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National Nuclear Security Administration  
Nevada Site Office  
P.O. Box 98518  
Las Vegas, NV 89193-8518



FEB 5 2007

Tim Murphy, Chief  
Bureau of Federal Facilities  
Division of Environmental Protection  
1771 E. Flamingo Road, Suite 121-A  
Las Vegas, NV 89119

SUBMITTAL OF FINAL POST-CLOSURE INSPECTION LETTER REPORT FOR  
CORRECTIVE ACTION UNIT 91: AREA 3 U-3f INJECTION WELL, NEVADA TEST  
SITE, NEVADA, REVISION 0, JANUARY 2007

This letter serves as the post-closure monitoring letter report for the above Corrective Action Unit (CAU) for calendar year 2006.

CAU 91 is inspected every six months. The first inspection was conducted on March 23, 2006, and the second inspection was conducted on September 19, 2006. All access roads, fences, gates, and signs were in excellent condition. No settling, cracking, or erosion was observed on the cover, and the use restriction had been maintained. No issues were identified, and no corrective actions were needed.

The post-closure inspection checklists for CAU 91 are attached. Photographs and field notes taken during site inspections are maintained in the project files.

Please direct comments and questions to Sabine Curtis, of my staff, at (702) 295-0542.

*W* Wilhelm R. Wilborn,  
Acting Federal Project Director  
Environmental Restoration Project

ERD:2790.SC

Enclosure:  
As stated

## CAU 91: AREA 3 U-3f INJECTION WELL, POST-CLOSURE INSPECTION CHECKLIST

Inspection Date and Time: <u>3/23/06</u> <u>10:20 AM</u>	Reason for Inspection: <u>Semi-Annual</u>	
Date of Last Inspection: <del>12/12/05</del> <sup>BR</sup> <u>9/27/05</u>	Reason for Last Inspection: <u>Semi-Annual</u>	
Responsible Agency: Bechtel Nevada Environmental Restoration		
Address: Nevada Test Site, Mercury, Nevada		
Responsible Agency Official: Jeffrey L. Smith, Project Manager		
Chief Inspector: <u>Glenn Richardson</u>	Title: <u>Task Manager</u>	Organization: Environmental Restoration
Assistant Inspector: <u>Brian Konrad</u>	Title: <u>Deputy Field Ops Manager</u>	Organization: Environmental Restoration

## A. GENERAL INSTRUCTIONS

- 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.
- 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.
- 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.
- 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.
- 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 biannually 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
1. Has the Post-Closure Permit been reviewed?	✓		
2. Have the design basis documents been reviewed?	✓		
3. Have the site as-built plans and site base map been reviewed?	✓		
4. Have the previous inspection reports been reviewed?	✓		
a. Were anomalies or trends detected on previous inspections?		✓	
b. Was maintenance performed?		✓	
5. Have the site maintenance and repair records been reviewed?	✓		
a. Has site repair resulted in a change from as-built conditions?		✓	
b. Are revised as-built plans available that reflect repair changes?	✓		N/A

## C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

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

**CAU 91: AREA 3 U-3fi INJECTION WELL, POST-CLOSURE INSPECTION CHECKLIST**

D. SITE INSPECTION	YES	NO	EXPLANATION
<b>1. Adjacent off-site features:</b>			
a. Have there been any changes in the use of the adjacent area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Are there any new roads or trails?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Has there been any change in the position of nearby washes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Has there been lateral excursion or erosion/deposition of nearby washes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Are there new drainage channels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Has there been a change in the surrounding vegetation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>2. Access roads, fences, gates, and signs:</b>			
a. Is there a break in the fence?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Have any posts been damaged or their anchoring weakened?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Does the gate show evidence of tampering or damage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Was the gate locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Is there any evidence of human intrusion onto the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Is there any evidence of large animal intrusion onto the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g. Have any signs been damaged or removed? (Number of signs replaced: <u>0</u> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
h. Other?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>3. Monuments and other permanent features:</b>			
a. Have survey markers, boundary monuments, or monitoring stations been disturbed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Do natural processes threaten the integrity of any survey marker, boundary monument or monitoring station?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Is there excessive vegetation around the survey markers, boundary monuments, or monitoring stations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Other?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>4. Waste unit cover:</b>			
a. Is there evidence of settling?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Is there evidence of cracking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Is there evidence of erosion (wind or water)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Is there evidence of animal burrowing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Is there vegetation growing on the cover?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f. Other (including trash, debris, etc within fenced area)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

## CAU 91: AREA 3 U-3fi INJECTION WELL, POST-CLOSURE INSPECTION CHECKLIST

## 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
a. Have all photographs required by the photograph instructions been taken?	✓	☐	
b. Has a photograph log been prepared? (Number of photographs taken: <u>10</u> )	✓	☐	
c. Other?	☐	✓	

## E. FIELD CONCLUSIONS

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

☐	✓	
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Person/Agency to whom report was made:

2. Are more frequent inspections required?

☐	✓	
---	---	--

3. Are existing maintenance/repair actions satisfactory?

✓	☐	
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4. Is other maintenance/repair necessary?

☐	✓	
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5. Field conclusions/recommendations:

*The site is in excellent condition. Signage and fencing look good!! There is no change <sup>with</sup> the site conditions since the last inspection period.*

## 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:

*3/23/06*

Printed Name:

*Glenn Richardson*

Title:

*Task Manager*

## CAU 91: AREA 3 U-3fi INJECTION WELL, POST-CLOSURE INSPECTION CHECKLIST

Inspection Date and Time: 9/19/06 9:25 AM	Reason for Inspection: Semi-annual
Date of Last Inspection: 3-23-06	Reason for Last Inspection: Semi-annual
Responsible Agency: Bechtel Nevada Environmental Restoration	
Address: Nevada Test Site, Mercury, Nevada	
Responsible Agency Official: Jeffrey L. Smith, Project Manager	
Chief Inspector: Shaughn Burnison	Title: Field Tech Lead Organization: Environmental Restoration
Assistant Inspector: Mike Floyd	Title: Field Tech Lead Organization: Environmental Restoration

## A. GENERAL INSTRUCTIONS

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- 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.
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- 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 biannually 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
1. Has the Post-Closure Permit been reviewed?	X		
2. Have the design basis documents been reviewed?	X		
3. Have the site as-built plans and site base map been reviewed?	X		
4. Have the previous inspection reports been reviewed?	X		
a. Were anomalies or trends detected on previous inspections?		X	
b. Was maintenance performed?		X	
5. Have the site maintenance and repair records been reviewed?	X		
a. Has site repair resulted in a change from as-built conditions?		X	
b. Are revised as-built plans available that reflect repair changes?	X		

## C. SITE INSPECTION PREPARATION

Assemble the following, as needed, to conduct inspections:

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

**CAU 91: AREA 3 U-3fi INJECTION WELL, POST-CLOSURE INSPECTION CHECKLIST**

D. SITE INSPECTION	YES	NO	EXPLANATION
<b>1. Adjacent off-site features:</b>			
a. Have there been any changes in the use of the adjacent area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Are there any new roads or trails?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Has there been any change in the position of nearby washes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Has there been lateral excursion or erosion/deposition of nearby washes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Are there new drainage channels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Has there been a change in the surrounding vegetation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>2. Access roads, fences, gates, and signs:</b>			
a. Is there a break in the fence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Have any posts been damaged or their anchoring weakened?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Does the gate show evidence of tampering or damage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Was the gate locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Is there any evidence of human intrusion onto the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
f. Is there any evidence of large animal intrusion onto the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g. Have any signs been damaged or removed? (Number of signs replaced: 0)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None
h. Other?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>3. Monuments and other permanent features:</b>			
a. Have survey markers, boundary monuments, or monitoring stations been disturbed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Do natural processes threaten the integrity of any survey marker, boundary monument or monitoring station?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Is there excessive vegetation around the survey markers, boundary monuments, or monitoring stations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Other?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>4. Waste unit cover:</b>			
a. Is there evidence of settling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Is there evidence of cracking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Is there evidence of erosion (wind or water)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d. Is there evidence of animal burrowing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
e. Is there vegetation growing on the cover?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
g. Other (including trash, debris, etc within fenced area)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	None

## CAU 91: AREA 3 U-3fi INJECTION WELL, POST-CLOSURE INSPECTION CHECKLIST

## 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
a. Have all photographs required by the photograph instructions been taken?	X		
b. Has a photograph log been prepared? (Number of photographs taken: 10)	X		
c. Other?		X	

## E. FIELD CONCLUSIONS

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

	X	
--	---	--

Person/Agency to whom report was made:

2. Are more frequent inspections required?

	X	
--	---	--

3. Are existing maintenance/repair actions satisfactory?

X		
---	--	--

4. Is other maintenance/repair necessary?

	X	
--	---	--

5. Field conclusions/recommendations: This post-closure site needs no repairs or maintenance. All signs, fencing, and monuments were in good condition. The cover has no vegetation growing or cracking/erosion.

## 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: Shaughn A. Burnison

Date: 9/19/2006

Printed Name: SHAUGHN A. BURNISON

Title: FIELD SUPPORT TECH LEAD