td>11/06/2001</td>
<td>View of Landfill A3-6 looking north.</td>
</tr>
<tr>
<td>19</td>
<td>11/06/2001</td>
<td>View of Landfill A3-8 looking north at boxcars. Surface monuments mark cell corners.</td>
</tr>
</tbody>
</table>
DISTRIBUTION LIST
DISTRIBUTION LIST

*Provide copy of initial distribution of Revision 0; remainder of list gets Revision 0 if approved without changes. The entire list receives Revision 1, if issued.

Nevada Department of Environmental Protection

Paul Liebendorfer
Bureau of Federal Facilities
Division of Environmental Protection
333 W. Nye Lane, Room 138
Carson City, NV 89706-0866

Supervisor, Las Vegas Office
Bureau of Federal Facilities
Division of Environmental Protection
555 E. Washington, Suite 4300
Las Vegas, NV 89010-1043

U.S. Department of Energy

Janet Appenzeller-Wing
Project Manager
Environmental Restoration Division
U.S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
P.O. Box 98518 M/S 505
Las Vegas, NV 89193-8518

Kevin Cabble
Environmental Restoration Division
U.S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
P.O. Box 98518 M/S 505
Las Vegas, NV 89193-8518

Sabrina Lawrence
Environmental Restoration Division
U.S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
P.O. Box 98518 M/S 505
Las Vegas, NV 89193-8518
DISTRIBUTION LIST (Continued)

U.S. Department of Energy (continued)

U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831-0062

U.S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
Public Reading Facility
P.O. Box 98521 M/S NLV040
Las Vegas, NV 89193-8521

U.S. Department of Energy
National Nuclear Security Administration
Nevada Operations Office
Technical Information Resource Center
P.O. Box 98521 M/S 505
Las Vegas, NV 89193-8521

Bechtel Nevada

Correspondence Control
Bechtel Nevada
P.O. Box 98521 M/S NLV008
Las Vegas, NV 89193-8521

Environmental Management Library
Bechtel Nevada
P.O. Box 98521 N/S NLV080
Las Vegas, NV 89193-8521

Kevin Campbell
Bechtel Nevada
P.O. Box 98521 M/S NTS306
Las Vegas, NV 89193-8521

Ann Heidema
Bechtel Nevada
P.O. Box 98521 M/S NLV022
Las Vegas, NV 89193-8521
## DISTRIBUTION LIST (Continued)

### Bechtel Nevada (continued)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Address</th>
<th>Location</th>
<th>Level of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ronald Jackson</td>
<td></td>
<td>Bechtel Nevada (continued)</td>
<td>P.O. Box 98521 M/S NTS306</td>
<td>1 (Uncontrolled)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Las Vegas, NV 89193-8521</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wayne Johnson</td>
<td></td>
<td>Bechtel Nevada (continued)</td>
<td>P.O. Box 98521 M/S NTS306</td>
<td>1 (Uncontrolled)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Las Vegas, NV 89193-8521</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steve Nacht</td>
<td></td>
<td>Bechtel Nevada (continued)</td>
<td>P.O. Box 98521 M/S NTS306</td>
<td>1 (Uncontrolled)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Las Vegas, NV 89193-8521</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### IT Corporation

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Address</th>
<th>Location</th>
<th>Level of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynn Kidman</td>
<td></td>
<td>IT Corporation (continued)</td>
<td>P.O. Box 93838 M/S 439</td>
<td>1 (Uncontrolled)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Las Vegas, NV 89193-8521</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garry Romano</td>
<td></td>
<td>IT FFACO Support Office (continued)</td>
<td>P.O. Box 93838 M/S 439</td>
<td>1 (Controlled)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IT Corporation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Las Vegas, NV 89193-8521</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### State Of Nevada

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Address</th>
<th>Location</th>
<th>Level of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td></td>
<td>Manager, Northern Nevada (continued)</td>
<td>Nevada State Library and Archives Federal Publications</td>
<td>1 (Controlled) &amp; 1 (Uncontrolled)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FFACO Public Reading Facility</td>
<td>100 North Stewart Street</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carson City, NV 89701-4285</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>