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DOE/NV--1160-ADD



# Addendum to the Closure Report for Corrective Action Unit 214: Bunkers and Storage Areas Nevada Test Site, Nevada

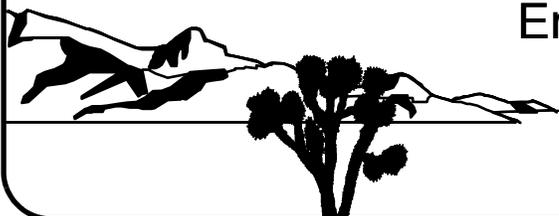
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**ADDENDUM TO THE CLOSURE REPORT FOR  
CORRECTIVE ACTION UNIT 214:  
BUNKERS AND STORAGE AREAS  
NEVADA TEST SITE, NEVADA**

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

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## **Addendum to the Closure Report for Removal of the Use Restriction**

This document constitutes an addendum to the September 2006, Closure Report for Corrective Action Unit 214: Bunkers and Storage Areas as described in the document *Recommendations and Justifications for Modifications for Use Restrictions Established under the U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office Federal Facility Agreement and Consent Order* (UR Modification document) dated February 2008. The UR Modification document was approved by NDEP on February 26, 2008. The approval of the UR Modification document constituted approval of each of the recommended UR modifications. In conformance with the UR Modification document, this addendum consists of:

- This cover page that refers the reader to the UR Modification document for additional information
- The cover and signature pages of the UR Modification document
- The NDEP approval letter
- The corresponding section of the UR Modification document

This addendum provides the documentation justifying the cancellation of the URs for:

- CAS 25-23-01, Contaminated Materials
- CAS 25-23-19, Radioactive Material Storage

These URs were established as part of *Federal Facility Agreement and Consent Order* (FFACO) corrective actions and were based on the presence of contaminants at concentrations greater than the action levels established at the time of the initial investigation (FFACO, 1996; as amended August 2006).

Since these URs were established, practices and procedures relating to the implementation of risk-based corrective actions (RBCA) have changed. Therefore, these URs were re-evaluated against the current RBCA criteria as defined in the *Industrial Sites Project Establishment of Final Action Levels* (NNSA/NSO, 2006c). This re-evaluation consisted of comparing the original data (used to define the need for the URs) to risk-based final action levels (FALs) developed using the current Industrial Sites RBCA process.

The re-evaluation resulted in a recommendation to remove these URs because contamination is not present at these sites above the risk-based FALs. Requirements for inspecting and maintaining these URs will be canceled, and the postings and signage at each site will be removed. Fencing and posting may be present at these sites that are unrelated to the FFACO URs such as for radiological control purposes as required by the *NV/YMP Radiological Control Manual* (NNSA/NSO, 2004f). This modification will not affect or modify any non-FFACO requirements for fencing, posting, or monitoring at these sites.

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Recommendations and Justifications for  
Modifications for Use Restrictions Established  
under the U.S. Department of Energy,  
National Nuclear Security Administration  
Nevada Site Office  
*Federal Facility Agreement and Consent Order*

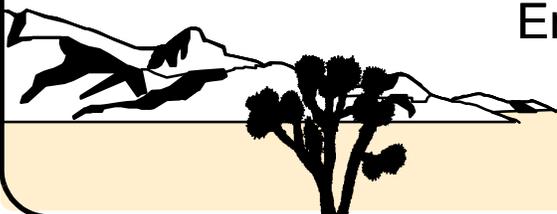
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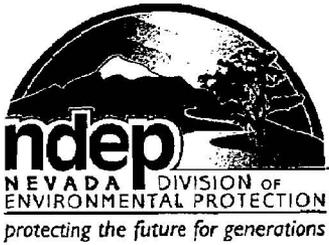
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# STATE OF NEVADA

Department of Conservation & Natural Resources  
DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor

Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

February 26, 2008

John B. Jones  
Acting Federal Project Director  
Environmental Restoration Project  
National Nuclear Security Administration  
Nevada Site Office  
P. O. Box 98518  
Las Vegas, NV 89193-8518

RE: Approval of Recommendations and Justifications for Modifications for Use Restrictions Established under the U.S. Department of Energy, National Nuclear Security Administration, Nevada Site Office *Federal Facility Agreement and Consent Order*

Dear Mr. Jones:

The Nevada Division of Environmental Protection, Bureau of Federal Facilities (NDEP) staff has received and reviewed the February 2008 final report for Recommendations and Justifications for Modifications for Use Restrictions Established under the U.S. Department of Energy, National Nuclear Security Administration, Nevada Site Office. The NDEP approves the requested changes to the previously agreed upon use restrictions for those Corrective Action Sites (CASs) as described in the report.

Address any questions regarding this matter to either Ted Zaferatos at (702) 486-2850, ext. 234, or me at (702) 486-2850, ext. 231.

Sincerely,

/s/ Tim Murphy

T.H. Murphy  
Chief  
Bureau of Federal Facilities

TZ

cc: E.F. DiSanza, WMP, NNSA/NSO  
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John Wong, Jeff MacDougall, Dennis Nicodemus, NDEP Las Vegas, NV



## **5.0 CAU 214, CAS 25-23-01 – Contaminated Materials, and CAS 25-23-19 – Radioactive Material Storage**

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### **5.1 CAS Descriptions**

Corrective Action Sites 25-23-01 and 25-23-19 are adjacent to each other and have similar historical backgrounds. They are located west of and adjacent to the Yucca Mountain Project - Sample Management Facility. The CASs were used for storage of radioactive equipment, hazardous waste, heavy equipment, reactor components, and drums and tanks of unspecified materials from 1982 to 1992. In 1995, the majority of materials were removed from the yards. Material remaining at the site as of 2004 included a large amount of steel equipment, one large furnace, large pieces of concrete and steel associated with the MX missile program, and several pallets of miscellaneous housekeeping debris (NNSA/NSO, 2004c). During closure activities, miscellaneous wood and metal debris – including metal framing, wooden pallets, and a dishwasher – were removed and disposed of as construction debris as a best management practice (BMP). Items deemed too large to remove were left in place (NNSA/NSO, 2006a).

### **5.2 Current Use Restriction Description**

The future use of any land affected by these URs is restricted from any DOE or Air Force activity that may alter or modify the containment control, as approved by the state and identified in the CAU CR or other CAU documentation, unless appropriate concurrence is obtained in advance. Site monitoring requirements for the UR include periodic visual inspections of UR postings and fencing. These are required annually for the first five years, followed by every five years, for a total of 30 years (NNSA/NSO, 2006a).

### **5.3 Basis for Current Use Restriction**

Samples were analyzed for TPH (DRO and GRO), total VOCs, total SVOCs, total RCRA metals, total beryllium, PCBs, isotopic U, isotopic Pu, Sr-90, total pesticides, Toxicity Characteristic Leaching Procedure (TCLP) pesticides, total herbicides, TCLP herbicides, total chromium, hexavalent chromium, and gamma spectroscopy. Except for TPH-DRO, all other COPCs in the material remaining (following remediation) were detected below their PALs, including VOCs and SVOCs. Concentrations of TPH-DRO exceeding the PAL of 100 mg/kg were detected in 39 samples (NNSA/NSO, 2004c).

Table 5-1 contains analytical results of all COCs at CASs 25-23-01 and 25-23-19 that are the basis for the current UR. The sample matrix for all samples is soil.

**Table 5-1**  
**Sample Results for COCs at CASs 25-23-01 and 25-23-19**  
**Used To Establish Current Use Restriction**  
(Page 1 of 2)

CAS	Sample Location	Sample ID	Depth (ft bgs)	TPH (DRO)
				PAL 100 mg/kg
25-23-01	D01	214D002	0 - 0.5	200 (H,Z)
	D02	214D041	0 - 0.5	220 (H,Z)
	D06	214D039	0 - 0.5	130 (H,Z)
	D07	214D009	0 - 0.5	3,500 (J)
	D10	214D013	0 - 0.5	2,800 (H,Z)
		214D077	3.5 - 4.0	200 (Z)
	D11	214D004	0 - 0.5	170 (H,Z)
	D12	214D006	0 - 0.5	300 (H,Z)
	D13	214D001	0 - 0.5	280 (H,Z)
	D14	214D012	0 - 0.5	110 (H,Z)
	D15	214D015	0 - 0.5	250 (H,Z)
	D16	214D040	0 - 0.5	290 (H,Z)
	D17	214D014	0 - 0.5	140 (H,Z)
	D19	214D003	0 - 0.5	180 (H,Z)
	D20	214D018	0 - 0.5	210 (H,Z)
	D21	214D005	0 - 0.5	140 (H,Z)
	D22	214D007	0 - 0.5	290 (H,Z)
	D23	214D010	0 - 0.5	290 (H,Z)
	D24	214D011	0 - 0.5	110 (H,Z)
	D25	214D043	0 - 0.5	190 (H,Z)
	D26	214D038	0 - 0.5	230 (H,Z)
	Y01	214Y001	0 - 0.5	460 (J)
		214Y002	0 - 0.5	520 (J)
	Y03	214Y005	0 - 0.5	110 (H,M)
	Y04	214Y009	0 - 0.5	240 (H,M)
		214Y010	0 - 0.5	240 (H,M)
	Y27	214Y034	0 - 0.5	140 (H,M)

**Table 5-1**  
**Sample Results for COCs at CASs 25-23-01 and 25-23-19**  
**Used To Establish Current Use Restriction**  
 (Page 2 of 2)

CAS	Sample Location	Sample ID	Depth (ft bgs)	TPH (DRO)
				PAL 100 mg/kg
25-23-01		214Y064	4.5	580 (H,M)
	Y29	214Y042	0 - 0.5	120 (H,M)
	Y31	214Y044	0 - 0.5	130 (H,M)
25-23-19	Y33	214Y046	0 - 0.5	100 (H,M)
	E01	214E010	0 - 0.5	190 (H,Z)
	E02	214E001	0 - 0.5	290 (H,Z)
	E03	214E003	0 - 0.5	150 (H,Z)
	E04	214E005	0 - 0.5	140 (H,Z)
	E08	214E002	0 - 0.5	270 (H,Z)
	E09	214E006	0 - 0.5	120 (H,Z)
	E10	214E004	0 - 0.5	140 (H)
	E12	214E011	0 - 0.5	180 (H,Z)

bgs = Below ground surface  
 DRO = Diesel-range organics  
 ft = Foot  
 ID = Identification

mg/kg = Milligrams per kilogram  
 PAL = Preliminary action level  
 TPH = Total petroleum hydrocarbons

H = The fuel pattern was in the heavier end of the retention time window for the analyte of interest.

J = Estimated value.

M = A pattern resembling motor fuel was detected.

Z = A significant fraction of the reported result did not resemble the patterns of the following petroleum hydrocarbon products: gasoline, JP-4, JP-8, diesel, mineral spirits, motor oil, Stoddard Solvent, and Bunker C.

#### **5.4 Basis for Use Restriction Modification**

The revised FALs associated with the TPH contamination were established based on the PALs of hazardous constituents of TPH diesel described in Section 2.2.2. Hazardous constituents of TPH diesel were not detected in any of the samples at concentrations greater than their respective PALs (NNSA/NSO, 2004c). Therefore, no contaminants are present at this site in concentrations exceeding the revised FALs, and all revised FALs were established at the PAL concentrations.

#### **5.5 Proposed Modification**

Remove the FFACO UR, associated fencing and postings, and inspection and maintenance requirements from these sites.

## **References**

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FFACO, see *Federal Facility Agreement and Consent Order*.

*Federal Facility Agreement and Consent Order*. 1996 (as amended). Agreed to by the State of Nevada; U.S. Department of Energy, Environmental Management; U.S. Department of Defense; and U.S. Department of Energy, Legacy Management.

NNSA/NSO, see U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office.

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2004c. *Corrective Action Decision Document for Corrective Action Unit 214: Bunkers and Storage Areas Nevada Test Site, Nevada*, Rev. 0, DOE/NV--956. August. Las Vegas, NV.

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2004f. *NV/YMP Radiological Control Manual*, DOE/NV--11718-079, Rev. 5. Prepared by Bechtel Nevada. Las Vegas, NV.

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U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office.  
2006c. *Industrial Sites Project Establishment of Final Action Levels*, Rev. 0, DOE/NV--1107. Las Vegas, NV.

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