RECORD OF TECHNICAL CHANGE

Technical Change No. DOE/NV-1246 ROTC-1

Page 1 of 1

Activity Name Industrial Sites

Date 12/11/2013

The following technical changes (including justification) are requested by:

Cathleen Birney
(Name)

N-I CAU Lead
(Title)

Description of Change:

Downgrade the FFACO UR at CAU 543, CAS 06-07-01, Decon Pad to an Administrative UR.

Justification:

Since this FFACO UR was established, practices and procedures relating to the implementation of risk-based corrective actions (RBCA) have changed. Therefore, this UR was re-evaluated against the current RBCA criteria as defined in the *Soils Risk-Based Corrective Action Evaluation Process*. This re-evaluation consisted of 1) assuming that the future land use for this CAS is Occasional Use (OU) and 2) calculating the revised FALs for Aroclor-1254 and Aroclor-1260 using the OU exposure scenario using the EPA Region 9 Regional Screening Levels for Chemical Contaminants at Superfund Sites Calculator and the latest input values. The chemical results are below the revised OU FAL. Therefore, FFACO UR is being downgraded to an Administrative UR. See attached "Recommendation to Downgrade Use Restriction" for detailed information.

The task time will be Unchanged by approximately 0 days.

Applicable Activity-Specific Document(s):

Closure Report for Corrective Action Unit 543: Liquid Disposal Units, Nevada Test Site, Nevada

Approved By: /s/ Tiffany A. Lantow, Date 12/11/2013
Activity Lead

/s/ Robert F. Boehlecke, Date 12/12/13
EM Operations Manager

/s/ Jeff MacDougall, Date 12/17/13
NDEP

Nevada
Environmental
Management
Operations Activity

DOE/NV--1509-Rev.1

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

Controlled Copy No.: _
Revision No.: 1

October 2013

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/s/ Joseph P. Johnston, N-I CO 10/08/2013

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**RECOMMENDATIONS AND JUSTIFICATIONS
FOR MODIFICATIONS TO DOWNGRADE
USE RESTRICTIONS ESTABLISHED
UNDER THE U.S. DEPARTMENT OF ENERGY,
NATIONAL NUCLEAR SECURITY ADMINISTRATION
NEVADA FIELD OFFICE
*FEDERAL FACILITY AGREEMENT
AND CONSENT ORDER***

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

Controlled Copy No.: _

Revision No.: 1

October 2013

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RECOMMENDATIONS AND JUSTIFICATIONS
FOR MODIFICATIONS TO DOWNGRADE USE RESTRICTIONS ESTABLISHED
UNDER THE U.S. DEPARTMENT OF ENERGY,
NATIONAL NUCLEAR SECURITY ADMINISTRATION NEVADA FIELD OFFICE
FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

Approved by: /s/ Tiffany A. Lantow

Tiffany A. Lantow
Industrial Sites Activity Lead

Date: 10/9/2013

Approved by: /s/ Robert F. Boehlecke

Robert F. Boehlecke
Environmental Management Operations Manager

Date: 10/9/2013

11.0 CAU 543, CAS 06-07-01 – Decon Pad

11.1 CAS Description

CAS 06-07-01, Decon Pad, is located at the Decontamination Facility in Area 6. The CAS consists of the effluent collection and distribution systems for Buildings 6-605, 6-606, and 6-607, which include two 1,000-gallon (gal) septic tanks, two ground-level sumps and associated piping, the concrete foundation of Building 6-605, floor drains, drain trenches, and cleanouts.

The Area 6 Decontamination Facility was built in 1971 and was designed to decontaminate vehicles, equipment, and clothing that had become radiologically contaminated during nuclear testing activities. Additionally, the facility managed mixed and radioactive waste generated from these decontamination processes. The Area 6 Decontamination Facility is located along the southwest edge of Yucca Lake in Area 6 of the NNSS. From 1971 through 1992, hazardous, radioactive, and sanitary wastes were generated within several buildings and originally discharged via process waste lines, septic systems, and sumps to the Area 6 Decontamination Pond. The Area 6 Decontamination Facility remained operational until 2001, and is currently inactive and abandoned. Additionally, a portion of the facility yard was used as a contaminated materials storage area where equipment and materials awaited decontamination. As a result, portions of the facility yard are posted as “Contamination Areas” (NNSA/NSO, 2004d).

During closure activities, the use-restricted area was fenced and posted, and a UR was implemented for PCBs and radioactivity. As best management practices (BMPs), two septic tanks, two sumps, and their contents were removed and disposed of as mixed waste; sediment from the Building 6-605 floor drain trenches was removed and disposed of as mixed waste; the floor drain trenches, a diversion box, and seven cleanouts were grouted to grade; and numerous containers and other surface debris were segregated according to waste stream and disposed of appropriately as either low-level waste or sanitary waste (NNSA/NSO, 2008).

11.2 Current UR Description

The future use of any land related to this CAU is restricted from any DOE or USAF activity that may alter or modify the containment control as approved by the State of Nevada and identified in the

CAU CR or other CAU documentation unless appropriate concurrence is obtained in advance. Nine UR warning signs were placed around the fence enclosing the UR. Annual inspections are required at CAS 06-07-01 and consist of visual inspections of the fencing and postings to verify that the fence is in good condition, that the postings are in place and readable, and that the UR is maintained (NNSA/NSO, 2008).

11.3 Basis for Current UR

Decision I environmental sampling activities included the collection of random and biased surface and subsurface soil samples surrounding the septic system components, the Building 6-605 concrete foundation, and the storage yard at this CAS. Samples were analyzed for VOCs, SVOCs, RCRA metals, beryllium, TPH-DRO and TPH-GRO, PCBs, gamma spectroscopy, isotopic U, isotopic Pu, Sr-90, and pesticides.

Only Aroclor 1254 and Aroclor 1260 contamination exceeded the PALs of 0.74 mg/kg (NNSA/NSO, 2005c). No VOCs, SVOCs, TPH-GRO, RCRA metals, or beryllium were detected above PALs. Although TPH-DRO results exceeded the action level of 100 mg/kg, the individual VOC and SVOC constituents of TPH-DRO did not exceed their respective FALs; therefore, TPH-DRO was not considered a COC. Although the pesticide dieldrin and the radionuclide Cs-137 exceeded their PALs, a Tier 2 evaluation was conducted, and dieldrin and Cs-137 did not exceed the site-specific FALs. Therefore, dieldrin and Cs-137 are not considered COCs.

Table 11-1 contains analytical results of all COCs at CAS 06-07-01 that are the basis for the current UR. The sample matrix for all samples is soil.

11.4 Basis for UR Modification

The assumption for this CAS is that the future land use is OU, which assumes non-continuous work activities at a site and that a worker will be exposed to site contaminants for up to 80 hr/yr for 5 years (NNSA/NSO, 2012b). Revised FALs were calculated for Aroclor 1254 and Aroclor 1260 using the OU exposure scenario using the EPA Region 9 RSLs for Chemical Contaminants at Superfund Sites Calculator (EPA, 2013b) and the latest input values (NNSA/NFO, 2013c). Table 11-2 presents the sample results that are the basis for the current UR and demonstrate that Aroclor 1254 and Aroclor 1260 results do not exceed the revised OU FALs.

Table 11-1
Sample Results for PCBs at CAS 06-07-01 Used To Establish Current UR

Sample Location	Sample ID	Sample Depth (ft bgs)	Aroclor 1254	Aroclor 1260
			PAL 0.74 mg/kg	PAL 0.74 mg/kg
A05	543A005	0.0 - 0.5	--	0.84
A10	543A010	0.0 - 0.5	--	0.75
A60	543A041	0.0 - 0.5	--	0.80
	543A042	0.0 - 0.5	--	0.80
A60A	534A058	0.0 - 0.5	--	1.7
A60B	534A059	0.0 - 0.5	0.86	2.6
A60C	543A060	0.0 - 0.5	0.86	5.6
A61	543A004	0.0 - 0.5	2.5	3.4
A61A	543A050	0.0 - 0.5	1.8	1.9
A61B	534A051	0.0 - 0.5	2.8	2.4
A62	543A045	0.0 - 0.5	--	6.7
A62C	543A054	0.0 - 0.5	--	3.1
	543A055	0.0 - 0.5	--	2.4
A63	543A046	0.0 - 0.5	--	5.7
A63B	543A048	0.0 - 0.5	--	3.2
A63C	543A049	0.0 - 0.5	--	1.0
A72	543A029	0.0 - 0.5	1.8 (J) ^a	4.6 (J) ^a
A72A	543A033	0.0 - 0.5	--	2.2 (J) ^a
	543A068	2.0 - 2.5	--	1.0
A72D	543A061	0.0 - 0.5	--	4.1
A73	543A030	N/A	--	0.85
A73A	543A057	3.3 - 4.0	--	1.2

^aQualifier added to laboratory data; record accepted. Surrogates diluted out.

J = Estimated value.

-- = No detects above original action levels.

11.5 Proposed Modification

Remove the FFACO UR and postings, and annual inspection requirements from this site; and change to an Administrative UR. These modifications will not affect or modify any non-FFACO requirements at this site.

Table 11-2
Revised OU FALs for PCBs at CAS 06-07-01

Sample Location	Sample ID	Sample Depth (ft bgs)	Aroclor 1254	Aroclor 1260
			OU FAL 93 mg/kg	OU FAL 93 mg/kg
A05	543A005	0.0 - 0.5	--	0.84
A10	543A010	0.0 - 0.5	--	0.75
A60	543A041	0.0 - 0.5	--	0.80
	543A042	0.0 - 0.5	--	0.80
A60A	534A058	0.0 - 0.5	--	1.7
A60B	534A059	0.0 - 0.5	0.86	2.6
A60C	543A060	0.0 - 0.5	0.86	5.6
A61	543A004	0.0 - 0.5	2.5	3.4
A61A	543A050	0.0 - 0.5	1.8	1.9
A61B	534A051	0.0 - 0.5	2.8	2.4
A62	543A045	0.0 - 0.5	--	6.7
A62C	543A054	0.0 - 0.5	--	3.1
	543A055	0.0 - 0.5	--	2.4
A63	543A046	0.0 - 0.5	--	5.7
A63B	543A048	0.0 - 0.5	--	3.2
A63C	543A049	0.0 - 0.5	--	1.0
A72	543A029	0.0 - 0.5	1.8 (J) ^a	4.6 (J) ^a
A72A	543A033	0.0 - 0.5	--	2.2 (J) ^a
	543A068	2.0 - 2.5	--	1.0
A72D	543A061	0.0 - 0.5	--	4.1
A73	543A030	N/A	--	0.85
A73A	543A057	3.3 - 4.0	--	1.2

^aQualifier added to laboratory data; record accepted. Surrogates diluted out.

J = Estimated value.

-- = No detects above original action levels.

References

EPA, see U.S. Environmental Protection Agency.

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

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

U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office. 2013c. Written communication. Subject: *Soils Risk-Based Corrective Action Evaluation Process*. Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004d. *Corrective Action Investigation Plan for Corrective Action Unit 543: Liquid Disposal Units, Nevada Test Site, Nevada*, Rev. 0, DOE/NV--968. Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2005c. *Corrective Action Decision Document for Corrective Action Unit 543: Liquid Disposal Units, Nevada Test Site, Nevada*, Rev. 0, DOE/NV--1082. Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2008. *Closure Report for Corrective Action Unit 543: Liquid Disposal Units, Nevada Test Site, Nevada*, Rev. 0, DOE/NV--1246. Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2012b. *Soils Risk-Based Corrective Action Evaluation Process*, Rev. 0, DOE/NV--1475. Las Vegas, NV.

U.S. Environmental Protection Agency. 2013b. *Regional Screening Levels for Chemical Contaminants at Superfund Sites (RSL Calculator)*. As accessed at http://epaprgs.ornl.gov/cgi-bin/chemicals/csl_search on 19 February. Prepared by EPA Office of Superfund and Oak Ridge National Laboratory.

Use Restriction Information

CAU Number/Description: CAU 543/Liquid Disposal Units
 Applicable CAS Number/Description: CAS 06-07-01/Decon Pad
 Contact (DOE AL/Activity): Tiffany Lantow/Industrial Sites - EM

FFACO Use Restriction Physical Description:

Surveyed Area (UTM, Zone 11, NAD 83, meters):

UR Points	Northing	Easting
N/A		

Depth:

Survey Source (GPS, GIS, etc):

Basis for FFACO UR(s):

Summary Statement: _____

Contaminants Table:

Maximum Concentration of Contaminants for CAU XXX CAS xx-xx-xx, Title			
Constituent	Maximum Concentration	Action Level	Units

Site Controls:

Use Restriction Information

Administrative Use Restriction Physical Description*:

Surveyed Area (UTM, Zone 11, NAD 83, meters):

UR Points	Northing	Easting
Southeast Corner	4,088,138.1	585,659.5
South 1	4,088,146.5	585,647.0
South 2	4,088,135.8	585,639.9
South 3	4,088,143.6	585,628.5
South 4	4,088,155.5	585,636.7
Southwest Corner	4,088,171.5	585,612.5
North Corner	4,088,197.7	585,629.7
Northeast Corner	4,088,165.2	585,678.0

Depth: 10 ft bgs

Survey Source (GPS, GIS, etc): GPS

*Coordinates for the Administrative Use Restriction exclude the area defined by the FFACO Use Restriction coordinates.

Basis for Administrative UR(s):

Summary Statement: This administrative UR is to protect site workers from inadvertent exposure to chemical contaminants above the Industrial Area (IA) FAL. As a best management practice, this administrative use restriction will prevent future (more intensive) use of the area. The analytical results and location of all samples collected are presented in the CR for CAU 543. Additional information is presented in *Recommendations and Justifications for Modifications to Downgrade Use Restrictions Established under the U.S. Department of Energy, National Nuclear Security Administration Nevada Field Office Federal Facility Agreement and Consent Order* document.

Contaminants Table:

Maximum Concentration of Contaminants for CAU 543 CAS 06-07-01, Decon Pad			
Constituent	Maximum Concentration	Action Level	Units
Aroclor-1254	2.5	93	mg/kg
Aroclor-1260	6.7	93	mg/kg

Site Controls: This administrative UR area is established at the boundary identified by the coordinates listed above and depicted in the attached figure. No physical site controls are required for this administrative use restriction.

UR Maintenance Requirements (applies to both FFACO and Administrative UR(s) if Administrative UR exists):

Description: This administrative UR is recorded in the FFACO database, NNSA/NFO M&O GIS, and the NNSA/NFO CAU/CAS files. No site controls are required for this administrative UR other than the administrative controls for land use at the NNSS.

Inspection/Maintenance Frequency: N/A

The future use of any land related to this Corrective Action Unit (CAU), as described by the above surveyed location, 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.

Use Restriction Information

Comments: Personnel are restricted from performing work in this location that would require any use of the area within the UR for activities that would result in a more intensive use of the site than the current land use (i.e., activities consistent with the occasional use exposure scenario). Activities included in the current land use would include short duration activities such as site visits, maintenance of the fence, radiological surveys, short duration radiological training, and retrieval of objects within the use-restricted area. Any activities to be conducted within this area that are not consistent with this defined current land use require the prior notification and approval of the NDEP.

Submitted By: /s/ Tiffany A. Lantow

Date:

12/11/2013

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Administrative Use Restriction
CAU 543 CAS 06-07-01
Decon Pad

Explanation

Administrative Use Restriction Boundary

Coordinate System: NAD 1983 UTM Zone 11N, Meter

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