

UNCONTROLLED
FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFACO)
RECORD OF TECHNICAL CHANGE (ROTC)

Corrective Action Unit (CAU) Number: 271

CAU Description: Areas 25, 26, and 27 Septic Systems

CAU Owner: Industrial Sites - Environmental Restoration (ER)

ROTC No. DOE/NV--998-ADD-ROTC 1 **Page** 1 **of** 9

Document Type Closure Report (CR) **Date** 06/29/2021

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

Tiffany Gamero

Requestor Name

Long-Term Monitoring Activity Lead

Requestor Title

Description of Change:

1. This ROTC replaces the Use Restriction (UR) information listed in the documentation for CAU 271

UR forms have been updated to list all UR requirements, including but not limited to: post-closure site controls (signs, fencing, etc.), inspection and maintenance requirements, and Geographic Information Systems (GIS) coordinate information. The UR requirements and form(s) included in this ROTC represent the current corrective action requirements for each Corrective Action Site (CAS) in this CAU and supersede information concerning corrective action and post-closure requirements in existing documentation.

2. The UR boundary coordinate values changed due to conversion from North American Datum (NAD) 1927 to NAD 1983.
3. The current Administrative UR BMP of inspections for fence was not propagated into the new UR form.
4. Removed statement "See the CAU 271 Closure Report for additional

Justification:

1. Some changes in the UR requirements from those found in closure documents have been subsequently modified in letters, memos, and inspection reports. This has resulted in difficulty in determining current post-closure requirements. A review of the post-closure requirements for this CAU has been conducted to ensure that all requirements have been identified and documented on the new UR form. The new UR form was developed to be inclusive of all requirements for long-term monitoring and standardize information contained in the URs consistent with current protocols.
2. UR boundary coordinates need to be in one standardized coordinate system.
3. The current Administrative UR states that no fencing is required.
4. All requirements are listed on the new UR form.

UNCONTROLLED

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFACO)
RECORD OF TECHNICAL CHANGE (ROTC)

Corrective Action Unit (CAU) Number: 271

CAU Description: Areas 25, 26, and 27 Septic Systems

CAU Owner: Industrial Sites - Environmental Restoration (ER)

ROTC No. DOE/NV--998-ADD-ROTC 1 **Page** 2 **of** 9

Document Type Closure Report (CR) **Date** 06/29/2021

Description of Change:

information..."

Justification:

Schedule Impacts:

No impacts to schedule.

ROTC applies to the following document(s):

- ERRATA Sheet for CAU 271 CR (DOE/NV--998), dated 08/10/2010.
- Addendum for CAU 271 CR (DOE/NV--998-ADD), October 2008.
- U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004. Closure Report for Corrective Action Unit 271: Areas 25, 26, and 27 Septic Systems, Nevada Test Site, Nevada, Rev. 0, DOE/NV--998. Las Vegas, NV.

UNCONTROLLED

**FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFACO)
RECORD OF TECHNICAL CHANGE (ROTC)**

Corrective Action Unit (CAU) Number: 271

CAU Description: Areas 25, 26, and 27 Septic Systems

CAU Owner: Industrial Sites - Environmental Restoration (ER)

ROTC No. DOE/NV--998-ADD-ROTC 1 **Page** 3 **of** 9

Document Type Closure Report (CR) **Date** 06/29/2021

Approvals:

Tiffany A. Gamero Digitally signed by Tiffany A. Gamero
Date: 2021.07.07 13:36:29 -07'00'

Tiffany Gamero
Activity Lead
Environmental Management (EM) Nevada Program

Date _____

Bill R. Wilborn Digitally signed by Bill R. Wilborn
Date: 2021.07.07 13:55:48 -07'00'

Bill Wilborn
Deputy Program Manager, Operations
Environmental Management (EM) Nevada Program

Date _____

Christine Andres Digitally signed by Christine
Andres
Date: 2021.07.11 11:32:27 -07'00'

Chris Andres
Chief, Bureau of Federal Facilities
Nevada Division of Environmental Protection (NDEP)

Date _____

U.S. Department of Energy, Environmental Management Nevada Program

Use Restriction Information

General Information

Use Restriction (UR) Type(s):	Administrative Only
Corrective Action Unit (CAU) Number & Description:	271 - Areas 25, 26, and 27 Septic Systems
Corrective Action Site (CAS) Number & Description:	27-05-02 - Leachfield
CAU/CAS Owner:	Industrial Sites - ER
Note:	N/A

Section I. Federal Facility Agreement and Consent Order (FFACO) UR

An FFACO UR is not identified for this site.

Section II. Administrative UR

Basis for Administrative UR

Summary Statement: This Administrative UR is established to protect workers should future land use result in increased exposure to site contaminants. Chemical contaminants are present that exceed action levels under the Industrial Area (2,000 hours per year) exposure scenario.

Administrative UR Physical Description

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

UR Boundary	UR Point ¹	Easting ²	Northing ²
Admin Boundary	1	578,789	4,069,676
	2	578,772	4,069,701
	3	578,781	4,069,708
	4	578,798	4,069,683
	5	578,789	4,069,676

¹UR Points are listed clockwise beginning at the southernmost point. If multiple points share the southernmost Northing coordinate, the easternmost point is listed as Point 1.

²UR coordinate values presented herein were transformed from the North American Datum of 1927, and rounded to the nearest meter; resultant coordinates may not reflect the original precision of values contained within the source GIS data set.

U.S. Department of Energy, Environmental Management Nevada Program Use Restriction Information

Boundary Applies to: Both Surface and Subsurface

Depth is unknown.

Survey Source: Transit

Administrative UR Requirements

Administrative URs do not require onsite postings or other physical barriers, and they do not require periodic inspections or maintenance.

Site Controls:

This Administrative UR is recorded as described in **Section IV. Recordation Requirements** to restrict activities within the area defined by the coordinates listed above and depicted in the attached figure without prior notification of NDEP unless the activities are conducted under the provisions of 10 CFR, Part 835, Occupational Radiation Protection and 10 CFR, Part 851, Worker Safety and Health Program.

Section III. Supporting Documentation

UR Source Document(s)

ROTC 1 for CAU 271 CR Addendum (DOE/NV--998-ADD), dated 06/29/2021.

ERRATA Sheet for CAU 271 CR (DOE/NV--998), dated 08/10/2010.

Addendum for CAU 271 CR (DOE/NV--998-ADD), October 2008.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004. Closure Report for Corrective Action Unit 271: Areas 25, 26, and 27 Septic Systems, Nevada Test Site, Nevada, Rev. 0, DOE/NV--998. Las Vegas, NV.

Attachments

- Administrative UR Boundary Map (UTM, Zone 11, NAD 83 meters)
- Supplemental Information Figure (UTM, Zone 11, NAD 83 meters)

U.S. Department of Energy, Environmental Management Nevada Program Use Restriction Information

Section IV. Recordation Requirements

Recordation:

The above UR(s) are recorded in the:

- FFACO Database
- NNSA M&O Contractor GIS
- EM Nevada Program CAU/CAS Files

Section V. EM Nevada Program Approval

Tiffany A. Gamero

 Digitally signed by Tiffany A.
Gamero
Date: 2021.07.07 13:37:00 -07'00'

Date: _____

Tiffany Gamero

Activity Lead

EM Nevada Program

578,775

578,790

578,805

4,069,705

4,069,690

4,069,675

2
E: 578,772
N: 4,069,701

3
E: 578,781
N: 4,069,708

1
E: 578,789
N: 4,069,676

5
E: 578,789
N: 4,069,676

4
E: 578,798
N: 4,069,683

H:\271\GPS\CAS27-05-02\AdminUR.mxd - 2/25/2020

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



CAU 271, CAS 27-05-02 Leachfield Administrative UR Boundary

Explanation

Administrative UR

0 2.5 5 10
Meters

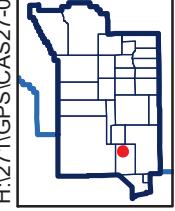
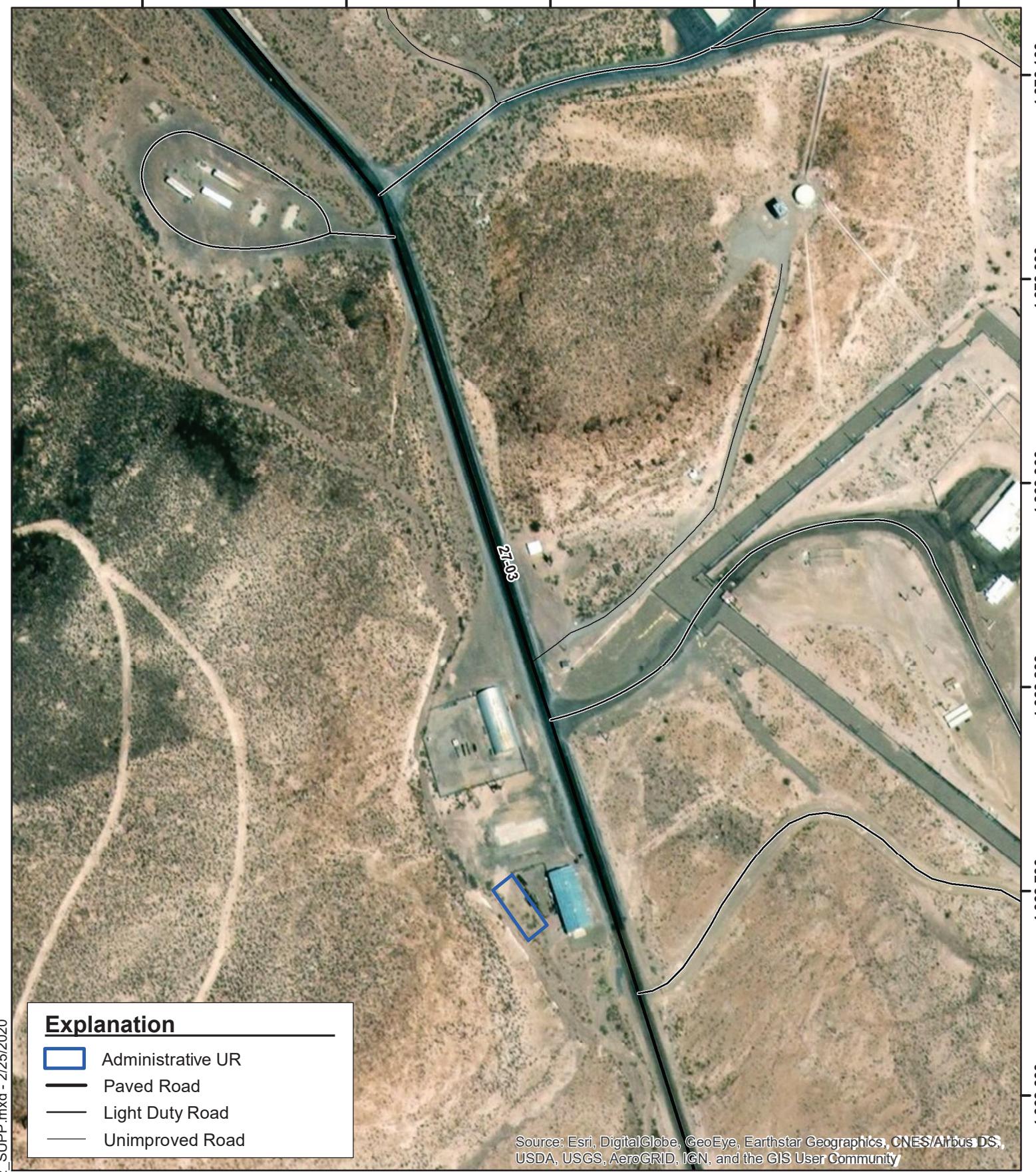
0 7.5 15 30
Feet

Source: Navarro GIS, 2020

Coordinate System: NAD 1983 UTM Zone 11N, Meter

Supplemental Information Figure

The attached supplemental information figure(s) are included to capture site feature information that was available in previous iterations of this Use Restriction (UR) to prevent loss of that information.



**CAU 271, CAS 27-05-02
Leachfield
Supplemental Information
General Location of Site Features**

Source: Navarro GIS, 2020

0 20 40 80 Meters

0 50 100 200 Feet

NOTE: Size and location of features are approximated

Coordinate System: NAD 1983 UTM Zone 11N, Meter



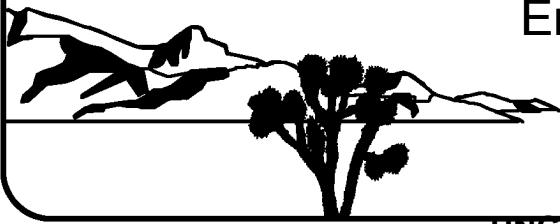
Addendum to the Closure Report for Corrective Action Unit 271: Areas 25, 26, and 27 Septic Systems Nevada Test Site, Nevada

Controlled Copy No.: UNCONTROLLED
Revision No.: 0

October 2008

Approved for public release; further dissemination unlimited.

Environmental Restoration
Project



Available for public sale, in paper, from:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Phone: 800.553.6847
Fax: 703.605.6900
Email: 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 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
Phone: 865.576.8401
Fax: 865.576.5728
Email: reports@adonis.osti.gov

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 United States Government or any agency thereof or its contractors or subcontractors.



**ADDENDUM TO THE CLOSURE REPORT
FOR CORRECTIVE ACTION UNIT 271:
AREAS 25, 26, AND 27 SEPTIC SYSTEMS
NEVADA TEST SITE, NEVADA**

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

Controlled Copy No.: **UNCONTROLLED**

Revision No.: 0

October 2008

Approved for public release; further dissemination unlimited.

Addendum to the Closure Report for Modification of the Use Restriction

This document constitutes an addendum to the August 2004, Closure Report for Corrective Action Unit 271, Areas 25, 26, and 27 Septic Systems 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 modification of the UR for CAS 27-05-02, Leachfield. This UR was established as part of a *Federal Facility Agreement and Consent Order* (FFACO) corrective action and is 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 this 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 *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 UR) to risk-based final action levels (FALs) developed using the current Industrial Sites RBCA process.

The re-evaluation resulted in a recommendation to modify the UR to an administrative UR. Administrative URs differ from standard URs in that they do not require onsite postings (i.e., signs) or other physical barriers (e.g., fencing, monuments), and they do not require periodic inspections (see Section 6.2 of the *Industrial Sites Project Establishment of Final Action Levels* [NNSA/NSO, 2006c]). This Administrative UR was based on an “Occasional Use Area” future land use scenario that was used to calculate the FAL. The administrative UR will protect workers from an exposure exceeding that used in the calculation of the FAL (i.e., 400 total work hours). Any proposed activity within this use restricted area that would potentially cause an exposure exceeding this exposure limit would require approval from the Nevada Division of Environmental Protection (NDEP).

Requirements for inspecting and maintaining postings at this UR will be canceled, and the postings and signage at this site will be removed. Fencing and posting may be present at this site that are unrelated to the FFACO UR 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 this site.



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

Controlled Copy No.: **UNCONTROLLED**
Revision No.: 0

February 2008

Approved for public release; further dissemination unlimited.

Environmental Restoration
Project

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

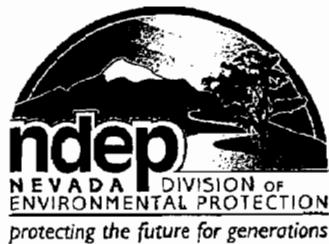
**Recommendations and Justifications for Modifications for
Use Restrictions Established under the U.S. Department of Energy,
National Nuclear Security Administration Nevada Site Office
*Federal Facility Agreement and Consent Order***

Approved by: /s/ Kevin J. Cabble Date: 02/05/2008

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

Approved by: /s/ John B. Jones Date: 02/04/2008

John B. Jones
Acting Federal Project Director
Environmental Restoration Project



STATE OF NEVADA

Department of Conservation & Natural Resources

DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor

Allen Biaggi, Director

Leo M. Drazdoff, 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
FFACO Group, PSG, NNSA/NSO, Las Vegas, NV
David C. Loewer, DTTRA/CXT1, M/S 645, Mercury, NV
W.R. Griffin, SNJV/DTTRA, M/S 645, Mercury, NV
T.A. Thiele, NSTec, Las Vegas, NV
R.F. Boehlecke, SNJV, Las Vegas, NV
K. J. Cabble, ERP, NNSA/NSO, Las Vegas, NV
John Wong, Jeff MacDougall, Dennis Nicodemus, NDEP Las Vegas, NV



7.0 CAU 271, CAS 27-05-02 – Leachfield

7.1 CAS Description

The septic system is located southwest of Building 5210 and west of Building 5200. The west side of the CAS 27-05-02 leachfield is bordered by a natural wash (i.e., arroyo). The septic system received effluent from restroom facilities including toilets, urinals, sinks, and floor drains inside Buildings 5210 and 5200. In addition, Building 5210 had a full kitchen with food preparation, dish washing, and cleanup operations. Building 5200 contained a service sink and an acid dip tank located beside a sink on a “solder bench.” The septic system consisted of the influent lines from Buildings 5210 and 5200, a septic tank, a distribution structure, and a leachfield. The septic tank and distribution structure were removed as part of the corrective action. The remaining leachfield is approximately 80 ft long by 24 ft wide and consists of five 4-inch (in.), parallel orangeburg distribution lines. The lines are approximately 80 ft long and spaced 6 ft apart on center. The distribution lines are placed in 2-ft-wide trenches. A layer of approximately 18 in. of coarse gravel served as leachrock in each trench. The septic tank, manhole, and distribution box were removed (DOE/NV, 2001b).

7.2 Current Use Restriction Description

The future use of any land affected by this UR 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. The only remaining COCs associated with this CAS are confined to the leachfield. The UR was implemented for the leachfield to control inadvertent intrusion or exposure to the leachfield. Warning signs were installed at the four corners of the leachfield. An inspection will be performed annually and will consist of visual observations to verify that the proper signs are in place and readable, and the UR is maintained (NNSA/NSO, 2004a).

7.3 Basis for Current Use Restriction

Samples from this CAS were analyzed for VOCs, SVOCs, RCRA metals, TPH (DRO and GRO), and PCBs. The PALs were not exceeded in any of the soil samples from remaining materials (following remediation) except arsenic and PCBs.

Arsenic was detected above the PAL of 2.7 mg/kg in 50 percent of the samples analyzed. Arsenic was detected at concentrations up to 4.93 mg/kg. Concentrations of arsenic are

consistent in the leachfield soil and do not appear to represent locations of elevated radioactivity or evidence of a localized spill. Although arsenic concentrations in the soil exceed the PAL of 2.7 mg/kg, these concentrations are believed to be within ambient conditions for CAS 27-05-02 and do not represent contamination. Therefore, arsenic is not considered to be a basis for this UR (NNSA/NSO, 2004d).

Elevated PCB concentrations were identified in the leachfield soil. Aroclor 1254 was detected at 7,600 micrograms per kilogram ($\mu\text{g}/\text{kg}$) in one sample, exceeding the 1,000 $\mu\text{g}/\text{kg}$ PAL. Aroclor 1248 was detected in concentrations exceeding the 1,000 $\mu\text{g}/\text{kg}$ PAL, in 10 samples, at levels up to 22,000 $\mu\text{g}/\text{kg}$. The highest concentrations were detected in surface soil samples (NNSA/NSO, 2004d).

Table 7-1 contains analytical results of all COCs at CAS 27-05-02 that are the basis for the current UR. The sample matrix for all samples is soil.

Table 7-1
Sample Results for COCs at CAS 27-05-02
Used To Establish Current Use Restriction

Sample ID	Depth (ft bgs)	Aroclor 1248	Aroclor 1254
		PAL 1,000 $\mu\text{g}/\text{kg}$	PAL 1,000 $\mu\text{g}/\text{kg}$
271Q003	5.2 - 6.2	1,000	--
271Q203	5.5 - 6	5,300	7,600 (J)
271Q208	0 - 0.5	19,000	--
271Q224	0 - 1	22,000	--
271Q225	2.5 - 3	4,700	--
271Q228	0 - 0.5	8,400	--
271Q229	2.5 - 3	9,400	--
271Q230	2.5 - 3	1,500	--
271Q231	5.5 - 6	2,800	--
271Q232	8.5 - 9	5,800	--

bgs = Below ground surface

J = Estimated value

ft = Foot

-- = No detects above action levels

ID = Identification

PAL = Preliminary action level

$\mu\text{g}/\text{kg}$ = Micrograms per kilogram

7.4 Basis for Use Restriction Modification

The revised FALs for PCBs listed in Table 7-2 were established using the Tier 2-based FAL process presented in Section 2.2.2. These FALs were calculated using the Occasional Use Area site-specific exposure scenario. This scenario assumes that a worker will be exposed to the site contaminants for up to 400 total hours. This exposure scenario is for undeveloped sites, where there are no facilities, where an industrial worker would normally be assigned (NNSA/NSO, 2006c). Because CAS 27-05-02 is located in a remote area of the NTS (Area 27), no current or foreseeable future activities would cause any worker to be exposed to this site for a period of time exceeding that assumed in the Occasional Use Area site-specific scenario (i.e., 400 total hours). However, these undeveloped areas may be used for military type exercises where it is assumed that a worker could be exposed for a period of up to 80 hours per year for five years.

The UR modification would be to implement an administrative UR as described in Section 2.0. This administrative UR would restrict any activity that would result in any worker being within the UR boundary for a lifetime-duration of more than 400 total hours.

Table 7-2 presents the sample results that are the basis for the current UR and demonstrate that none exceed the revised FALs (based on an Occasional Use Area land-use scenario).

Table 7-2
Revised Final Action Levels for CAS 27-05-02
(Page 1 of 2)

Sample ID	Depth (ft bgs)	Aroclor 1248	Aroclor 1254
		Revised FAL 59,100 µg/kg	Revised FAL 49,100 µg/kg
271Q003	5.2 - 6.2	1,000	--
271Q203	5.5 - 6	5,300	7,600 (J)
271Q208	0 - 0.5	19,000	--
271Q224	0 - 1	22,000	--
271Q225	2.5 - 3	4,700	--
271Q228	0 - 0.5	8,400	--
271Q229	2.5 - 3	9,400	--
271Q230	2.5 - 3	1,500	--
271Q231	5.5 - 6	2,800	--

Table 7-2
Revised Final Action Levels for CAS 27-05-02
(Page 2 of 2)

Sample ID	Depth (ft bgs)	Aroclor 1248	Aroclor 1254
		Revised FAL 59,100 µg/kg	Revised FAL 49,100 µg/kg
271Q232	8.5 - 9	5,800	--

bgs = Below ground surface
FAL = Final action level
ft = Foot

ID = Identification
µg/kg = Micrograms per kilogram

J = Estimated value
-- = No detects above original action levels

7.5 Proposed Modification

Implement an administrative UR as described in Section 2.0 restricting any activity that would result in any worker being within the UR boundary for a lifetime-duration of more than 400 total hours. Remove all associated fencing and postings and discontinue inspection and maintenance at this site.

References

DOE/NV, see U.S. Department of Energy, Nevada Operations Office.

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.

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

U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office. 2001b. *Corrective Action Decision Document/Closure Report for Corrective Action Unit 321: Area 22 Weather Station Fuel Storage, Nevada Test Site, Nevada*, Rev. 1, DOE/NV--726. August. Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004f. *NV/YMP Radiological Control Manual*, DOE/NV--11718-079, Rev. 5. Prepared by Bechtel Nevada. Las Vegas, NV.

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.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004a. *Closure Report for Corrective Action Unit 271: Areas 25, 26, and 27 Septic Systems, Nevada Test Site, Nevada*, Rev. 0, DOE/NV--998. August. Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2004d. *Corrective Action Decision Document for Corrective Action Unit 271: Areas 25, 26, and 27 Septic Systems, Nevada Test Site, Nevada*, Rev. 1, DOE/NV--838-REV.1. September. Las Vegas, NV.

Library Distribution List

	<u>Copies</u>
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 100 N Stewart Street Carson City, NV 89701-4285	1 (Uncontrolled, electronic copy)