

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

Corrective Action Unit (CAU) Number: 254

CAU Description: Area 25 R-MAD Decontamination Facility

CAU Owner: Industrial Sites - Environmental Restoration (ER)

ROTC No. DOE/NV--803-ROTC 1 **Page** 1 of 10

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 254.

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 for CAS 25-23-06 were changed due to conversion from North American Datum (NAD) 1927 to NAD 1983.

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.

UNCONTROLLED

**FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFACO)
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ROTC No. DOE/NV--803-ROTC 1 **Page** 2 **of** 10

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

Schedule Impacts:

No impacts to schedule.

ROTC applies to the following document(s):

- U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office. 2002. Closure Report for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site Nevada, Rev. 0, DOE/NV--803. Las Vegas, NV.
- ERRATA Sheet for CAU 254 CR (DOE/NV--803), dated 08/15/2007.

UNCONTROLLED

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RECORD OF TECHNICAL CHANGE (ROTC)**

Corrective Action Unit (CAU) Number: 254

CAU Description: Area 25 R-MAD Decontamination Facility

CAU Owner: Industrial Sites - Environmental Restoration (ER)

ROTC No. DOE/NV--803-ROTC 1 **Page** 3 of 10

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

Approvals:

Tiffany A. Gamero Digitally signed by Tiffany A. Gamero
Date: 2021.07.07 12:14:14 -07'00'

Date _____

Tiffany Gamero

Activity Lead

Environmental Management (EM) Nevada Program

Bill R. Wilborn Digitally signed by Bill R. Wilborn
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Date _____

Bill Wilborn

Deputy Program Manager, Operations

Environmental Management (EM) Nevada Program

Christine Andres Digitally signed by Christine Andres
Date: 2021.07.10 16:11:20 -07'00'

Date _____

Christine Andres

Chief, Bureau of Federal Facilities

Nevada Division of Environmental Protection (NDEP)

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

Use Restriction Information

General Information	
Use Restriction (UR) Type(s):	FFACO Only
Corrective Action Unit (CAU) Number & Description:	254 - Area 25 R-MAD Decontamination Facility
Corrective Action Site (CAS) Number & Description:	25-23-06 - Decontamination Facility
CAU/CAS Owner:	Industrial Sites - ER
Note:	N/A

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

Basis for FFACO UR	
Summary Statement:	This FFACO UR is established to protect workers from inadvertent exposure to radiological contaminants that were released at this site. Radiological contaminants are assumed to be present that exceed action levels.

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

Use Restriction Information

FFACO UR Physical Description

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

UR Boundary	UR Point ¹	Easting ²	Northing ²
FFACO Boundary	1	567,999	4,074,648
	2	567,996	4,074,654
	3	568,005	4,074,659
	4	568,000	4,074,669
	5	568,009	4,074,674
	6	568,014	4,074,665
	7	568,023	4,074,670
	8	568,027	4,074,663
	9	568,018	4,074,658
	10	568,020	4,074,653
	11	568,012	4,074,649
	12	568,009	4,074,653
	13	567,999	4,074,648

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.

Boundary Applies to: Subsurface

Depth is unknown.

Survey Source: GPS

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

Use Restriction Information

FFACO UR Requirements

Site Controls:

This FFACO UR is recorded as described in **Section IV. Recordation Requirements** to restrict activities within the area 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.

Control	Criteria
Signage	Present and legible.

Inspection Frequency: Annual

Additional Considerations:

Consideration	Criteria
None	None

Requirements Comments: Surface is uncontaminated.

Section II. Administrative UR

An Administrative UR is not identified for this site.

Section III. Supporting Documentation

UR Source Document(s)

ROTC 1 for CAU 254 CR (DOE/NV--803), dated 06/29/2021.

ERRATA Sheet for CAU 254 CR (DOE/NV--803), dated 08/15/2007.

U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office. 2002. Closure Report for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, Rev. 0, DOE/NV--803, February. Las Vegas, NV.

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

Attachments

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

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 12:14:33 -07'00'

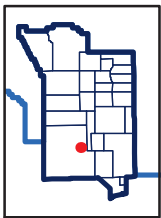
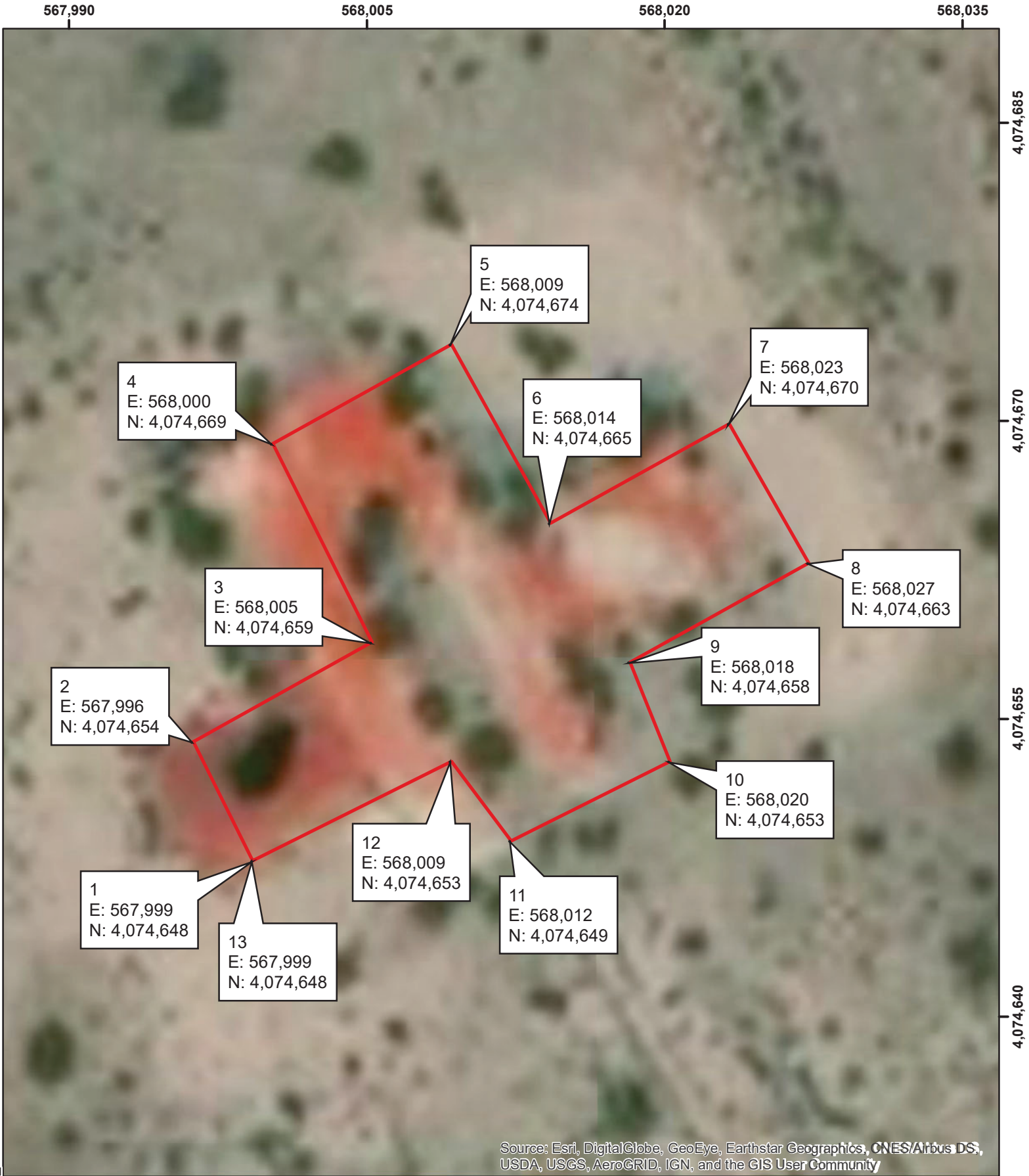
Date: _____

Tiffany Gamero

Activity Lead

EM Nevada Program

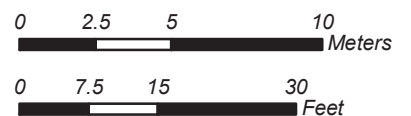
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**CAU 254, CAS 25-23-06
Decontamination Facility
FFACO UR Boundary**

Explanation

 FFACO UR



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.

568,000

Area of Former Railroad Tracks
(Soil Backfill)

Northeast
Outdoor Pad

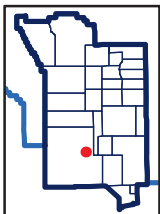
CAS 25-23-06

Southwest
Outdoor Pad

Explanation

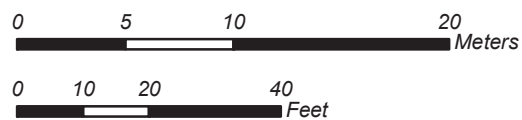
- FFACO UR
- Area of Former Railroad Tracks (Soil Backfill)
- Underground Radioactive Material Sign

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



Source: Navarro GIS, 2020

CAU 254, CAS 25-23-06 Decontamination Facility Supplemental Information General Location of Site Features



NOTE: Size and location of features are approximated
Coordinate System: NAD 1983 UTM Zone 11N, Meter

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ERRATA SHEET

The Following Corrections and Clarifications Apply to: Closure Report for Corrective Action
Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada

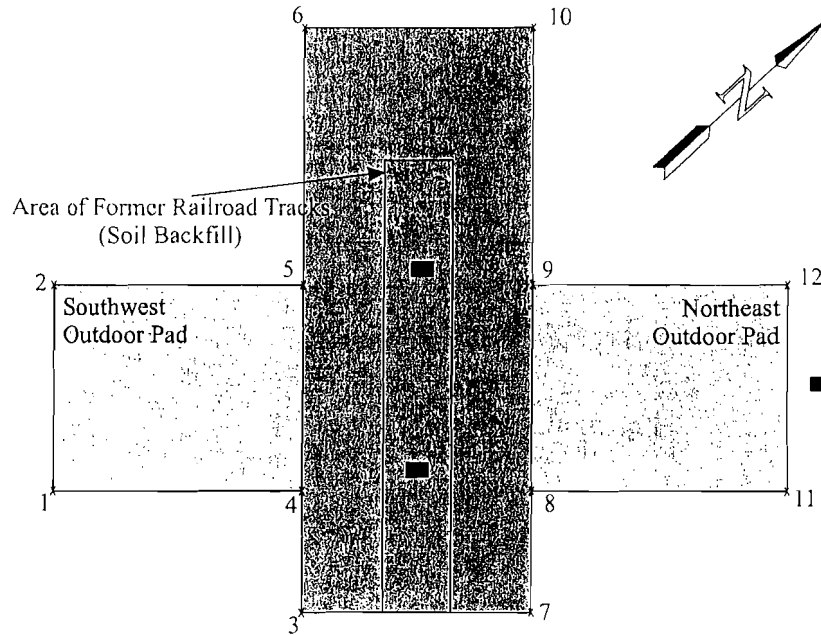
DOE Document Number: DOE/NV--803

Revision: 0

Original Document Issuance Date: February 2002

This errata sheet was issued under cover letter from DOE on August 15, 2007

The survey map referenced on Page F-10 is a draft. This errata sheet replaces the map with a final version. All recipients of this errata sheet shall replace Page F-10 with the attached map.



Coordinate	Northing	Easting
1	4,074,451	568,079
2	4,074,457	568,076
3	4,074,452	568,092
4	4,074,456	568,089
5	4,074,462	568,085
6	4,074,472	568,080
7	4,074,456	568,100
8	4,074,461	568,098
9	4,074,468	568,094
10	4,074,477	568,089
11	4,074,466	568,107
12	4,074,473	568,103

LEGEND	
■	Underground Radioactive Material Sign
X	Surveyed Coordinate (UTM, Zone 11, NAD 27, meters)

**CORRECTIVE ACTION SITE 25-23-06, DECONTAMINATION FACILITY
USE RESTRICTION BOUNDARY**

**CLOSURE REPORT FOR
CORRECTIVE ACTION UNIT 254:
AREA 25 R-MAD DECONTAMINATION FACILITY,
NEVADA TEST SITE, NEVADA**

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

Controlled Copy No. _____ UNCONTROLLED

Revision: 0

February 2002

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**CLOSURE REPORT FOR
CORRECTIVE ACTION UNIT 254:
AREA 25 R-MAD DECONTAMINATION FACILITY,
NEVADA TEST SITE, NEVADA**

Approved by: /s/ Janet Appenzeller-Wing
Janet L. Appenzeller-Wing, Project Manager
Industrial Sites Project

Date: 2/25/02

Approved by: /s/ Runore Wycoff
Runore C. Wycoff, Director
Environmental Restoration Division

Date: 2/25/02

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DISTRIBUTION LIST

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ACRONYMS AND ABBREVIATIONS

ACM	Asbestos-containing Material
AST	Above-ground Storage Tank
BN	Bechtel Nevada
BGS	Below Ground Surface
°C	degrees Celcius
CADD	Corrective Action Decision Document
CAP	Corrective Action Plan
CAS	Corrective Action Site
CAU	Corrective Action Unit
cm	centimeter
cm ²	square centimeter
CR	Closure Report
Cs	Cesium-137
CSS	Construction Site Superintendent
DOE/NV	U. S. Department of Energy, Nevada Operations Office
dpm	disintegrations per minute
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
EZ	Exclusion Zone
FFACO	Federal Facility Agreement and Consent Order
FIDLER	Field Instrument for the Detection of Low Energy Radiation
FMP	Field Management Plan
ft	feet/foot
ft ²	square feet
gal	gallon
HSO	Health and Safety Officer
in	Inches
in ²	square inches
ISOCS	In-Situ Object Counting System
IT	International Technologies
K	thousand
Kg	kilogram
km	kilometers

ACRONYMS AND ABBREVIATIONS (Continued)

L	liter
lbs	pounds
LDR	Land Disposal Restrictions
LLW	low-level waste
m	meter
m ²	square meter
m ³	cubic meter
MDA	Minimum Detectable Activity
mg/kg	milligram per kilogram
MW	Mixed Waste
NDEP	Nevada Division of Environmental Protection
NEPA	National Environmental Policy Act
NNSA	National Nuclear Security Administration
NTS	Nevada Test Site
PAL	Preliminary Action Level
PCB	Polychlorinated Biphenyls
pCi/g	picocuries per gram
PPE	Personal Protective Equipment
PRG	Preliminary Remediation Goal
QC	Quality Control
R-MAD	Reactor Maintenance, Assembly, and Disassembly
RadCon	Radiological Control
RCRA	Resource Conservation and Recovery Act
REOP	Real Estate/Operations Permit
RMA	Radioactive Materials Area
ROTC	Record of Technical Change
RWMS	Radioactive Waste Management Site
RWP	Radiological Work Permit
SSHASP	Site-Specific Health and Safety Plan
SZ	Support Zone
TPH	total petroleum hydrocarbons
TRU	TransUranic
TSCA	Toxic Substance Control Act

ACRONYMS AND ABBREVIATIONS (Continued)

TSD	Treatment, Storage, and Disposal Facility
UTS	Universal Treatment Standard
VOC	volatile organic compound
WMA	Waste Management Area
yd ³	cubic yard

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EXECUTIVE SUMMARY

The Area 25 Reactor Maintenance, Assembly, and Disassembly (R-MAD) Decontamination Facility is identified in the Federal Facility Agreement and Consent Order of 1996 (FFACO) as Corrective Action Unit (CAU) 254. CAU 254 is located in Area 25 of the Nevada Test Site (NTS) and consists of a single Corrective Action Site (CAS), CAS 25-23-06. CAU 254 was closed in accordance with the Corrective Action Plan (CAP) for CAU 254, R-MAD Decontamination Facility (U. S. Department of Energy, Nevada Operations Office [DOE/NV], 2000a).

CAU 254 was historically used to perform radiological decontamination. The facility consisted of Building 3126, two outdoor decontamination pads, and surrounding soil within an existing perimeter fence. The site was used to decontaminate nuclear rocket test-car hardware and tooling from the early 1960s through the early 1970s, and to decontaminate a military tank in the early 1980s.

Site characterization data indicated that, in places, the surficial soil and building materials exceeded clean-up criteria for organic compounds, metals, and radionuclides. Closure activities generated waste streams consisting of nonhazardous construction waste, petroleum hydrocarbon waste, hazardous waste, low-level radioactive waste (LLW), and mixed waste (MW). Some of the wastes exceeded land disposal restriction (LDR) limits and required off-site treatment before disposal.

The recommended corrective action was revised from Alternative 2, Unrestricted Release Decontamination and Verification Survey to Corrective Action Alternative 3 - Unrestricted Release Decontamination, Verification Survey, and Dismantle Building 3126, in an addendum to the Correction Action Decision Document (CADD) (DOE/NV, 2000c).

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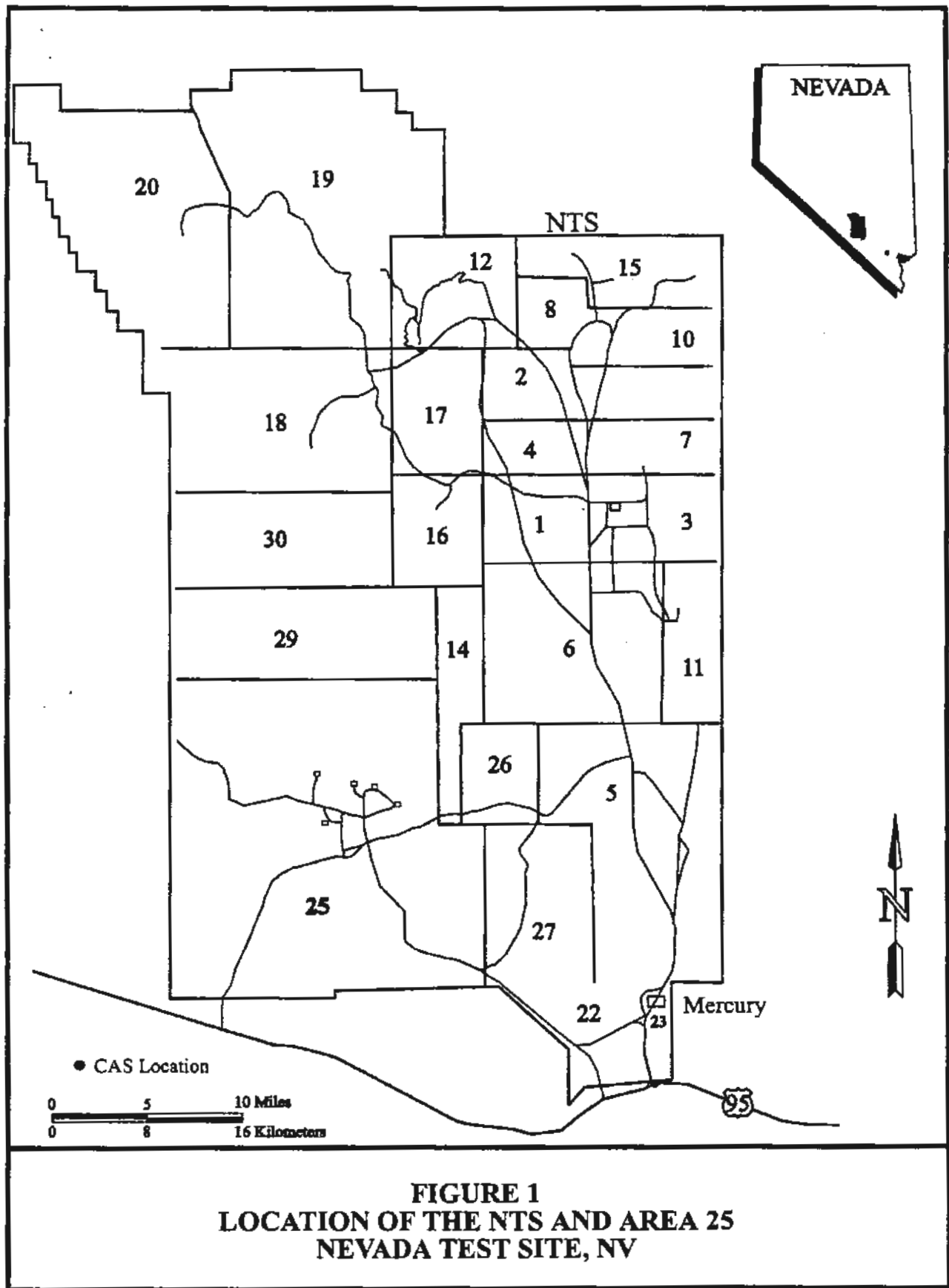
1.0 INTRODUCTION

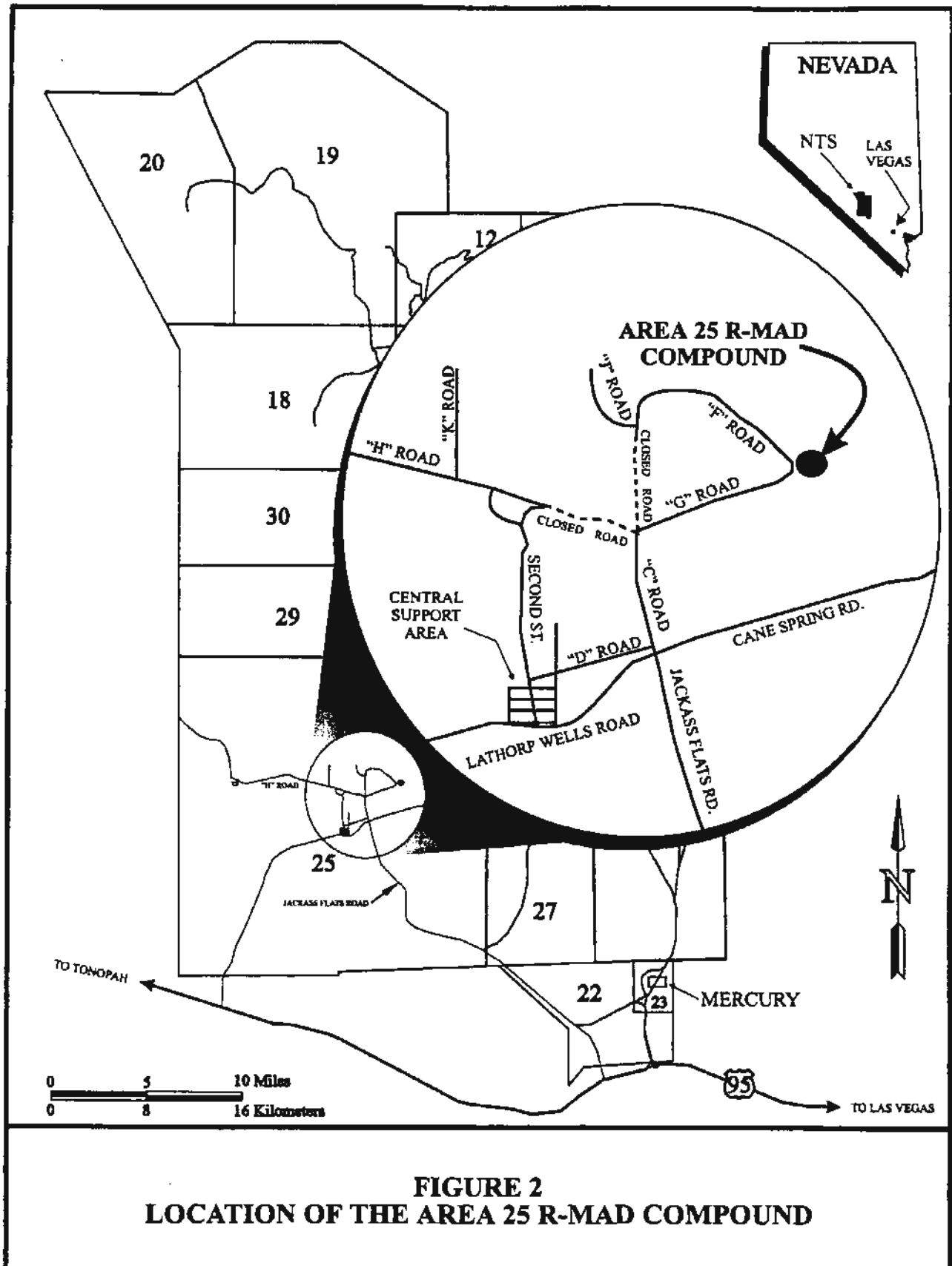
Corrective Action Unit (CAU) 254 is located in Area 25 of the Nevada Test Site (NTS), approximately 100 kilometers (km) (62 miles [mi]) northwest of Las Vegas, Nevada (Figure 1). The site is located within the Reactor Maintenance, Assembly and Dissassembly (R-MAD) compound (Figure 2) and consists of Building 3126, two outdoor decontamination pads, and surrounding areas within an existing fenced area measuring approximately 50 x 37 meters (m) (160 x 120 feet [ft]) (Figures 3 and 4). The site was used from the early 1960s to the early 1970s as part of the Nuclear Rocket Development Station program to decontaminate test-car hardware and tooling. The site was reactivated in the early 1980s to decontaminate a radiologically contaminated military tank.

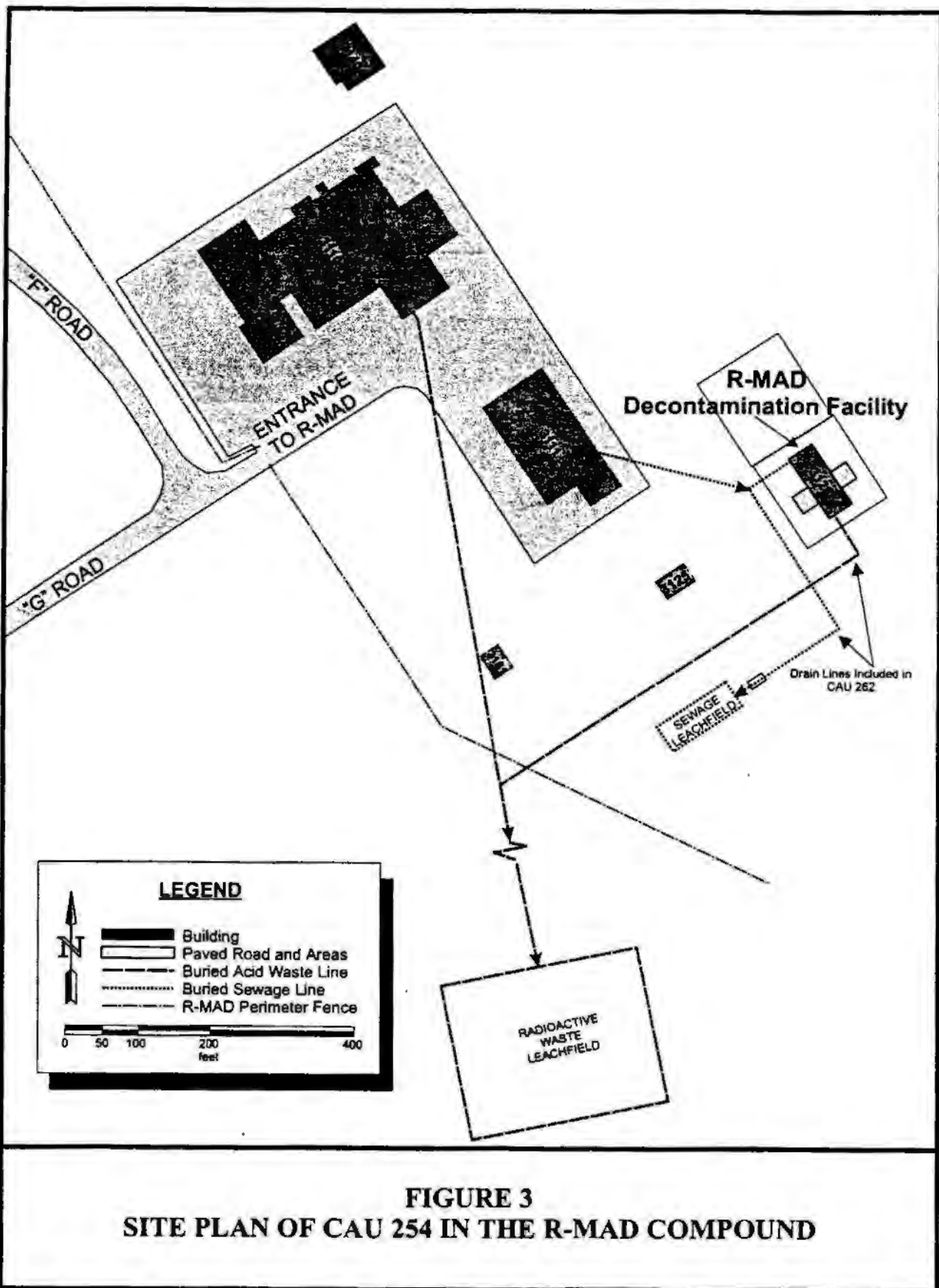
1.1 PURPOSE

This Closure Report (CR) describes the closure activities performed to allow un-restricted release of the R-MAD Decontamination Facility. The site is identified in the Federal Facility Agreement and Consent Order (FFACO) as CAU 254, which consists of Corrective Action Site (CAS) 25-23-06, Decontamination Facility. Remediation of CAU 254 and CAS 25-23-06 is required under the FFACO (FFACO, 1996). The CR also provides the analytical and radiological survey data to confirm that the closure activities were performed as specified in the Corrective Action Plan (CAP) (U. S. Department of Energy, Nevada Operations Office [DOE/NV], 2000a).

The Corrective Action Investigation Plan (DOE/NV, 1999a) described the site history, outlined a site characterization plan, and proposed Preliminary Action Levels (PALs) as clean-up goals to achieve restricted release. Site characterization activities were performed in January and February 2000, and reported in the Corrective Action Decision Document (CADD) (DOE/NV, 2000b). The Nevada Division of Environmental Protection (NDEP) approved the CADD (DOE/NV, 2000b), which recommended Corrective Action Alternative 2 - Unrestricted Release Decontamination and Verification Survey. This decision to leave Building 3126 standing was changed to removal of Building 3126 in an addendum (DOE/NV, 2000c), which recommends Corrective Action Alternative 3 - Unrestricted Release Decontamination, Verification Survey, and Dismantle Building 3126. Use restrictions will include prohibiting intrusive activities into, and beneath, the concrete foundation and surrounding soil.







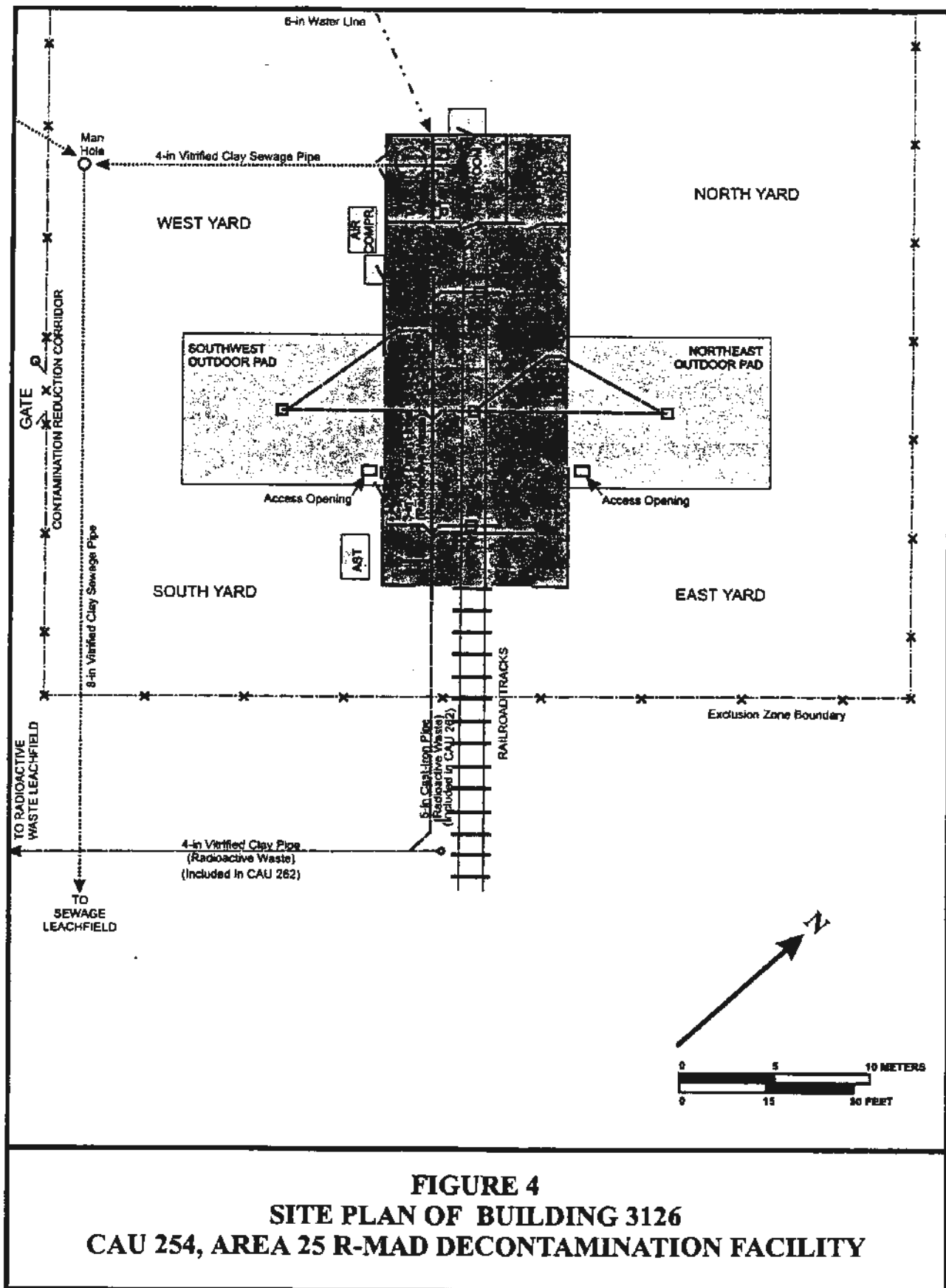


FIGURE 4
SITE PLAN OF BUILDING 3126
CAU 254, AREA 25 R-MAD DECONTAMINATION FACILITY

1.2 SCOPE

The purpose of Corrective Action Alternative 3, as recommended in the CADD Addendum (DOE/NV, 2000b), was to achieve closure through the following activities:

- Removal and disposal of contaminated soil and building materials.
- Verification that all contaminated soil and building materials have been removed.

The scope of work for closure of CAU 254 included the following field activities:

- Performed initial radiological surveys.
- Expanded fenced area and moved debris.
- Performed Hantavirus cleanup and removed roots.
- Disconnected electrical and water sources.
- Removed and encapsulated asbestos-containing materials (ACMs).
- Removed and segregated building materials.
- Removed impacted sediment and surficial soil.
- Demolished Building 3126.
- Grouted underground piping.
- Removed the radiologically contaminated surface of concrete foundation.
- Disposed of all waste generated during closure activities.
- Performed final radiological survey.
- Decontaminated equipment, removed fence, and requested release of site.

The soil beneath the concrete foundation was not investigated in the site characterization nor was it included in the approved alternative (DOE/NV, 2000a). The acid drain lines in the concrete foundation were grouted in the site characterization investigation (Bechtel Nevada [BN], 2000b) and are not included in the amended approved alternative (DOE/NV, 2000c). Site closure will, therefore, allow unrestricted access and use of the site above the ground surface but will include use restrictions to prohibit intrusive activities into, and beneath, the concrete foundation.

1.3 CLOSURE REPORT CONTENTS

This CR is divided into the following sections:

- Section 1.0 – Introduction
- Section 2.0 – Statement of Work
- Section 3.0 – Waste Management
- Section 4.0 – Closure Verification Results
- Section 5.0 – Use Restrictions
- Section 6.0 – References

The following sections and appendices, as outlined in the FFACO, have not been included:

- Section 4.0 – Post-Closure Plan (Inspections, Monitoring, Maintenance and Repair)

This section is not necessary pending approval of closure in place. Site closure will allow unrestricted access and use of the site above the ground surface, but will include use restrictions to prohibit intrusive activities into, and beneath, the concrete foundation.

- Appendix A – Engineering Specifications and Drawings.

This appendix is not warranted for the site as there are no construction or engineered cover requirements for closure.

- Appendix B – Sampling and Analysis Plan

The sampling and analysis requirements for the site are detailed in Section 4.0, Closure Verification Results. A separate sampling and analysis plan, therefore, is not included as an appendix.

The appendices included in this document are provided as follows:

Appendix A	AS-BUILT DRAWINGS
Appendix B	WASTE PROFILES
Appendix C	VERIFICATION SAMPLES ANALYTICAL DATA
Appendix D	WASTE DISPOSITION DOCUMENTATION

Appendix E	RECORD OF TECHNICAL CHANGES (ROTCs)
Appendix F	USE RESTRICTION INFORMATION
Appendix G	COPIES OF FIELD NOTES
Appendix H	PROJECT ORGANIZATION
Appendix I	COMMENT RESPONSE DOCUMENTATION
Distribution List	

This report was primarily developed using information and guidance from the following documents:

- Bechtel Nevada, 2000. Waste Management Plan for Corrective Action Unit 254, Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, Las Vegas, NV.
- Federal Facility Agreement and Consent Order, 1996. Agreed to by the Nevada Division of Environmental Protection, the U.S. Department of Energy, and the U.S. Department of Defense.
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- U.S. Department of Energy, Nevada Operations Office, 2000c. Addendum to Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, DOE/NV--619-ADD, Las Vegas, NV.

2.0 STATEMENT OF WORK

2.1 DESCRIPTION OF CORRECTIVE ACTION ACTIVITIES

This section describes how the approved corrective action alternative, unrestricted release decontamination and verification survey, was implemented.

As previously discussed, the correction action alternative recommended in the CADD (DOE/NV, 2000b) was changed to Alternative 3 in an addendum (DOE/NV, 2000a) which added the removal of Building 3126. The scope of the approved alternative consisted of the following activities.

2.1.1 Planning, Site Preparation, and Permits

Prior to beginning corrective action field activities, planning documents and permits were prepared. These documents include the Site-Specific Health and Safety Plan (SSHASP), Field Management Plan (FMP), National Environmental Policy Act (NEPA) Checklist, Real Estate/Operations Permit (REOP), Radiological Work Permit (RWP), utility clearance, and excavation permit.

2.1.1.1 SSHASP

A SSHASP (including a Preliminary Hazard Analysis and Hazard Assessment) was prepared and a copy was kept at the site by the BN Environmental Restoration (ER) Health and Safety Officer (HSO). The SSHASP was reviewed and signed by all workers prior to beginning work. The HSO also maintained a material safety data sheet file for all chemicals brought to the site. The SSHASP provided a detailed, job-specific plan covering physical and environmental hazards, protection against accidents, and exposure of workers to contamination. It also discussed weather and air monitoring, accident reporting, and emergency procedures. Additional copies of the SSHASP are filed in the BN ER and Environment, Safety, and Health Division offices in Mercury, Nevada.

2.1.1.2 FMP

A FMP was prepared for the closure activities. The FMP outlined how the work was to be performed and included an integrated safety management plan and a detailed schedule for the project. In addition, the FMP identified responsible parties for each aspect of the project and indicated how decisions were to be made. Copies of the FMP were available at the site and are filed in the BN ER office in Mercury, Nevada.

2.1.1.3 NEPA

A NEPA Checklist was completed prior to and after all excavation activities at the site. Based on the findings of these surveys, excavation activities followed all applicable federal, state, and local laws, regulations, and permits for protection of the environment.

2.1.1.4 REOP

A REOP was obtained prior to beginning closure activities. The permit established DOE/NV as the prime authority possessing control of the site and accomplished the following:

- Established a sole governing organization responsible for safety.
- Identified hazards and controls associated with field operations pertinent to the site.
- Identified the hazardous materials located at the site for emergency response purposes.
- Ensured that DOE/NV reviewed and approved all work conducted in association with the site.
- Identified DOE/NV's responsibility to plan and schedule activities.
- Provided a mechanism to recover applicable infrastructure support costs.

2.1.1.5 RWP

RWPs were prepared and approved for the purpose of informing workers of the specific personal protective equipment (PPE) necessary to protect them while performing their tasks. The workers were required to read the permits and acknowledge their understanding of the requirements before entry into the exclusion zone. The RWPs were maintained by the radiological control personnel at the entrance to the site. All site workers were required to be Radiation Worker II trained in order to perform any work on-site.

2.1.1.6 Utility Clearances and Excavation Permits

A utility clearance was performed and an excavation permit was obtained prior to beginning excavation activities. A copy of the permit was filed on-site throughout the duration of the project.

2.1.2 Field Activities

2.1.2.1 Performed Radiological Surveys

Radiological surveys were performed continuously during closure activities to determine the presence and/or location of radiological impact, verify cleanup, monitor worker exposures, and determine waste disposition. Pre- and post-remediation radiological surveys were performed using the NE Electra (alpha/beta), Field Instrument for the Detection of Low Energy Radiation (FIDLER), and the Ludlum 101 and Geiger-Mueller Pancake detectors. The Tennelec Low-Background Counter, and In-Situ Object Counting System (ISOCS) technologies were used to obtain quantitative measurements from verification sample locations in remediated areas.

Hand-held survey instruments were calibrated to background levels by obtaining an integrated background reading in a similar environment, on similar materials to be remediated (i.e., background calibration was performed on a concrete surface free of impact when the day's activities required surveying the slab). These readings were acquired by identifying an area

known to be free of radiological contamination and marking off a 1-square meter (m^2) (10.6-square feet [ft^2]) grid. The instrument was then continuously moved over the grid for one minute. This procedure produced an average (integrated) reading of the background radiation present outside of the CAS boundaries. Instruments were also source-checked on a daily basis.

Radiological surveys were performed by demarcating the area to be remediated in $4\text{-}m^2$ ($43\text{-}ft^2$) grids for soil excavations, and $1\text{-}m^2$ grids ($10.6\text{-}ft^2$) for the concrete pad. Both the FIDLER and the Ludlum 101 Pancake instruments were used to perform an initial radiological survey. Data produced from this survey was compared to the values listed in Table 4-2 of the Radiological Control (RadCon) Manual (Table 1). Comparison of the initial survey data to those listed in Table 1 identified several "hotspots" (areas of activity greater than 15 thousand (K) disintegrations per minute [dpm]). After "hotspots" were identified and removed, the areas were resurveyed. A final post-remediation survey was then performed for both excavated areas and concrete surfaces (Figures 5 and 6, respectively). These figures present the final net beta count recorded in dpm/100 square centimeters (cm^2) (15.5 square inches [in^2]) over background levels. Alpha counts were not performed with portable instruments due to analytical results exhibiting a 10:1 beta-to-alpha ratio. The surface contamination limits for the alpha-emitting uranium nuclides are equivalent to the beta-gamma limits for Cesium-137 and Strontium-90. Therefore, if the beta values are less than those presented in Table 1, the alpha limits cannot be exceeded. A separate alpha count is, therefore, unnecessary.

Further discussion of radiologic survey methodologies is presented in Sections 2.1.2.7, Removed Impacted Soils and Sediments, and 2.1.2.10, Removed Surface of Concrete Foundation.

TABLE 1 ALLOWABLE TOTAL RESIDUAL SURFACE CONTAMINATION VALUES (TABLE 4-2; RADCON MANUAL)

RADIONUCLIDE	REMOVEABLE (dpm/100 cm^2)	TOTAL (FIXED/ REMOVEABLE) (dpm/100 cm^2)	MAXIMUM FIXED & REMOVEABLE (dpm/100 cm^2)
Transuramics: ^{125}I , ^{129}I , Ra^{226} , Ra^{228} , Ac^{227} , Th^{230} , Th^{232} , Pa^{231}	20	100	300
Th-nat: Sr^{90} , I^{131} , I^{133} , Ra^{223} , Ra^{224} , U^{232} , Th^{232}	200	1,000	3,000
U-nat: U^{235} , U^{238} & associated decay products & emitters	1,000 α	5,000 α	15,000 α
β - α emitters (radionuclides with decay modes other than β -emission or spontaneous fission) except Sr^{90} and others noted above.	1,000 $\alpha+\beta$	5,000 $\alpha+\beta$	15,000 $\alpha+\beta$

2.1.2.2 Expanded Fenced Area and Move Debris

In order to provide additional room to facilitate remedial activities, the existing fenced area was expanded to the northwest by approximately 60 m (200 ft). Existing debris, located outside the northwest fence, was removed and appropriately disposed with general construction waste.

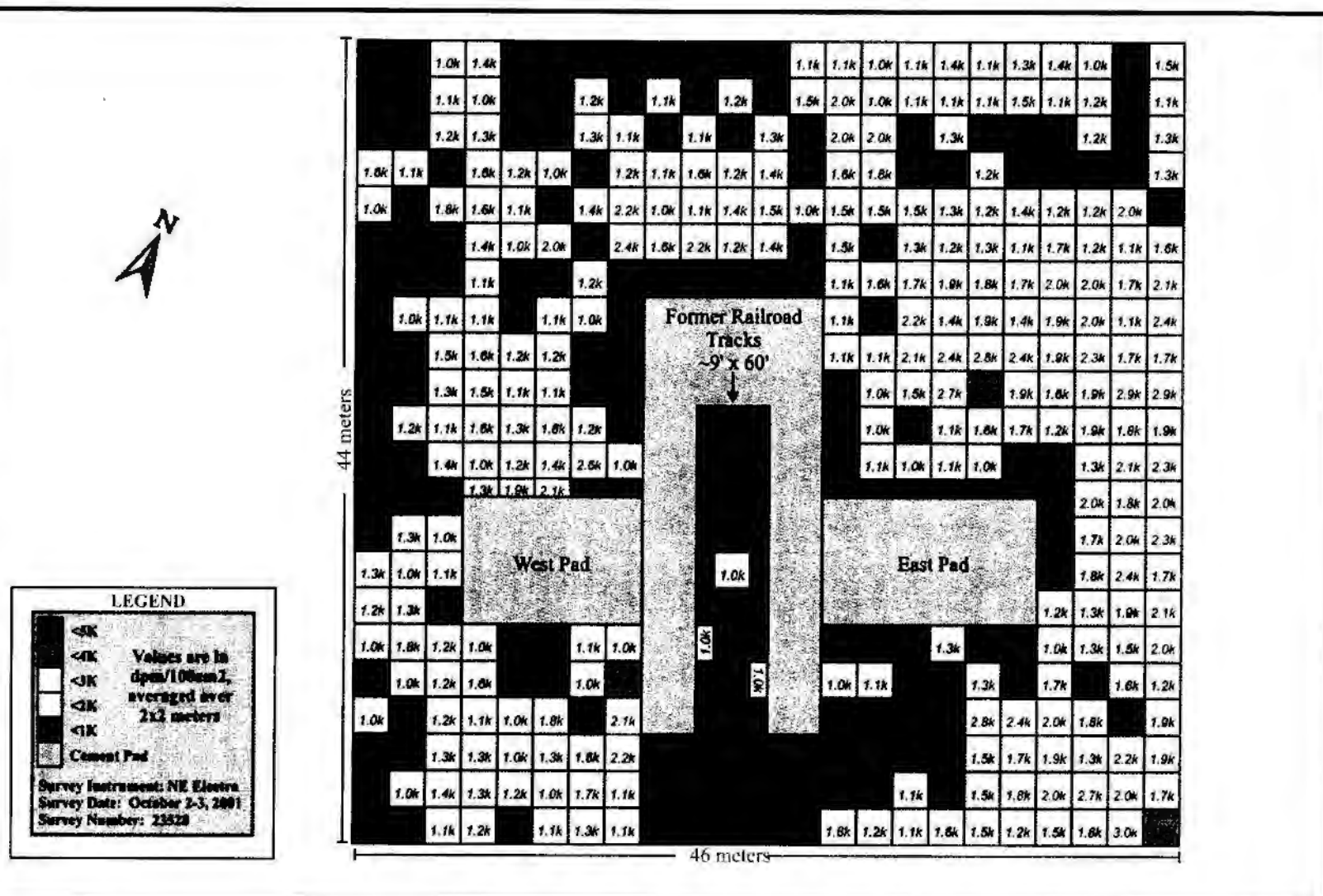


FIGURE 5
FINAL RADIOLOGICAL VERIFICATION SURVEY: SOILS, CAU 254

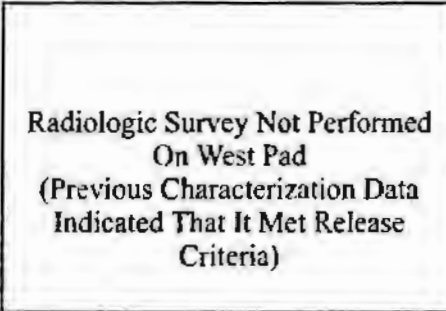


FIGURE 6
FINAL RADIOLOGICAL VERIFICATION SURVEY: CONCRETE PAD, CAU 254

2.1.2.3 Performed Hantavirus Cleanup and Removed Roots

Potential Hantavirus-bearing droppings and roots from outside plants that had invaded the restroom were radiologically surveyed. After the wastes were determined not to be radiologically impacted, they were removed and disposed as general construction waste.

2.1.2.4 Disconnected Electrical and Water Sources

Electrical and water service to Building 3126 was verified as terminated before any wires, conduit, junction boxes, pipes, pumps, or tanks were removed as part of the closure activities. After reviewing available construction drawings and schematics, and verifying that no residual power was present in the system, the electrical service was terminated by a qualified electrician. The water service was terminated by a qualified plumber.

2.1.2.5 Identified and Encapsulated Asbestos-Containing Materials

ACMs were previously identified in the Above-ground Storage Tank (AST) coating, pipe-elbow coatings, and transite panels. These materials were removed and handled by qualified workers. After this waste was safely encapsulated, it was placed in the appropriate waste stream for disposal.

2.1.2.6 Removed and Segregated Building Materials

Impacted building materials, including transite panels, insulation, lumber, and pipes, were removed and segregated into appropriate waste streams before Building 3126 was demolished. Impacted concrete surfaces were removed after demolition using shot-blast or similar decontamination methods.

Some unimpacted wastes were removed prior to building demolition. Hydrocarbon fluids were present in the air compressor and overhead crane gearbox. Samples were collected and analyzed for volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), and Radioisotopes. Results showed that the oil was not impacted and was recycled.

2.1.2.7 Removed Impacted Soils and Sediments

Approximately 111 cubic meter (m^3) (145 cubic yards [yd^3]) of impacted soil were excavated from the site (Figure 7). Initial radiological surveys were performed to identify general impacted areas and discrete hotspots around the perimeter of Building 3126. Measurements up to 1 million dpm beta-gamma and 14,000 dpm alpha were recorded. Surveys were performed by demarcating the area of soil to be excavated in 4- m^2 (43- ft^2) grids. The NE Electra alpha/beta instrument was then used to integrate (pass over in a continuous motion) each grid for one minute. Grids with readings greater than 15K dpm were marked and excavated until surveys showed no activity greater than 5 K dpm. If any "hotspots" (>5 K dpm) were discovered, they were removed by excavation and the grid was resurveyed. This process continued until no readings above 5 K dpm were recorded. A final post-remediation survey was then performed using the NE Electra instruments (Figure 5). This figure presents the net beta-gamma count recorded in dpm/100 cm^2 over background levels for the excavated areas.

Sediment in the northeast and southwest pad openings was previously determined to contain radionuclides, Arochlor-1260, and arsenic over the Preliminary Remediation Goals (PRGs)

(Table 2, Figure 7). The sample was also determined not to contain hazardous waste. Samples of the underlying soil only exceeded the PRG for Arochlor-1260. Sediment and underlying soil in the northeast and southwest pad openings were excavated and disposed.

2.1.2.8 Demolition of Building 3126

After removal of hazardous waste and impacted materials, the remaining building shell was demolished using a hydraulic shear attached to an excavator. Approximately 198,425 kilograms (kg) (440,945 pounds [lbs]) of general construction debris were generated (Appendix D). All debris was radiologically surveyed and found to be below the RadCon Manual surface contamination release limits. The waste was disposed as general construction waste.

2.1.2.9 Grouted Underground Piping

The acid drain lines were previously grouted closed (BN, 2000b). Underground piping associated with fresh water inlet, outflowing sewage, and decontamination fluid supply was grouted closed with a fast-curing chemical grout. Some piping, such as the outflowing sewage lines, was completely clogged with rootlets. The upper-most vegetative matter was removed to allow the drains to be grouted with at least 5 centimeters (cm) (2 inches [in]) of grout. Subsurface drain lines beyond the concrete foundation were not addressed in closure activities described in this CR. These drains are included in CAU 262.

2.1.2.10 Removed Surface of Concrete Foundation

The surface of the concrete pad was previously characterized by the International Technologiss (IT) Corporation. The NE Electra alpha/beta instrument was used to confirm "fixed" contamination areas before remediation began. The west outside decontamination pad was determined to meet surface contamination release limits and, therefore, required no further action. Any remaining areas with a reading greater than 5K dpm were marked for remediation. The upper-most surface (approximately 0.3 cm [1/4 in]) of the remaining concrete foundation was then removed using the shotblast decontamination method. Periodic surveys were then performed to identify remaining "hotspots". After remediation began, it was discovered that contamination was more deeply embedded in the concrete surface. Electric hand-chippers were then used to remove additional material. In several locations, the depth of impact was greater than what the hand-chippers could efficiently remove. At these locations, a hoe-ram (hydraulic hammer) was used to remove the remaining impacted material to depths not exceeding 7.6 cm (3 in) (Figure 9).

The center section of the slab containing the rails could not be easily remediated due to recessed areas and cracks that restricted access to impacted material. This area of the pad, approximately 49.5 m² (540 ft²) was demolished and removed (Figure 9). Removal activities generated a volume of approximately 3 m³ (4 yd³) of MW. This waste was transferred to B-25 boxes and accumulated in the radioactive materials area (RMA). Approximately (30 m³ [31.3 yd³]) of additional soil and base material were then excavated to an average depth of 61 cm (24 in). The material was placed in B-25 boxes and accumulated in the RMA. Radiological surveys were then performed throughout the excavation to verify that no "hotspots" remained. A source of clean backfill was identified and the excavation was backfilled and wheel-compacted to slab grade.

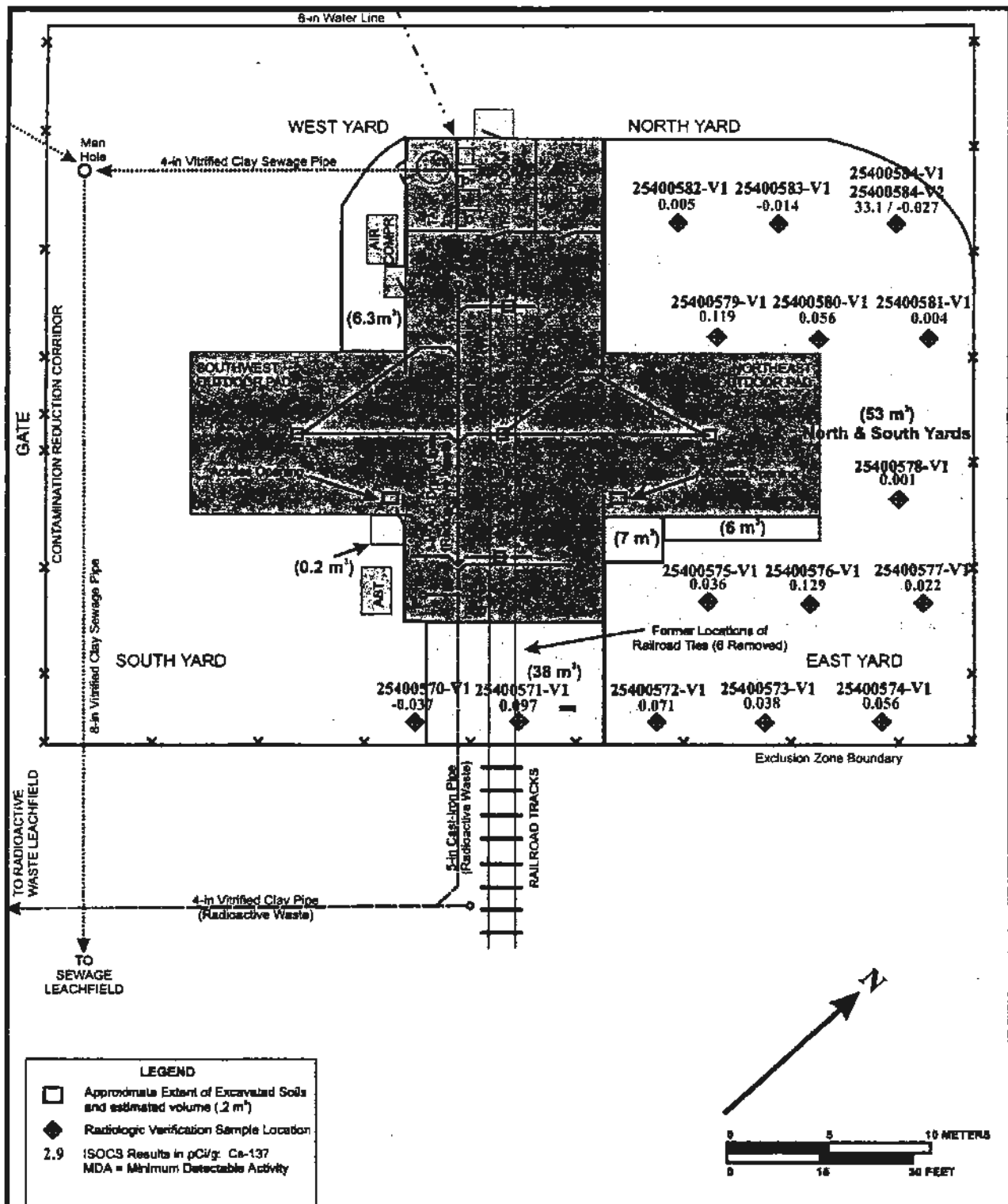


FIGURE 7
AREAL EXTENT AND VOLUMES OF EXCAVATED SOILS,
RADIOLOGIC VERIFICATION SAMPLE LOCATIONS,
AND GAMMA SPECTOMETRY (Cs-137) ANALYTICAL RESULTS
AREA 25 R-MAD DECONTAMINATION FACILITY

**TABLE 2 GAMMA SPECTROMETRY ANALYTICAL RESULTS;
RADIOLOGICAL VERIFICATION SAMPLES**

Sample Location	Gamma Spectrometry (EPA Method 901.1)				
	Am-241 (pCi/g)	Cs-137 (pCi/g)	K-40 (pCi/g)	U-235 (pCi/g)	U-238 (pCi/g)
25400570-V1	-0.058	-0.037	29.2	0.168	0.185
25400571-V1	-0.110	0.097	29.7	0.141	7.06
25400572-V1	-0.236	0.071	29.1	0.212	-0.504
25400573-V1	0.050	0.038	28.6	0.158	1.75
25400574-V1	-0.132	0.056	30.9	0.161	0.026
25400575-V1	0.051	0.036	31.7	0.083	3.91
25400576-V1	-0.039	0.129	30.6	0.184	1.21
25400577-V1	0.001	0.022	27.6	0.153	0.845
25400578-V1	-0.053	0.001	29.4	0.088	-1.96
25400579-V1	-0.124	0.119	30.5	0.205	2.44
25400580-V1	-0.160	0.056	35.0	0.264	2.82
25400581-V1	0.148	0.004	28.4	0.090	2.34
25400582-V1	0.021	0.005	28.3	0.200	-3.73
25400583-V1	0.035	-0.014	29.2	0.146	0.211
25400584-V1	-0.280	33.1	30.2	0.279	-2.06
25400584-V2 (Duplicate)	0.065	-0.027	31.3	0.136	-0.71
25400584-V1 (1)	N/A	22.69	N/A	N/A	N/A

Average based on original; 33.1 pCi/g

2.1

Average based on recount; 22.69 pCi/g

1.5

Notes:

N/A = Not Applicable

pCi/g = PicoCuries per gram

ISOCS = Insitu Object Counting System; Cesium-137 (Cs-137)

MDA = Minimum Detectable Activity

Am-241 = Americium 241

Cs-137 = Cesium 137

K-40 = Potassium 40

U-235 = Uranium 235

U-238 = Uranium 238

(1) = Cs-137 recount of sample 25400584-V1, averaged concentration of 8 aliquants

Only radioisotopes of interest are reported. For a full list of radioisotopes analyzed, refer to Appendix C.

TABLE 3 ANALYTICAL RESULTS FOR VERIFICATION SAMPLES

				PALs: Acetone: 8,200,000 (3) Toluene: 520 Naphthalene: ND (ug/kg)	PAL: Aroclor 1260: 1,000 (ug/kg)	PAL: TPH: 100 (mg/kg) (2)	Sr-90 (SRW01)	Alpha Spec. (ACW03)					Gamma Spec. (EPA 901.1)					
Sample Number	Sample Location	Sample Matrix	Date	Total VOCs EPA 8260 (ug/kg)	Total PCBs EPA 8062 (ug/kg)	TPH (8015M) (mg/kg)	Sr-90 (pCi/g)	Pu- 238 (pCi/g)	Pu- 239/240 (pCi/g)	U-233 U-234 (pCi/g)	U-235 (pCi/g) (1)	U-238 (pCi/g)	Am-241 (pCi/g)	Ce-137 (pCi/g)	K-40 (pCi/g)	U-235 (pCi/g)	U-238 (pCi/g)	Comments
25400548-V1	NE Pad Opening	Soil	8/20/01	-	A-1260: 740 Jc	-	2.08	0.0154	0.0107	3.49	0.189	0.724	ND	7.65	31	ND	1.79	Collected @ 3' bgs
25400547-V1	SW Pad Opening	Soil	8/20/01	-	A-1260: 950 Jc	-	ND	0.00598	ND	1.64	0.104	0.831	ND	0.819	30.4	ND	1.89	Duplicate for 25400548-V1
25400548-V1	SW Pad Opening	Soil	8/20/01	-	A-1260: 1600 Jc	-	ND	ND	0.00308	1.64	0.113	0.754	ND	0.933	29.9	ND	ND	N/A
25400548-V2	SW Pad Opening	Soil	8/5/01	-	A-1260: 71	-	-	-	-	-	-	-	-	-	-	-	-	Excavated additional 1'
25400518-V1	East Corner of NE Pad	Concrete	7/31/01	Acetone: 110	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A
25400525-V1	Northeast Bay Floor	Concrete	7/31/01	Acetone: 220 E Toluene: 7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A
25400542-V1	North of Southern Drain	Concrete	7/31/01	Acetone: 110	-	-	10.7	0	0.014	3	0.089	0.493	0	19.6	-	-	-	N/A
25400545-V1	Next to SW Pad Opening	Concrete	7/31/01	-	ND	-	0.903	0.002	0.013	0.73	-0.007	0.939	0.002	0.003	-	-	-	N/A
25400549-V1	East of Center Drain	Concrete	7/31/01	Acetone: 81	-	840 (4)	0.528	0.002	0.014	0.763	0.039	0.578	0.058	0.778	-	-	-	N/A
25400559-V1	SW Corner of Interior	Concrete	7/31/01	Acetone: 82	ND	-	1.18	-0.024	0	1.52	0.037	0.529	0.015	1.05	-	-	-	N/A
25400563-V1	Next to NE Pad Drain	Concrete	7/31/01	Acetone: 120 Naphthalene 29	-	54	5.13	-0.011	0.028	2.22	0.179	0.821	0.032	2.32	-	-	-	N/A

Notes:

- = Not Analyzed

A-1260 = Aroclor 1260 in ug/kg

E = Concentration exceeded calibration range

Jc = Potentially biased concentration; the continuing calibration verification (CCV) standard did not meet quality control requirements for this analyte. Overall CCV standard recoveries met method requirements - analytical

ND = Not Detected

N/A = Not Applicable

Pu = Plutonium

Sr-90 = Strontium 90

U = Uranium

1 = Soil Samples Include U-235 & U-238

2 = Applies only to soil matrices; Analytical results are for concrete matrix

3 = Acetone Exempted in Record of Technical Change #3.

4 = TPH samples collected to satisfy requirements of CAP; concentration does not apply to clean-up criteria

dpm = disintegrations per minute per 100 cm2

PAL = Preliminary Action Level (US EPA)

After surface remediation was complete, removeable contamination was assessed by taking one swipe sample per grid and analyzing the samples with the Tennelec low-background counter. No grids failed the swipe test. The final radiological survey was then performed using the NE Electra instrument (Figure 6); the pad was verified to be below RadCon Manual surface contamination release limits. After the site was verified clean, the perimeter fence was removed and disposed and warning signs were posted stating "Underground Radioactive Material."

2.1.2.11 Decontaminated Equipment, Removed Fence, and Released Site

Equipment used during remediation was decontaminated on-site by hand decontamination methods as necessary. No wet decon was required for large equipment. Hand-held equipment was cleaned with wet cloths or Masslin cloths.

2.2 DEVIATIONS FROM CAP AS APPROVED

Closure activities followed the methodologies specified in the CAP (DOE/NV, 2000a). Three exceptions existed as documented in the Record of Technical Change (ROTC) (Appendix E) numbers one through three:

- ROTC #1: Specified that verification soil samples would be collected from the excavated areas next to the pad and analyzed using Gamma Spectrometry; average radionuclide concentrations would not exceed 7 picocuries per gram (pCi/g) for Cesium-137, with no individual sample exceeding 21 pCi/g.
- ROTC #2: Specified an updated schedule for waste management outlining actual waste disposal time frames.
- ROTC #3: Specified a modification to the CAP to allow U. S. Environmental Protection Agency (EPA) Region 9 PRGs for acetone in soil to be used as the closure criteria for acetone concentrations remaining in the concrete pad.

One other deviation from the CAP occurred when demolishing the lead-impacted concrete compressor pad. The CAP originally specified that the concrete compressor pad would be decontaminated and the material removed from the pad was to be managed as hazardous waste. Calculations were performed by BN Waste Management that determined that lead levels would fall below the U10c Industrial Landfill Permit levels if the entire concrete pad was sized as one unit. Therefore, the entire concrete pad was sized and disposed as construction waste.

2.3 CORRECTIVE ACTION SCHEDULE AS COMPLETED

Field work was performed in the safest and most efficient manner possible. Sufficient flexibility was incorporated in the project schedule to account for minor difficulties (weather, equipment breakdown, etc.). The schedule required several modifications due to unexpected site conditions that were outside the assumptions on which the schedule was developed. In the event that the project schedule required modifications, the U.S. Department of Energy, National Nuclear

Security Administration Nevada Operations Office (NNSA/NV) consulted with NDEP personnel prior to initiating any changes.

2.3.1 Field Work Corrective Action Schedule

The following schedule was followed for field work:

+	Prepare for Field Work	February-May 2001
•	Remediation Field Work	May-September 2001
•	Management and Disposal of Waste	May-January 2002

2.3.2 Site Control

Closure activities for CAU 254 involved establishing a controlled work area that only qualified personnel could enter after being granted permission by the Construction Site Superintendent (CSS) or the HSO. Only personnel essential to the immediate task were allowed to enter the exclusion zone (EZ). All personnel were required to wear appropriate PPE. Personnel qualifications and required PPE for the EZ were downgraded or upgraded by the HSO as site conditions changed. Personnel entering or exiting the EZ would pass through the hot line where they would don or doff appropriate PPE and receive radiological frisking, if necessary. The area outside the EZ was considered the support zone (SZ). Warning signs were posted at key locations in the SZ directing all personnel arriving at the site (including visitors) to report to the CSS or HSO. Additional signs were posted along the EZ boundary to warn personnel not to enter without proper training and authorization.

Unintentional release of contaminants beyond the EZ was reduced through use of PPE, radiological frisking, equipment decontamination, and dust suppression. All equipment and materials were radiologically surveyed prior to removal from the EZ. Waste management areas (WMA), including the RMA, were located in the support zone, adjacent to the EZ.

2.4 SITE PLAN

The final, post-remediation site drawing is presented in Appendix A.

3.0 WASTE MANAGEMENT

This section discusses the wastes generated and waste management practices used during closure activities at CAU 254. Waste streams included construction waste, petroleum hydrocarbon waste, hazardous waste, MW, radiologically impacted PCB waste, and LLW. Table 4 presents waste stream data, Appendix B presents waste profiles, and Appendix D provides waste disposal documentation.

All waste characterization sampling and analysis, unless otherwise noted, was performed in accordance with the CAU 254 Sampling and Analysis Plan (BN 2001).

3.1 WASTE MINIMIZATION

All work activities followed the BN Waste Minimization and Pollution Prevention Program. Special care was given to segregate the waste streams to avoid the generation of additional waste. Contamination was removed from the majority of concrete surfaces to reduce the volume of LLW and or MW prior to disposal.

3.2 CONTAINER MANAGEMENT

All wastes were accumulated, stored, analyzed, and disposed of in accordance with applicable state and federal regulations, U.S. Department of Energy (DOE) Orders, BN Waste Management procedures, and the CAU-254, Area 25, R-MAD Decontamination Facility, Deactivation and Decommissioning Waste Management Plan (BN, 2001).

Staging areas for the various waste streams were located to the northwest portion of the site and were enclosed by the expanded perimeter fence. All waste accumulation areas were identified with appropriate signs, and boundaries were established to restrict unauthorized entrance. The waste accumulation areas were frequently inspected to ensure that all containers were intact and not leaking.

Standard 208 Liter (L) (55 gallons [gal]) drums were used for limited volumes of petroleum hydrocarbon waste, hazardous waste, and investigation-derived decontamination fluids. B-25 boxes were used for LLW and MW and were filled to meet their weight capacity (~3,600 kg) (8,000 lbs). Demolition debris was first placed in the B-25 boxes, followed by sediment, soil, and compactable waste, such as PPE and trash, to fill void spaces. After a box was filled, the waste package was closed according to BN Organization Procedure OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS (BN, 2000a). If a box was not completely filled at the end of a workday, the lid was closed without securing the clips and tamper-indicating tape was placed on the box. Drums containing free liquids were stored on spill containment pallets. Appropriate labels were used and relevant information was marked on each container with an indelible marker. The information was legible and clearly visible for inspections. Containers were labeled with information including:

TABLE 4 MIXED AND LOW-LEVEL WASTE STREAMS GENERATED DURING CLOSURE ACTIVITIES

WASTE TYPE	CONTAINER	CONTENTS	PACKAGE NUMBER	SHIPMENT DATE	Final Disposition	Gross lbs	Tare lbs	Net lbs
LLW	40-cy side-dump trailer, 3/8 filled	Soil from around bldg and NE pad	01L028	09/27/01	Area 3 RWMS	10,660	6,780	3,880
LLW	40-cy side-dump trailer, 3/4 filled	Soil from around bldg and NE pad	01L025	09/25/01	Area 3 RWMS	24,959	6,780	18,179
LLW	40-cy side-dump trailer, 3/4 filled	Soil from around bldg and NE pad	01L027	09/26/01	Area 3 RWMS	22,999	6,780	16,219
LLW	40-cy side-dump trailer, 3/4 filled	Soil from around bldg and NE pad	01L026	09/25/01	Area 3 RWMS	23,432	6,780	16,652
LLW	55-gal steel drum, 3/4 filled	Soil, SW pad opening	01L029	09/27/01	Area 5 RWMS	690	52	638
LLW	55-gal steel drum, 3/4 filled	Soil, NE pad opening	01L030	09/27/01	Area 5 RWMS	690	52	638
LLW	40-cy side-dump trailer, 3/4 filled	Soil from around bldg and NE pad	01L047	10/09/01	Area 3 RWMS	81,570	6,780	74,790
LLW	B-25 steel box, filled	Soil from around bldg and NE pad	980773	10/31/01	Area 5 RWMS	8,000	732	7,268
LLW	B-25 steel box, filled	Soil from around bldg and NE pad	982814	10/31/01	Area 5 RWMS	8,000	730	7,270
LLW	B-25 steel box, filled	Soil from around bldg and NE pad	982825	10/31/01	Area 5 RWMS	8,000	729	7,271
TOTAL LLW (lbs.)						189,000	n/a	152,805
TOTAL LLW (kg)						85,050	n/a	68,762
MW	24-gal steel drum, 1/2 full	lead bricks (repackaged into #02M001)	(Previous Label #01L040)	11/05/01	TRU Pad	n/a	n/a	n/a
MW	55-gal steel drum, 3/4 filled	Soil, lead bricks and pipe collars	#02M001	05/26/01	TRU Pad	302	52	250
MW	55-gal steel drum, filled	Plastic-wrapped asbestos pipe elbows	#01M17	05/14/01	TRU Pad	210	52	158
MW	55-gal steel drum, filled	Plastic-wrapped asbestos pipe elbows	#01M18	05/14/01	TRU Pad	180	52	128
MW	55-gal steel drum, 1/8 filled	Plastic-wrapped asbestos pipe elbows	#01M20	06/20/01	TRU Pad	90	52	38
MW	55-gal steel drum, filled	Plastic-wrapped asbestos pipe elbows	#01M19	06/14/01	TRU Pad	160	52	108
MW	B-25 steel box, filled	Decon bay debris (F003, F005)	982771	01/10/02	Area 5, Pit 3	1,890	720	1,170
MW	B-25 steel box, filled	Decon bay debris (F003, F005)	982798	01/10/02	Area 5, Pit 3	2,320	720	1,600
MW	B-25 steel box, filled	Decon bay debris (F003, F005)	982463	01/10/02	Area 5, Pit 3	2,460	731	1,729
MW	B-25 steel box, filled	Decon bay debris (F003, F005)	187059	01/10/02	Area 5, Pit 3	3,080	731	2,349
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	187078	01/10/02	Area 5, Pit 3	7,950	731	7,219
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	982785	01/10/02	Area 5, Pit 3	8,530	726	7,802
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	982455	01/10/02	Area 5, Pit 3	8,060	725	7,325
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	213903	01/10/02	Area 5, Pit 3	7,960	711	7,249
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	982778	01/10/02	Area 5, Pit 3	7,790	710	7,080
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	982472	01/10/02	Area 5, Pit 3	7,610	728	6,882
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	982796	01/10/02	Area 5, Pit 3	7,500	729	6,771
MW	B-25 steel box, filled	Concrete pad debris (inc. F003, F005)	980573	01/10/02	Area 5, Pit 3	7,500	730	6,770
MW	40-cy Roll-off	Concrete pad debris (inc. F003, F005)	#01M037	01/09/02	Area 5, Pit 3	48,740	6,780	41,960
MW	20-cy Roll-off	Concrete pad debris (inc. F003, F005)	#01M038	01/09/02	Area 5, Pit 3	56,700	5,120	51,580
MW	40-cy Roll-off	Concrete pad debris (inc. F003, F005)	#01M039	01/09/02	Area 5, Pit 3	67,360	6,780	60,600
MW	8x20 Sealand Container	Contains bulk-packed items:	11759	01/09/02	Area 5, Pit 3	16,200	n/a	n/a
MW	Bulk plastic-wrapped	Turbulator tank	#01-254M 0019	01/09/02	Area 5, Pit 3	1,510	0	1,510
MW	Bulk plastic-wrapped	Trolley motor and frame, F003, F005	#01-254M 0020	01/09/02	Area 5, Pit 3	360	0	360
MW	Bulk plastic-wrapped	RR cross-ties, F002, F003, F005	#01-254M 0016	01/09/02	Area 5, Pit 3	1,040	0	1,040
MW	Bulk plastic-wrapped	Bay-loft stairway	#01-254M 0022	01/09/02	Area 5, Pit 3	820	0	820
MW	Bulk plastic-wrapped	Painted metal door, F003, F005	#01-254M 0021	01/09/02	Area 5, Pit 3	100	0	100
MW	55-gal capacity steel drum	Hotline PPE (F003, F005)	#01M029	01/09/02	Area 5, Pit 3	90	52	38
MW	55-gal capacity steel drum	Hotline PPE (F003, F005)	#01M032	01/09/02	Area 5, Pit 3	180	52	128
MW	55-gal capacity steel drum	Hotline PPE (F003, F005)	#01M031	01/09/02	Area 5, Pit 3	130	52	78
MW	55-gal capacity steel drum	Hotline PPE (F003, F005)	#01M033	01/09/02	Area 5, Pit 3	170	52	118
MW	55-gal capacity steel drum	Hotline PPE (F003, F005)	#01M034	01/09/02	Area 5, Pit 3	340	52	288
MW	55-gal capacity steel drum	Hotline PPE (F003, F005)	#01M035	01/09/02	Area 5, Pit 3	170	52	118
MW	55-gal capacity steel drum	Hotline PPE (F003, F005)	#01M036	01/09/02	Area 5, Pit 3	150	52	98
MW	24-gal capacity steel drum	Shotblast waste	#01M023	01/09/02	Area 5, Pit 3	210	35	175
MW	24-gal capacity steel drum	Shotblast waste	#01M024	01/09/02	Area 5, Pit 3	200	35	165
MW	4x8-ft wood box	Transit panels, workbench, shelves	#01M022	01/09/02	Area 5, Pit 3	5,400	410	4,990
TOTAL MW (lbs.)						273,472	64,673	228,794
TOTAL MW (kg)						123,062	n/a	102,957
TOTAL LLW & MW (lbs.)						646,642	n/a	457,338
TOTAL LLW & MW (kg)						245,989	n/a	205,802

Notes:

Weights are approximate values only.

LLW = Low Level Waste

MW = Mixed Waste

cy = cubic yard

Bold Weights are Estimated Values

- RAD track label, hazardous waste label, or drum identification number, as appropriate.
- Waste type in container.
- Waste origin.
- Accumulation dates.
- Awaiting/pending analysis sticker if sampling was required.
- The words "Hazardous Waste" on containers of hazardous and mixed waste. To assure container integrity, all containers were physically inspected prior to being shipped off-site and at the time of unloading at the disposal designation.

3.3 WASTE STREAMS

3.3.1 Construction Wastes (NTS Class III Wastes)

3.3.1.1 General Debris

Approximately 219,086 kg (486,858 lbs) of construction waste in the form of demolition debris was generated from closure activities (Appendix D). Specific items include structural beams, exterior walls and roof, hot water tank, air compressor, the AST (including pipe elbow insulation), insulation, and nonhazardous PPE.

Building debris was segregated based on surface radiological survey data. Radiological surveys verified that the material did not exceed the "sum of the fractions" limits. Site characterization data were used as process knowledge to determine that building debris was not hazardous, and was not a Toxic Substances Control Act (TSCA) regulated waste. It was also determined that debris was not radiologically impacted at concentrations greater than specified in the Area 9, U-10c Industrial Landfill Permit (DOE/NV, 1997). This waste was transported to the Area 9, U-10c Industrial Landfill for disposal.

3.3.1.2 Asbestos-Containing Materials (ACM)

Both friable and non-friable ACM wastes were generated during closure activities. Inspection, sampling, and laboratory analysis identified ACM in the interior transite panels of the decontamination bay, on some pipe elbows, and on the exterior of the AST tank coating. Transite panels composed of non-friable ACMs were encapsulated and removed from the interior walls of Building 3126. These panels were then radiologically surveyed to determine which panels were impacted with radiological contamination above the "sum of the fractions" limits. Panels were segregated by radiological activity into two categories: waste with radiological activity that had a "sum of the fractions" less than or equal to one, and waste that had a "sum of the fractions" greater than one. According to the level of contamination, "construction waste" or "LLW" were marked on each panel. Low-level ACM panels were accumulated in B-25 boxes with other building debris with similar radiological activity. The waste was stored in the RMA and were disposed in the Area 5, Pit 3 Radioactive Waste Management Site (RWMS). Transite

panels with "sum of the fractions" less than or equal to one were burrito-wrapped and disposed in the Area 23 Sanitary Landfill asbestos disposal cell.

An unknown weight of friable ACM waste was generated during closure activities. Friable wastes (pipe elbow insulation) were accumulated in the AST which weighed approximately 2,637 kg (5,860 lbs). Both pipe elbows and the AST coated with friable ACMs were radiologically surveyed to determine which items were radiologically impacted. Both the AST and the pipe elbows were determined to have radionuclide "sum of the fractions" less than or equal to one. After being surveyed, the pipe elbows were encapsulated, removed, and accumulated inside the AST. The AST was then wrapped with plastic and placed inside a wooden box. Upon receipt of the approved waste profile, the waste was shipped to the Area 23 Sanitary Landfill Asbestos disposal cell. Elbows with radionuclide "sum of the fractions" greater than one were accumulated in a 55-gal drum and were disposed as LLW in the Area 5 Pit 3 RWMS. Information regarding this waste stream is presented in Appendix B, Asbestiform LLW, Waste Profile LRY5MWFY01021.

3.3.2 Petroleum Hydrocarbon Wastes

Less than 15 L (4 gal) of petroleum hydrocarbon waste was collected from the air compressor and overhead crane gearbox. Each waste stream was containerized separately. BN sampled each waste to determine if recycling was possible. The waste was then stored in the waste accumulation area pending review of analytical results. Upon reviewing the analytical results, the waste was determined not to be impacted. The waste was then recycled. Analytical results are not provided in this report, but are available upon request.

3.3.3 Hazardous Wastes

Information regarding the various hazardous wastes generated during closure activities at CAU 254 are presented in Appendix B, Hazardous Waste. Specifics on each component of the Hazardous Waste stream are discussed in the following sections.

3.3.3.1 Antifreeze

Approximately 15 L (4 gal) of compressor antifreeze was collected in a approved 38-L (10-gal) container. This waste was previously determined to contain arsenic (D004) above the Toxicity Characteristic Leaching Procedure (TCLP) and Universal Treatment Standard (UTS) limits and, thereby classified as hazardous waste requiring treatment. The waste was transported to BN Hazardous Waste and stored on the "Haz Pad" in Area 5 until receipt of an approved waste profile. The waste was shipped to an off-site treatment, storage, and disposal (TSD) facility for treatment and disposal in December 2001. Information regarding this waste stream is presented in Appendix B, Hazardous Waste, (Material Profile number 3015183).

3.3.3.2 PCB Ballasts

Two PCB ballasts were removed from the building that had the potential to contain PCB concentrations greater than 500 milligrams per kilogram (mg/kg). Surface radiological surveys determined that the ballasts were not radiologically impacted. The ballasts were wrapped in a

plastic bag, contained in a 19-L (5-gal) bucket, and stored in the WMA until being shipped to the Area 5 "Haz Pad" in June 2001. This waste was shipped to an off-site TSD facility for treatment and disposal in July 2001. Information regarding this waste stream is presented in Appendix B, Hazardous Waste, (Hazardous Waste Manifest 1065742).

3.3.3.3 Lead

Approximately 136.2 (300 lbs) of lead bricks and collars and 0.9 kg (2 lbs) of anti-seize lead compound was removed from the facility. The waste was surveyed and found not to be radiologically impacted. This waste was properly containerized and transferred to the 90-day storage area. The waste was shipped to an off-site TSD facility for treatment and disposal in December 2001. Information regarding this waste stream is presented in Appendix B, Hazardous Waste, (Material Profile 3015192).

3.3.4 Mixed Waste

Approximately 102,824 kg (228,492 lbs) or 165-m³ (215.8 yd³) of MW were generated during closure activities (Table 4). The waste stream consisted of hot-line trash, building debris in the form of transite panels, friable asbestos pipe elbows, non-ACM insulated pipes, wood and insulation, electrical equipment, conduit, a turbulator tank, concrete, and rebar. Building debris that was not characteristic or toxic characteristic hazardous waste and contained listed hazardous waste codes at concentrations below Land Disposal Restrictions (LDR) treatment standards was classified as MW. All MW, unless otherwise noted, was transported to and disposed in the Area 5 Pit 3 MW disposal cell on January 9-10, 2002. Information regarding this waste stream is presented in Appendix B, Mixed Waste, Waste Profile LRY5MWFY01020.

3.3.4.1 Office Bench

The office bench was previously determined to contain acetone (F003) and toluene (F005) below the RCRA Section 268.40 UTS for Hazardous Waste, and was radiologically impacted. Site characterization data were used as process knowledge to complete a waste profile and classify this waste as MW that met the LDR. The waste was sized and contained in a 4x8 ft wooden box along with other MW. The waste was stored in the waste accumulation area until disposal in the Area 5 Pit 3 MW disposal cell.

3.3.4.2 Decontamination Bay Air Filters

The decontamination bay air filters were previously consumed during site characterization activities. No filters were observed as being present in Building 3126 at the time of project start-up.

3.3.4.3 East Decon Bay Concrete and Decon Bay Floor Concrete

The east decontamination pad and the decontamination bay floor concrete were previously determined to contain acetone (F003) and benzene (F005) below the RCRA Section 268.40 UTS for hazardous waste, TPH greater than 100 mg/kg, and to be radiologically impacted. Site characterization data were used as process knowledge to classify this material as MW that met the LDRs. Impacted concrete surfaces were removed by shot blast, electric chisels, or hoe-rams (hydraulic hammers). Contaminated material was accumulated in B-25 boxes. The waste was stored in the RMA until disposal in the Area 5 Pit 3 MW disposal cell.

3.3.4.4 Compressor Concrete Pad

The compressor concrete pad was previously determined to contain toxic levels of lead on the concrete surface (D008). As noted in Section 2.2, Deviations From CAP As Approved, the entire concrete pad was sized to lower the average lead concentrations to below the PRGs. Surface radiological survey data were used to determine that the concrete pad was not radiologically impacted above the "sum of the fractions" limit. Process knowledge and radiological survey data were used to complete a waste profile classifying the material as construction waste. The waste was disposed in the U10c Industrial Landfill.

3.3.4.5 Compressor Room Drain Sediments

The compressor room drain sediments were previously consumed during site characterization sampling performed by the IT Corporation. After samples were collected, the drains were also grouted by IT. Surface radiological surveys performed by BN did not indicate any impacted material as being present. No action was taken for this waste stream.

3.3.4.6 Railroad Ties South of Building 3126

The first railroad tie south of Building 3126 was previously determined to be contaminated with several "F Listed" wastes and radionuclides above the Class III landfill standards. Site characterization data were used as process knowledge to re-classify this material as MW that met LDRs. However, surface radiologic surveys indicated that more than just the first railroad tie was contaminated. Therefore, all railroad ties were removed and disposed up to the fence line (Figure 7). This material was bulk-wrapped in plastic, placed in a transportainer, and stored in the RMA pending receipt of an approved waste profile. The waste was disposed in the Area 5, Pit 3 MW disposal cell.

3.3.4.7 Southeast Decon Bay Door

The wood from the southeast decontamination bay door contained acetone (F003) below the RCRA Section 268.40 UTS for hazardous waste, cadmium greater than the UTS limit, TPH above 100 mg/kg, and volumetric radionuclide contamination greater than the "sum of the fractions" limit. This material was sized and accumulated in a B-25 box. The door was and sampled by randomly drilling approximately 100 holes across the door. Wood shavings were collected and analyzed for RCRA TCLP Metals. Analytical results were used to classify this material as MW that met the LDRs (Appendix B, Mixed Waste Profile). The waste was disposed in the Area 5 Pit 3 MW disposal cell without treatment.

3.3.4.8 South and Northwest Decon Bay Door

The insulation from the south decontamination bay door contained carbon disulfide (F003) and toxic characteristic cadmium (D006) levels, and was impacted with radionuclides less than the "sum of the fractions" limit. Site characterization and analytical data were used as process knowledge to re-classify this waste as a non-RCRA characteristic MW that met the LDRs. The material was sized, placed in 209-L (55-gal) drums, and accumulated in the waste accumulation area. The waste was disposed in the Area 5 Pit 3 MW disposal cell without treatment.

The insulation from the northwest decontamination bay door contained toxic characteristic cadmium (D006) levels, and was impacted with radionuclides less than the "sum of the

fractions" limit. Site characterization data were used as process knowledge to classify this material as MW. This material was sized and accumulated in a B-25 box. The waste was disposed in the Area 5 Pit 3 MW disposal cell.

3.3.4.9 Northwest Decon Bay Door

The wood from the northwest decontamination bay door contained TPH greater than 100 mg/kg and was impacted with radionuclides greater than the "sum of the fractions" release limit. Site characterization data were used as process knowledge to classify this waste as MW that met LDRs. The material was sized and accumulated in a B-25 box with other LLW impacted with TPH. The waste was disposed in the Area 5 Pit 3 MW disposal cell.

3.3.4.10 Lead

Approximately 138 kg (308 lbs) of radiologically impacted lead waste consisting of lead-bricks and pipe collars was generated during closure activities. The waste was collected in a 209-L (55-gal) steel drum and stored in the RMA. The waste was classified using process knowledge as MW requiring treatment prior to disposal. The waste was then transported to and stored on the Area 5 Transuranic pad. The waste will be stored until either onsite or offsite treatment and disposal alternatives are identified. The NDEP will be informed of the actual shipment date as soon as the waste leaves the "Haz Pad".

3.3.5 Radioactive PCB Waste

3.3.5.1 Loft Floor

The wood from the loft floor was previously determined to contain acetone (F003), xylene (F003), and toluene (F005) below the RCRA Section 268.48 UTS for hazardous wastes, and TSCA regulated PCBs. The impacted area was examined but no evidence of a spill was found and no radiological impact was observed. Observations and analytical data were used to conclude that the impacted area originated from dried PCB paint applied to the floor. In November 2001, the NDEP granted permission for this waste to be managed as PCB bulk product waste, for which TSCA limits do not apply. This waste was classified as bulk-product waste that met the LDRs. The waste was disposed in the Area 9 U10C Industrial Landfill. Information regarding this waste stream is presented in Appendix D, Area 9 U10C Industrial Landfill Load Verification Forms.

3.3.5.2 North Loft Wall Insulation

The north loft wall insulation was previously determined to contain TSCA regulated PCBs and radionuclides less than the "sum of the fractions" limit thus requiring off-site treatment for PCBs. However, analytical results did not indicate any remaining contamination. Site characterization and analytical data were used to re-classify this waste as MW that meet the LDRs. The waste was disposed in the Area 3 Bulk RWMS in December 2001. Information regarding this waste stream is presented in Appendix D, Area 9 U10C Industrial Landfill Load Verification Forms.

3.3.5.3 Turbulator Vent Stack Filter

The turbulator vent stack filter was initially analyzed by Paragon Laboratories of Fort Collins, Colorado during site characterization activities performed by IT. The filter was determined to contain PCBs, lead, and radionuclides greater than the "sum of the fractions" limit. The residual

sample was returned from the laboratory and stored on the Area 5 Transuranic (TRU) Pad. This sample weighed approximately one pound. It was later determined that analytical data were insufficient to determine treatability, so the remaining sample was sent to NFT Laboratories in Oak Ridge, Tennessee for subsequent analysis where the sample was totally consumed during analysis. A "Certificate of Destruction" letter is included in Appendix D.

3.3.6 LLW

Approximately 68,762 kg (152,805 lbs) or 70 m³ (91.5 yd³) of LLW was generated during closure activities (Table 4). The waste stream consisted of dry contaminated soil and sampling and hotline compactible trash. Process knowledge and site characterization data were used to classify the waste as nonhazardous, not TSCA regulated PCBs, and radiologically impacted at concentrations greater than the "sum of the fractions" limit. The waste was managed as LLW. The bulk of the waste consisted of excavated soils and sediments but also included some equipment, piping, shotblast waste, and associated demolition debris. This waste was accumulated in B-25 boxes and shipped to the Area 3 Bulk RWMS in December 2001. Information regarding this waste stream is presented in Appendix B, LLW, Waste Profile LRYFY01022.

3.3.6.1 Demolition Debris and Equipment

Demolition debris and equipment, including piping, structural members, and miscellaneous materials with radionuclide constituents that exceeded the "sum of the fractions" limits, were managed as bulk LLW. Surface radiological survey data were used to complete the waste profiles. This waste was accumulated in B-25 boxes interspersed with soil, PPE, and other derived waste. The waste was stored in the RMA and later shipped to the Area 5 Pit 3 RWMS in December 2001.

3.3.6.2 Decontamination Pad Concrete

The decontamination pad concrete was radiologically surveyed and classified as LLW being impacted with a "sum of the fractions" greater than one and was not a RCRA waste. Shotblast waste was stored in the RMA. The waste was shipped to the Area 5 Pit 3 RWMS in December 2001.

3.3.6.3 Soils

Radiologically impacted soils with a "sum of the fractions" greater than one were excavated from the northeast area of Building 3126, the perimeter of the decontamination building, and from around the perimeter of the outside east decontamination pad (Figure 7). This material was accumulated and stored in the RMA. Site characterization data was used as process knowledge to determine that the soil was not hazardous waste and not TSCA regulated. This material was shipped to the Area 5 RWMS for disposal in December 2001. Radiologic survey data were used to determine that impacted soils with a "sum of the fractions" less than one met disposal requirements as specified in the Area 9 U-10c Industrial Landfill Permit. This material was shipped to the Area 9 U-10c Industrial Landfill for disposal in December 2001.

4.0 CLOSURE VERIFICATION

4.1 VERIFICATION SAMPLES

Verification samples were collected after corrective actions were performed to verify removal of impacted material (Tables 2 and 3; Figures 8 and 9). Appendix C presents the Form I data summaries; complete data packages are available upon request. Verification samples were collected using decontaminated stainless-steel scoops and placed into laboratory-supplied containers. Samples were immediately logged on Chain of Custody forms and chilled to 4 degrees celcius (°C). Samples were then transferred to the BN Analytical Services Group under strict Chain of Custody procedures.

Samples were identified using the sample-naming convention used in previous investigations with the additional suffix "-V1" (25400546-V1). Samples begin with sample number "25400546-V1" and end with sample number "25400586-V1". If one sample exceeded an action level, further excavation was performed and a second sample was collected. For example, when verification sample "25400548-V1" was determined to exceed the PRGs for PCBs, additional soil was excavated and sample "25400548-V2" was collected and analyzed.

Relatively impervious surfaces, such as concrete, that were radiologically contaminated were remediated to radiological activity release levels as indicated in Table 4-2 of the RadCon Manual (DOE/NV, 1999b) (Table 1). Porous materials, such as wood and soil, that were radiologically contaminated or potentially contaminated were removed or remediated to "sum of the fractions" levels.

4.1.1 Concrete Foundation

The concrete foundation was sampled at seven locations after the uppermost impacted surface was removed and radiological surveys no longer indicated remaining "hot spots" (Table 3).

- Six samples were analyzed for VOCs. Four locations showed acetone concentrations above the detection limits. ROTC #3 specified a modification to the CAP to allow EPA Region 9 PRGs for acetone in soil to be used as the acetone action levels for the concrete pad (Appendix E).
- Two samples were analyzed for PCBs; both locations were reported as non-detects.
- Two samples were analyzed for TPH. Sample location 25400549-V1, east of the center drain, was reported as 840 mg/kg. Sample location 25400563-V1 was reported as 54.0 mg/kg. While the NDEP action level for TPH is 100 mg/kg, it is only applicable to soil. These samples were collected to meet the requirements specified in the CAP (BN, 2000a). No regulatory drivers exist that require any additional removal of concrete from the area.

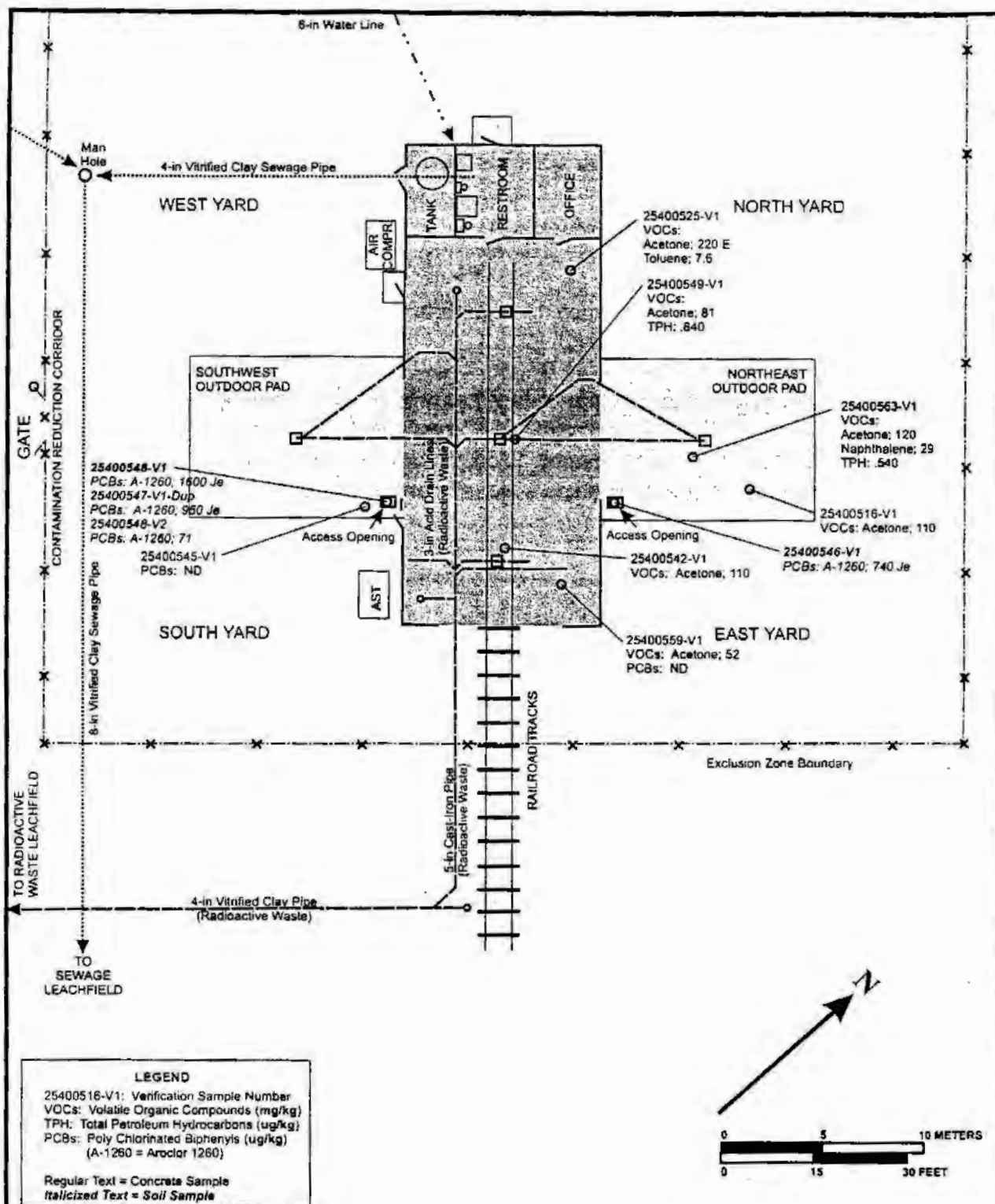


FIGURE 8
VERIFICATION SAMPLE LOCATIONS AND
ANALYTICAL RESULTS: ORGANICS
AREA 25 R-MAD DECONTAMINATION FACILITY

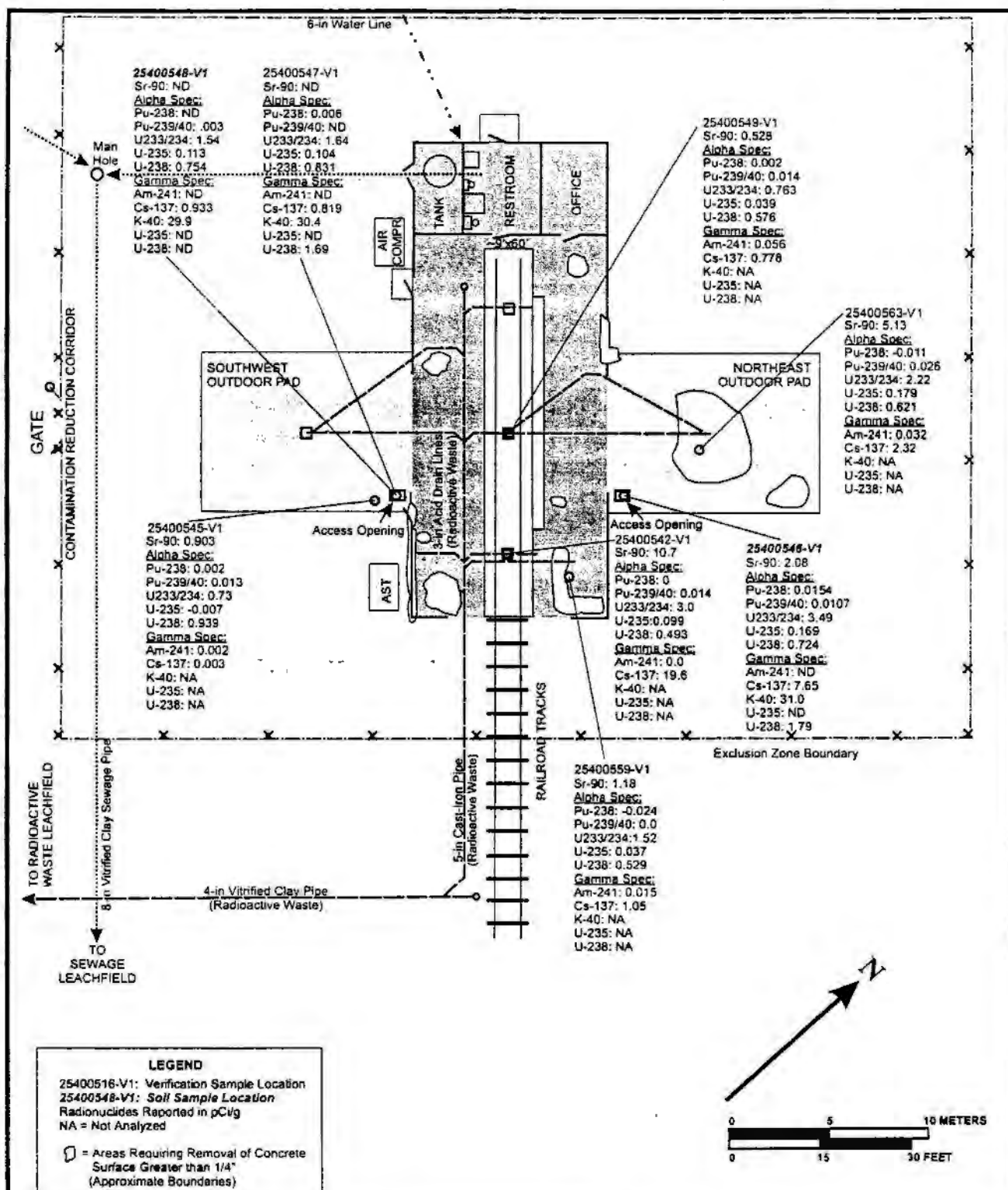


FIGURE 9
VERIFICATION SAMPLE LOCATIONS AND
ANALYTICAL RESULTS: RADIOISOTOPES
AREA 25 R-MAD DECONTAMINATION FACILITY

- Five sample locations were analyzed for radioisotopes. The analytical data was not used to determine if remediation was complete. Only surface contamination limits from Table 4-2 of the RadCon Manual are applicable.

4.1.2 Sediment and Soils

4.1.2.1 Sediment

The sediment beneath the northeast and southwest pad openings was excavated to approximately 0.9 m (3 ft below ground surface [bgs]) and 0.6 m (2 ft bgs), respectively. The locations were then radiologically surveyed and sampled after surveys no longer indicated remaining "hot spots". Two verification samples (25400548-V1, 25400546-V1) were collected and analyzed for PCBs and radioisotopes (Table 3, Figure 8).

- Both locations were analyzed for PCBs; concentrations were below the PRGs at location 25400546-V1. Location 25400548-V1 (SW pad) showed PCB concentrations (Aroclor 1260; 1,600 micrograms per kilogram) as exceeding the PRGs. An additional foot of soil was excavated and the location resampled (25400548-V2). Results showed no PCB's above the PRGs.
- Both locations were analyzed for radioisotopes. Neither location exceeded the sum of fractions level for radionuclides.

4.1.2.2 Soils

As specified in ROTC #1, samples were collected from soil excavation areas and analyzed for Cesium-137 (Cs-137) using gamma spectrometry (Table 2, Figure 7). Individual samples could not exceed 21.0 pCi/g, with the average of all samples not to exceed 7 pCi/g. Samples were field screened for Cs-137 using ISOCS analysis; data indicated that no sample exceeded 21.0 pCi/g (Table 2). Samples were transferred to an off-site laboratory and analyzed by gamma spectrometry. Analytical results showed one sample exceeded 21.0 pCi/g of Cs-137 (25400584-V1 [33.1 pCi/g]). The average concentration of all samples was 2.1 pCi/g, well below the 7.0 pCi/g limit.

Since ISOCS field screening data indicated that no samples were above 21.0 pCi/g, a recount of sample 25400584-V1 was requested. The sample was divided into 8, 40 milliliter (mL) aliquots and recounted (Appendix C). The average concentration of Cs-137 for seven of the eight aliquots was 1.79 pCi/g, with the low concentration of 1.34 pCi/g and a high concentration of 3.10 pCi/g. The eighth aliquot reported a concentration of 169.0 pCi/g. The mass-weighted average concentration of Cs-137 for the 8 aliquots, based upon the mass submitted to the laboratory, is 19.81 pCi/g. The high concentration of the eighth aliquot is likely due to a discrete fuel particle. This fuel particle was likely shielded by the surrounding matrix during the initial count. The average concentration of all samples, based upon the recount of sample 25400584-V1, is 1.5 pCi/g, 0.6 pCi/g less than the average for the initial sample.

If more than one aliquot had an elevated count, there would be reason to believe that more impacted material remained on-site. However, due to the fact that only one of eight aliquots reported an elevated value, and that the duplicate sample showed no activity, no evidence exists to suggest that the remediation goals for the site have not been met.

4.2 DATA QUALITY ASSESSMENT

Accurate and defensible analytical data were collected to verify that closure activities met the project-specific requirements as outlined in the CAP (DOE-NV, 2000a). Closure activities consisted of removing sediment, soil, building materials, and concrete surfaces that were above action levels for organic compounds and radioisotopes. Verification consisted of performing radiological surveys and laboratory analysis to confirm that the remaining concrete foundation and soils were below surface contamination release levels. Seven concrete and three sediment samples were collected and analyzed for organic compounds and radioisotopes of interest (Table 3). In addition, 15 samples were collected and analyzed using gamma spectrometry and ISOCs (Table 2). Samples were collected, cooled to 4° C, logged onto the Chain of Custody, and transported to the BN Analytical Services Group under strict chain-of-custody procedures. Samples were analyzed by EPA-approved laboratories. Analytical results were validated at the laboratory using stringent quality control (QC) procedures. All sample data were also internally validated by BN personnel using Tier II validation procedures. No anomalies were discovered in the data.

QC samples were collected and analyzed to aid in determining the validity of regular sample results. These samples included two blind duplicates, one matrix spike/matrix spike duplicate, one rinse blank, and one trip blank for each VOC shipment. QC data are not presented with the analytical results. These data are maintained in the BN ER files and are available upon request.

4.3 USE RESTRICTIONS

Site closure will allow unrestricted access and use of the site above the ground surface, but will include use restrictions to prohibit activities into and beneath the concrete foundation, surrounding soils, and grouted drain lines contained in CAU 262. Future use of any land related to this CAU is restricted from any intrusive activity unless concurrence is obtained in advance and in writing from NDEP. Such intrusive activities would alter and/or modify the established containment controls as approved by NDEP.

The site shall be monitored on an annual basis to ensure that posted warning signs stating "Underground Radioactive Material" remain intact and that the text does not become unreadable due to fading from exposure to ultraviolet radiation. Refer to Appendix F for additional use restriction information.

Based upon the completion of site activities, it is requested that a notice of completion be provided by the NDEP for CAU 254, R-MAD Decontamination Facility, Building 3126. Upon closure approval, CAU 254 will be promoted from Appendix III to Appendix IV of the FFACO, Closed Corrective Action Units.

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5.0 CONCLUSIONS AND RECOMMENDATIONS

All cleanup activities specified in the Corrective Action Plan for CAU 254, Area 25 R-MAD Decontamination Facility (DOE/NV, 2001) were successfully performed. All cleanup activities are documented in this Closure Report. Any deviations from the approved CAP (DOE/NV, 2001) were documented in Section 2.2, DEVIATIONS FROM CAP AS APPROVED.

Based upon the analytical data presented in Appendix C and the radiological survey data presented in Figures 5 and 6, all site-specific cleanup goals, as established in the CAP (DOE/NV, 2001) have been met. The National Nuclear Security Administration (NNSA) hereby requests that the site be closed in accordance with the FFACO Agreement of 1996. The NNSA hereby requests that CAU 254 be moved from Appendix III, Corrective Action Investigations/Corrective Actions, to Appendix IV, Closed Corrective Action Units.

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6.0 REFERENCES

- Bechtel Nevada, 2001. "CAU-254, Area 25, R-MAD Decontamination Facility, Deactivation and Decommissioning Waste Management Plan." Rev 0.
- Bechtel Nevada, 2001. Sampling and Analysis Plan, Nevada Test Site, CAU 254, Area 25 R-MAD Decontamination Facility, May 2001 Rev 0.
- Bechtel Nevada, 2000a. "Radioactive Waste Tracking, Handling, and Management at the NTS," Rev. 2, Organization Procedure OP-2151.304, Las Vegas, NV.
- Bechtel Nevada, 2000. Waste Management Plan for Corrective Action Unit 254, Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada,
- Bechtel Nevada, 2000b. Record of Communication between Curtis Obi (BN) and Jeff Johnson (IT Corporation) regarding sampling and grouting of acid waste floor drains (e-mail), Las Vegas, NV.
- Federal Facility Agreement and Consent Order, 1996. Agreed to by the Nevada Division of Environmental Protection, the U.S. Department of Energy, and the U.S. Department of Defense.
- U.S. Department of Energy, Nevada Operations Office, 1997. Permit for Area 9 U10c Disposal Site Class III Industrial Solid Waste Disposal Site, Permit SW/13/097/03 (revised June 2000), Las Vegas, NV.
- U.S. Department of Energy, Nevada Operations Office, 1999a. Corrective Action Investigation Plan for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, DOE/NV--557, Las Vegas, NV.
- U.S. Department of Energy, Nevada Operations Office, 1999b. NV/YMP Radiological Control Manual, DOE/NV/11718--079, Las Vegas, NV.
- U.S. Department of Energy, Nevada Operations Office, 2000a. Corrective Action Plan for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, DOE/NV--678, Las Vegas, NV.
- U.S. Department of Energy, Nevada Operations Office, 2000b. Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, DOE/NV--619, Las Vegas, NV.
- U.S. Department of Energy, Nevada Operations Office, 2000c. Addendum to Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, DOE/NVB619-ADD, Las Vegas, NV.
- U.S. Department of Energy, Nevada Operations Office, 2001. Waste Management Plan for CAU-254, Area 25, R-MAD Decontamination Facility, Nevada Test Site, Nevada.

APPENDIX A
AS-BUILT SITE DRAWING

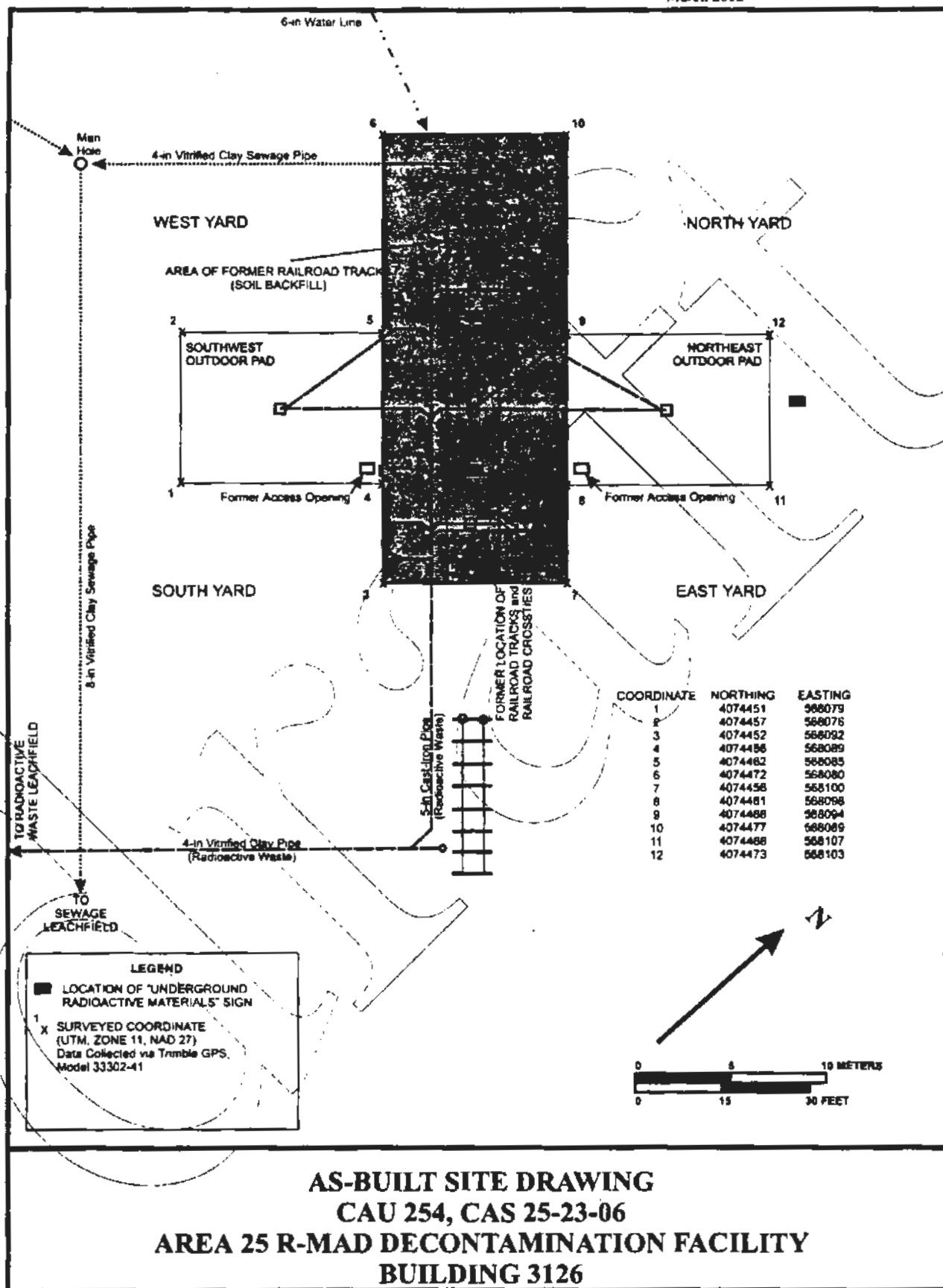
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APPENDIX A

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APPENDIX B
WASTE PROFILES

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APPENDIX B

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Low-level Waste (LLW) Profile	B-41
Mixed Waste (MW) Profile	B-54

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**ASBESTIFORM LLW
WASTE PROFILE
(LRY5MWFY01021)**

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Waste Characterization Summary
Waste Stream LRY5MWFY01021
Revision 0

1.0 Origin of the Waste

This waste stream consists of remediation waste from Corrective Action Unit 254 (CAU 254), Area 25 Reactor-Maintenance Assembly and Disassembly (R-MAD) Decontamination Facility. The facility was used for decontamination of test-car hardware and tooling used in 1963 through 1973 as part of the Nuclear Rocket Development Station program. Subsequently the facility was used to decontaminate a military tank in the early 1980's. Contamination of the interior of the decontamination facility resulted from decontamination fluids on the inside and exterior concrete pads. Overspray of decontamination fluids contaminated the asbestiform insulated pipe elbows and joints.

The waste generation processes include hot line operations and friable asbestiform insulated pipe elbow and joint removal. These materials were removed by asbestos trained workers. The elbows and joints were wetted with a water and surfactant mixture, wrapped in 6-mil plastic and taped before removal. Following removal, the elbows and joints were enclosed in 6-mil plastic bags and packed in 55-gallon drums.

2.0 Quantity of Waste

The quantity of waste for FY2002 is approximately 1 cubic meters.

3.0 Waste Description

The waste stream consists of hotline compactible trash (e.g., personal protection equipment [PPE], tape, kimwipes, paper, plastic, plastic bags, etc.) ACM insulated pipe elbows and joints.

4.0 Waste Characterization Determination

4.1 Hazardous Waste Constituents

Process knowledge (inc. sampling and analysis data) resulting from the corrective action investigation is used to characterize material for this waste stream. The U.S. Department of Energy Nevada Operations Office (DOE/NV) report *DOE/NV-619, Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, June 2000* (CADD) contains analytical results of the corrective action investigation.

The ACM insulated pipe elbows and joints were not sampled for RCRA constituents to prevent unnecessary exposure of sampling worker to asbestos fibers. A BN IH subject matter expert made the friable asbestos determination. Analytical results from associated building debris (wood, concrete and non-ACM insulation) are used to determine the waste characteristics.

The results of this investigation are summarized in the Executive Summary on pages ES-2 through ES-4 of the CADD. Analytical data for building materials (debris) are found in Appendix D of the CADD. Tier I, II and III data evaluation were completed by IT Corp. and are documented in Appendix A of the CADD.

The analytical data from the CADD were used to characterize each type of waste material sampled (e.g., concrete, wood, and insulation) for this waste stream. The average concentrations for potential constituents of concern were determined for each type of material (see Table 1). The following paragraphs summarize the results of the hazardous waste determination for this waste stream.

Toxicity Characteristic Waste

Total metals, total volatile organic compounds (VOCs), and total semi-volatile organic compounds (SVOCs) data found in Appendix A of the CADD are used primarily for toxicity characteristic determinations of the building debris.

The analytical results from buildings samples presented in the CADD were well below toxicity characteristic concentrations established in 40 CFR 261.24 for all materials with the exception of cadmium. The TCLP results for cadmium from a single wood sample taken from the south decon bay door was 4.7 mg/L (the results from the other wood samples were well below 1 mg/L). Two insulation samples (one sample from the south decon bay door and one from the northwest decon bay door) had reported calculated TCLP results of 0.95 mg/L (just below the regulatory limit of 1.0 mg/L). Since these were the only samples that indicated toxicity concentrations greater than or close to regulatory limits, confirmatory samples of associated non-ACM material were collected and analyzed for TCLP metals.

Confirmatory samples of wood and insulation were taken in accordance with the *Sampling and Analysis Plan, Nevada Test Site, CAU 254, Area 25 R-MAD Decontamination Facility*, Rev. 0, May 2001. The confirmatory samples consisted of a composite sample of wood taken from the south decon bay door and two composite insulation samples, one from the south decon bay door and one from the northwest decon bay door. These confirmatory samples were collected from the material and locations that indicated the highest cadmium concentrations from the site investigation results. The TCLP cadmium analytical results for the wood sample from the south decon bay door was 0.0105 mg/L, while the TCLP cadmium results from the insulation samples were 0.407 and 0.117 mg/L (see Table 1). The results of these samples were used to generate the mean and upper confidence limit for TCLP metals presented in the NTSWAC Waste Profile # LRY5MWFY01020 and associated MEF # F01020.

Since the confirmatory sample results from associated, non-ACM materials were below the RCRA toxicity concentration limit for cadmium, and all other toxicity constituent concentrations were well below the toxicity concentration limits in the site investigation samples, the waste stream does not exhibit the toxicity characteristic.

Listed Waste

The waste generator (BN Environmental Remediation) documented the anticipated listed waste codes in the NNSA/NV *Corrective Action Plan for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, Rev0, December 2000 (DOE/NV-678)* section 2.3.6 Mixed Waste. These codes include acetone (F003), carbon disulfide (F005), ethylbenzene (F003), toluene (F005), 1,1,1-trichloroethane (F002), trichloroethene (F002), and xylenes (F003).

In accordance with the *Technical Guidance Memorandum, September 7, 1999, Interpretation of Hazardous Waste Regulations as They Apply to Potential Solvent Contaminated Waste from CAU 254 (RMAD Decon Facility)*, the following compounds are the hazardous waste codes to be assigned:

Carbon Tetrachloride	F001
Trichloroethylene	F001
1,1,1-Trichloroethylene	F001
1,1,2-Trichloro-1,2,2,2-Trifluoroethane	F002

The *Corrective Action Plan for Corrective Action Unit 254: Decontamination Facility, Nevada Test Site, Nevada, December 2000 (DOE/NV-678 (CAP))* section 2.3.6, Mixed Waste, lists acetone (F003), carbon disulfide (F005), ethylbenzene (F003), toluene (F005), 1,1,1-trichloroethane (F002), trichloroethene (F002), and xylene (F003) as listed waste. The F002 listed code compounds are also listed as F001 codes. The F001 code is used in this waste profile (LRY5MNFY01020).

Not all of the listed codes discussed above are detected in each type of building materials removed from the Decontamination Facility. All listed code compounds contained in building debris for this waste stream are at concentrations below the 40 CRF 268.40 treatment standards. The CADD site investigation analytical results are summarized in Table 1.

The first railroad tie outside and south of the decon bay door contains the following organic compounds (CADD, Appendix D) and waste codes from the above two lists:

Carbon Tetrachloride	F001
Trichloroethylene (Trichloroethene)	F001
1,1,1-Trichloroethane	F001
Acetone	F003
Ethylbenzene	F003

M+P-Xylene	F003
O-Xylene	F003
Carbon Disulfide	F005
Toluene	F003

Benzene is reported in the CADD from one concrete sample taken from the east decon samples. This constituent is assumed to be an F005 code.

Not all of the building materials (debris) have each of these waste codes. Separation of the building debris into several waste streams is not practical. The reported concentrations of all of these organic compounds in the CADD, Appendix D, are below the 40 CRF 268.40 Treatment Standards for Hazardous Waste and are not Land Disposal Restricted. The waste codes assigned to the LRY5MWFY01020 waste stream include F001, F003 and F005.

4.2 Radionuclide Constituents

Process knowledge from an extensive corrective action investigation is used to characterize material for this waste stream. The CAU 254 CADD Appendix D contains the results (strontium 90, gamma spectrometry, isotopic plutonium and isotopic uranium analytical data) of the corrective action investigation. The reported radionuclides include Cs-137, Sr-90, NB-94, Eu-154, U-234, U-235, U-238 and Pu-239. A summary of the site investigation process knowledge is found in Table 2.

The transite wallboard and the friable asbestos covered pipe elbows and joints were not sampled during the site investigation or during waste characterization. Sampling of this waste material may have resulted in generation of asbestos fibers to the working environment and unnecessary exposure of workers to asbestos fiber. The transite wallboard and friable asbestos insulated pipe elbows and joints are on vertical interior surfaces of the decontamination facility. Overspray from decontamination activities are expected to result in higher concentration of contaminants in the concrete floor than the interior wall and pipe surfaces. The analytical results from the other building materials are used to characterize the materials.

Results shown in Table 2 are used as process knowledge to calculate the radionuclide activities reported in profile #LRY5MWFY01020.

4.3 Free Liquids

The material consists of dry building debris and compactible hotline trash that does not contain free liquids. The waste was packaged in accordance with BN organization procedure, OP-2151.304, *Radioactive Waste Tracking, Handling, and Management at the NTS* (OP-2151.304) assuring no free liquids are contained in this waste. As waste is packaged, it is visually inspected for free liquids.

4.4 Fine Particulates

The material consists of dry building debris and compactible hotline trash that does not containing fine particulates. The waste was packaged in accordance with BN organization procedure, *OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS* (OP-2151.304) assuring no free liquids are contained in this waste. As waste is packaged, it is visually inspected for fine particulate.

4.5 Gases, Etiologic Agents, Chelating Agents, Explosives, Pyrophorics, Beryllium and PCBs

Process knowledge for this waste stream generated during site investigation (as documented in the CADD) does not indicate the presence of any of these materials. Also, the waste was packaged in accordance with BN organization procedure, *OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS* (OP-2151.304) assuring none of the above were included in with this waste.

Nevada Test Site Waste Profile, Revision 3, 12/2000

A. Generator Information

1. WCO Phillip Ralphs Phone 295-5685 FAX 295-6569
2. Technical Contact Harry Perry Phone 295-0685 FAX 295-4815
3. DOE Contact Kenneth Small Phone 295-1933 FAX 295-1153
4. Facility Name Bechtel Nevada
Address P.O. Box 98521
City Las Vegas State NV Zip 89193-8521
5. EPA Identification Number NV3890090001

B. General Waste Stream Information

1. Waste Stream Identification Number LRV5MWFY01021
Profile Revision Number 0 Profile Revision Date December 12, 2001
2. Title of Waste Stream Area 25, R-MAD Decontamination Facility - Asbestiform Mixed Low-Level Waste
3. Waste Category ☐ Low-Level ☒ Mixed Low-Level (Generated within Nevada only)
☐ "Classified Waste" ☐ 11(e)2 By-product Material (Small Quantities)
☐ CERCLA waste ☒ Asbestiform Low-Level Waste

4. Generating Process Description

This waste stream is a result of remediation of Corrective Action Unit 254 (CAU 254), Area 25 Reactor-Maintenance Assembly and Disassembly (R-MAD) Decontamination Facility. This facility was used for the decontamination of test-car hardware and tooling used in 1963 through 1973 as part of the Nuclear Rocket Development Station program. Subsequently the facility was used to decontaminate a military tank in the early 1980s. Specific processes from which this waste stream are generated include removal of contaminated material from the decontamination building and the exterior decontamination pads, and hotline and CA operations. The waste stream consists of compactible trash (including, personal protection equipment [PPE], tape, kimwipes, paper, plastic, plastic bags, etc.), and building debris (including, asbestiform insulated pipe elbows and joints).

☐ Yes ☒ No Process description continuation page attached?

☐ Yes ☒ No Flow diagram attached?

5. Estimated Rate of Generation ☒ One Time Only 1 m³
☐ Ongoing _____ m³/yr

6. Reasons for Submittal (specify one)

☒ New Waste Stream

☐ Modification to Waste Stream

7. ☐ Yes ☒ No Does this waste stream require a WAC deviation? Attach information.

C. Physical Properties

1. Waste Form Description ☒ Solid ☐ Solidified ☐ Encapsulated ☐ Sludge
☐ Powder/Dust ☐ Sealed Source ☐ Absorbed Liquid ☐ Other

2. List Waste Stream Components

Estimated Percent by :

☒ Volume ☐ Weight

Asbestiform pipe elbows and joints

90

Compactible trash

10

☐ Yes ☒ No Component continuation page attached?

3. The final waste form must comply with the following criteria as defined in the WAC. List documentation that demonstrates WAC compliance for each.

Free Liquids	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Particulates	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Gases	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Etiologic Agents	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Chelating Agents	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Polychlorinated Biphenyls	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Explosives	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Pyrophorics	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Asbestiform Low-Level Waste	<u>OP-2151.304 / OP-2151.301 and associated MEF EPA REG worksheets</u>
Radioactive Animal Carcasses	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Beryllium Dust	<u>OP-2151.304 / OP-2151.301 and Process Knowledge</u>
DOE Equivalent Greater-Than-Class C Packages	<u>OP-2151.304 / OP-2151.301 and associated MEF RAD worksheets</u>
Other	<u>N/A</u>

D. RCRA Characterization

1. RCRA characterization by:
Check all that apply.

- ☒ Process Knowledge
☐ Sampling and Analysis for complete characterization
☐ Confirmatory Sampling and Analysis

List documents that control RCRA determinations.

OP-2151.301 with associated MEF Hazardous Waste Worksheet; Process Knowledge contained in Corrective Action Decision Document for Corrective Action Unit 254; Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada (DOE/NV-619); and Waste Stream No. LRY5MWFY01020, Area 25, R-MAD Decontamination Facility Mixed Waste and associated characterization documentation in MEF #FY01020.

2. If sampling and analysis was used, attach Table B-1 or an equivalent sample result summary that includes analytical results, upper confidence limits, and explanations of anomalies for all analytes analyzed. Include any state-specific analyte results.

3. ☒ Yes ☐ No Was the waste listed or characteristically hazardous as generated? EPA Code(s): F001, F003, F005

4. Does the final waste form exhibit any characteristics of hazardous waste as defined in Title 40 CFR 261?

- | | | |
|------------------------------|--|--------------|
| ☐ Yes | ☒ No | Ignitability |
| ☐ Yes | ☒ No | Corrosivity |
| ☐ Yes | ☒ No | Reactivity |
| ☐ Yes | ☒ No | Toxicity |
5. ☒ Yes ☐ No Is the final waste form listed as defined in Title 40 CFR 261? EPA Code(s): F001, F003, F005
6. ☐ Yes ☒ No Is the waste hazardous per state-of-generation regulations? If yes, identify hazardous components and state regulations.
7. ☐ Yes ☒ No Has the waste been treated? Attach information which verifies WAC compliance.
If yes, was the waste treated after August 24, 1998?
8. ☒ Yes ☐ No Is the final waste form mixed waste? If yes, attach information which verifies LDR compliance. Waste met treatment standards at the point of generation. Therefore, no further treatment is necessary to meet LDR compliance.

E. Radiological Properties

1. Radiological characterization by (check all that apply)

- ☒ Process Knowledge ☐ Sampling & Analysis ☐ Materials Control & Accountability
☐ Direct Measurement ☐ Gross Radiation Measurement ☐ Scaling Factors
☐ Other _____

2. Reference documents that describe the radiological characterization process.

Associated MFE Radioactive Waste Worksheet; Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, DOE/NV-619, June 2000 (CADD).

3. Reference documents that describe the method of determining package activity.

Associated MFE Radioactive Waste Worksheet

4. List reportable radionuclides as defined in the WAC.

Radionuclide	Activity Range (Bq/m ³)	Activity Representative of Final Waste Form (Bq/m ³)
<u>Cs-137</u>	<u>4.68E+03</u> to <u>2.01E+07</u>	<u>4.43E+06</u>
<u>Sr-90</u>	<u>3.23E+04</u> to <u>2.67E+07</u>	<u>3.76E+06</u>
<u>U-234</u>	<u>3.47E+03</u> to <u>4.86E+06</u>	<u>9.01E+05</u>
<u>U-235</u>	<u>5.39E+03</u> to <u>1.20E+05</u>	<u>3.85E+04</u>
<u>U-238</u>	<u>3.51E+03</u> to <u>1.16E+05</u>	<u>3.31E+04</u>
<u>Pu-239</u>	<u>9.84E+02</u> to <u>3.03E+04</u>	<u>6.89E+03</u>
<u>Eu-154</u>	<u>1.76E+04</u> to <u>2.90E+05</u>	<u>9.27E+04</u>
<u>Nb-94</u>	<u>2.69E+03</u> to <u>5.86E+04</u>	<u>1.58E+04</u>

Reportable Radionuclide continuation page attached? ☐ Yes ☒ No

5. ☐ Yes ☒ No Attach chemical form of radionuclide list if known. Page attached?
6. ☒ Yes ☐ No Does the waste contain any alpha-emitting transuranic radionuclides with a half-life greater than 5 years (Pu-241 or Cm-242)? If yes, list below.

Transuranic Nuclides	Activity Range (nCi/g)	Activity Representative of Final Waste Form (nCi/g)
<u>Pu-239</u>	<u>4.2E-03</u> to <u>1.3E-03</u>	<u>2.9E-04</u>
_____	_____ to _____	_____
_____	_____ to _____	_____

☐ Yes ☒ No Transuranic nuclide continuation page attached?

7. List documents that describe process(es) that controls TRU determinations and ensures TRU waste is not shipped for disposal. Associated MFE Radioactive Waste Worksheet.

8. ☒ Yes ☐ No Is enriched uranium present? If yes, provide enrichment of ²³⁵U by weightpercent 15 %. Provide maximum mass of ²³⁵U per package 0.05 g/package. Reference controlling documents.
See MEF # F01021 Radioactive Waste Worksheet and Calculations.

F. Packaging Description

1. ☒ Yes ☐ No Does the container meet each of the package criteria as defined in the WAC?

List documentation that demonstrates WAC compliance.

Waste will be packaged and prepared for shipment according to procedure OP-2151.304. Waste packages will be inspected prior to certification and shipment according to procedure L-A20.014 and L-A20.015

2. Container type(s) Waste material wrapped in 6-mil plastic, packed in 55-gal drums.

DOT Specification(s)/Description(s) Strong Tight

3. a. Non-bulk container external dimensions (drums, boxes) 24" x 35" -55gal drum

Does box meet 3,375 lb/ft³ strength test?

☐ Yes ☐ No

Weight Range NA kg to NA kg

- b. Bulk package external dimensions (cargo containers, roll-offs) NA

Weight Range NA kg to NA kg

- c. Bulk shipment dimensions NA

Weight Range NA kg to NA kg

4. Estimated radiation dose rate of disposal package:

Surface 0.0002 to 0.005 mSv/h

One meter 0.0002 to 0.005 mSv/h

5. Reference special handling procedures and ALARA documentation, if appropriate.

G. Signature

To the best of my knowledge, the information in this document and attachments is true and accurate. Willful and deliberate omissions have not been made. All known and suspected hazardous materials have been disclosed.

Harry A. Perry
Technical Contact Printed Name

/s/ Harry Perry

Signature

12/13/01
Date

Philip M. Rafols
WCO's Printed Name

/s/ Signature on file

Signature

12/13/01
Date

**Table B-1
Analytical Results**

	Statistical Mean (mg/L)	Upper Confidence Level		Statistical Mean (mg/L)	Upper Confidence Level
TCLP Metals:			TCLP Semivolatiles:		
Arsenic	0.036	0.046	o-Cresol	PK/CADD	
Barium	0.347	0.670	p-Cresol	PK/CADD	
Cadmium	0.178	0.589	m-Cresol	PK/CADD	
Chromium	0.0345	0.0927	Cresol	PK/CADD	
Lead	0.0535	0.0970	Dinitrotoluene	PK/CADD	
Mercury	0.00043	0.00124	Hexachlorobenzene	PK/CADD	
Selenium	0.0349	0.0349	Hexachloro-1,3-butadiene	PK/CADD	
Silver	0.0032	0.0040	Nitrobenzene	PK/CADD	
TCLP Volatiles:			Pentachlorophenol	PK/CADD	
Benzene	PK/CADD		2,4,5-Trichlorophenol	PK/CADD	
Carbon Tetrachloride	PK/CADD		2,4,6-Trichlorophenol	PK/CADD	
Chlorobenzene	PK/CADD		Hexachloroethane	PK/CADD	
Chloroform	PK/CADD		TCLP Pesticides and Herbicides:		
1,4-Dichlorobenzene	PK/CADD		Chlordane	PK/CADD	
1,2-Dichloroethane	PK/CADD		2,4 - D	PK/CADD	
Methyl ethyl ketone	PK/CADD		Endrin	PK/CADD	
Pyridine	PK/CADD		Heptachlor and Hydroxide	PK/CADD	
Tetrachloroethylene	PK/CADD		Lindane	PK/CADD	
Trichloroethylene	PK/CADD		Methoxychlor	PK/CADD	
Vinyl chloride	PK/CADD		Toxaphene	PK/CADD	
Dichloroethylene	PK/CADD		2,4,5 - TP (Silvex)	PK/CADD	

Note: See attached table, (CAU 254 CADD, Building Debris Analytical Results Summary , Waste Stream ID #'s LRY5MWFY01020 and LRY5MWFY01021) for a summary of CADD process knowledge information.

CAU 254 CADD
Building Debris
Analytical Results Summary
Waste Stream ID #'s LRY5MWFY01020 and LRY5MWFYD1021

		Concrete		Wood		Insulation		Railroad Tie	
		Statistical	Upper	Statistical	Upper	Statistical	Upper	Statistical	Upper
		Mean	Confidence	Mean	Confidence	Mean	Confidence	Mean	Confidence
		(mg/L)	Level	(mg/L)	Level	(mg/L)	Level	(mg/L)	Level
TCPLP Volatiles:									
Benzene	71-43-2	0.0058	(2)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Carbon Tetrachloride	56-23-5	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Chlorobenzene	108-90-7	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Chloroform	67-68-3	0.0094	0.036	(0.002)	(1)	(0.0003)	(1)	(0.00004)	(1)
1,4-Dichlorobenzene	106-46-7	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
1,2-Dichloroethane	107-06-2	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Methyl ethyl ketone	78-93-3	(0.001)	(1)	(0.01)	(1)	(0.01)	(1)	0.003	(2)
Pyridine	110-86-1	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Tetrachloroethylene	127-18-4	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)
Trichloroethylene	79-01-6	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	0.001	(2)
Vinyl chloride	75-01-4	(0.0003)	(1)	(0.01)	(1)	(0.01)	(1)	(0.0008)	(1)
Dichloroethylene	107-06-2	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.5)	(1)
TCPLP Semivolatiles:									
o-Cresol	95-48-7	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
p-Cresol	108-39-4	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	2.0	(2)
m-Cresol	106-44-5		(3)		(3)		(3)		(3)
Cresol	1319-77-3		(3)		(3)		(3)		(3)
2,4-Dinitrotoluene	121-14-2	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Hexachlorobenzene	118-74-1	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Hexachlorobutadiene	87-68-3	(0.0003)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Nitrobenzene	98-95-3	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Pentachlorophenol	87-66-5	(0.09)	(1)	(2.7)	(1)	(0.9)	(1)	(2.5)	(1)
2,4,5-Trichlorophenol	95-95-4	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(2.5)	(1)
2,4,6-Trichlorophenol	88-06-2	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Hexachloroethane	67-72-1	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
TCPLP Pesticides and Herbicides:									
Chlordane	57-74-9		(3)		(3)		(3)		(3)
2,4-D	94-75-7		(3)		(3)		(3)		(3)
Endrin	72-20-8		(3)		(3)		(3)		(3)
Heptachlor epoxide	76-44-8		(3)		(3)		(3)		(3)
Lindane	58-89-9		(3)		(3)		(3)		(3)
Methoxychlor	72-43-5		(3)		(3)		(3)		(3)
Toxaphene	8001-35-2		(3)		(3)		(3)		(3)
2,4,5-TP (Silvex)	93-72-1		(3)		(3)		(3)		(3)

Note 1: "Total and TCPLP Pesticides were not detected at concentrations above the minimum reporting limits in soil or building material sampled" during the site investigation CAU 254 CADD, Executive Summary, page EA-3.

Note 2: The analytical data shown in this table (mg/L) were determined by dividing the totals data in ug/kg by 20.

- (1) detection limit
(2) detected in only one sample
(3) not analyzed

B-17

January 15, 2002

Land Disposal Restrictions Notification and Restriction
Waste Stream # LRY5MWFY01021
Area 25, R-MAD Decontamination Facility - Mixed Waste

Generator Name: Bechtel Nevada for U.S. DOE			Manifest No.:	
Pursuant to 40 CFR §268.7(a), I hereby notify this shipment contains waste restricted under 40 CFR Part 268 Land Disposal Restrictions (LDR).				
WASTE NOTIFICATION				
Form Line No.	EPA Waste Codes	NWW	WW	Waste Constituent Notification
1	F001 - spent halogenated solvent use in degreasing	X		1,1,1-Trichloroethylene
2	F001 - spent halogenated solvent use in degreasing	X		Trichloroethylene
3	F003 - spent halogenated solvent	X		Acetone
4	F003 - spent halogenated solvent	X		Ethyl Benzene
5	F003 - spent halogenated solvent	X		Xylene (total)
6	F005 - spent halogenated solvent	X		Carbon Disulfide
7	F005 - spent halogenated solvent	X		Methyl ethyl ketone
8	F005 - spent halogenated solvent	X		Toluene
9	F005 - spent halogenated solvent	X		Benzene
WASTE CERTIFICATION				
Waste meeting treatment standard at the point of generation. I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268 subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment. Reference 40 CFR §268.7(a)(3)(i).				
/s/ Harry Perry		Print/type name and title		Date
Generator's signature 		Harry A. Perry		12/13/01

Waste Stream Number LRY5MWFY01021
References

Bechtel Nevada Organization Procedure, OP-2151.301, Radioactive Waste Evaluation, Rev. 0.

Bechtel Nevada Organization Procedure, OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS, Rev. 2.

Material Evaluation Form Folder No. F01021.

Material Evaluation Form Folder No. F01020.

NTSWAC Profile Number LRY5MWFY01020, CAU 254, Area 25, R-MAD Decontamination Facility - Mixed Waste.

U.S. Department of Energy Report DOE/NV-619, Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, June 2000.

Table 1
Process Knowledge and Confirmatory Summary
CAU 254, Analytical Results for Hazardous Waste Determination

Sample Location	Sample Number	Sample Matrix	Aroclor 1250 (mg/kg)	TPH/VOC (mg/kg)	Acetone (mg/kg)	Benzene (mg/kg)	Carbon Disulfide (mg/kg)	Toluene (mg/kg)	P-Isopropyltoluene (mg/kg)	4-Methyl-2-Pentanol (mg/kg)	4-Methylphenol (mg/kg)	Bis(2-Ethylhexyl) Phthalate (mg/kg)	Dinonyl Phthalate (mg/kg)	Chloroform (mg/kg)	Naphthalene (mg/kg)	Phenol (mg/kg)	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)		
Process Knowledge Data																										
W. Decon Pad	25400545	Concrete	3.80	31																						
E. Decon Pad	25400518	Concrete	0.81	38		0.0058														0.12						
E. Decon Bay Floor	25400549	Concrete	0.78	510	0.085							1.80				0.5										
E. Decon Pad	25400582	Concrete	0.062	40								2.60										0.054				
E. Decon Pad	25400583	Concrete	0.150	150	0.028							1.80							0.15							
E. Decon Bay Floor	25400542	Concrete	0.77	32	0.092							0.38	0.850													
SW Floor Near Tank, Tank	25400558	Concrete	2.48	87	0.28							2.00		0.0290	0.0083											
NE Decon Bay Floor	25400625	Concrete	0.28		0.071									0.0073												
NW Decon Bay Floor	25400530	Concrete	0.85											0.017	0.0083	0.5			0.15	0.12	0.054					
Average			1.01	124	0.11	0.0058						1.88	0.850													
2 Standard Deviations			2.03	351	0.18							1.83		0.026												
Aug + 2SD			3.04	478	0.31							3.31		0.043												
Batch	25400522	Wood	0.33	360	0.84			0.78	0.087																	
S. Decon Bay Door	25400518	Wood	1.48	200	0.36				0.120	0.25									4.70	0.42	0.30					
SE Decon Bay Door	25400514	Wood	0.80	120	0.11				0.120		11.00	2.90							0.18							
NW Decon Bay Door	25400520	Wood	0.85	180					0.037			85							0.41		0.079					
Average			0.80	218	0.44			0.78	0.09	0.25	11.00	29							1.78	0.42	0.18					
2 Standard Deviations			0.81	283	0.74				0.07			75							5.09		0.31					
Aug + 2SD			1.71	420	1.18				0.18			183							6.83		0.58					
E. Sec. OFE, Decon Bay Door	25400523	Insulation	1.80									140	43						0.18	0.18	0.305					
S. Decon Bay Door	25400528	Insulation	3.80			0.082						86						0.85	0.65	0.055	3.1					
NW Decon Bay Door	25400624	Insulation	2.70									140					0.083	0.405	0.08	0.405	2.7					
Average			2.83			0.082						115	43				0.058	0.628	0.887	0.207	2.04					
2 Standard Deviations			2.00									85						0.829	0.912	0.358	3.02					
Aug + 2SD			4.84									201						1.28	1.80	0.586	8.08					
Confirmatory Data																										
S. Decon Bay Door	WC01000021	Insulation															0.0340	0.454	0.407	0.6181	0.0747	0.00089	0.0348	0.0033		
SE Decon Bay Door	WC01000022	Wood															0.0418	0.181	0.011	0.0981	0.0545	0.00012	0.0348	0.0028		
NW Decon Bay Door	WC01000023	Insulation															0.0321	0.428	0.117	0.0172	0.0312	0.00027	0.0348	0.0036		
Average																	0.036	0.347	0.178	0.0345	0.0535	0.00043	0.0348	0.0032		
2 Standard Deviations																	0.018	0.323	0.490	0.0583	0.0435	0.00082	0.0000	0.0008		
Aug + 2SD																	0.046	0.870	0.589	0.0927	0.0870	0.00124	0.0348	0.0048		

Note: The CADD South decon bay door wood sample (25400518) result for cadmium (4.7 mg/L) is not used for toxicity characteristic waste determination. The cadmium results (0.0185 mg/L) for the confirmatory sample (WC01000022) representative of the entire door wood is used for toxicity characteristic waste determination.

Note: Only results above detection limits are reported in the CADD.

Table 2
Process Knowledge Summary
CAU 254, Analytical Results for Radiological Determination

Sample Location	Sample Number	Sample Matrix	Cs-137		Sr-90		Co-60		Nb-94		Ba-134		U-234		U-235		U-238		Pu-239	
			(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-
Process Knowledge Data																				
E. Decon Pad	25400516	Concrete	27.8	4.8	22.0	4.0	0.130	0.064	0.20	0.09			1.81	0.81	0.34	0.11	0.66	0.18	0.09	0.05
E. Decon Bay Floor	25400548	Concrete	184.0	27.0	1000.0	180.0	0.189	0.098	0.75	0.19	2.97	0.79	84.8	9.3	3.57	0.60	1.21	0.26	0.85	0.17
E. Decon Pad	25400562	Concrete	12.6	2.1	6.0	1.6	0.187	0.079					2.23	0.3	0.191	0.046	0.585	0.095		
E. Decon Pad	25400583	Concrete	218.0	38.0	20.5	37.0	0.233	0.085	0.33	0.12			205.0	2.6	1.42	0.20	0.64	0.13	0.308	0.099
E. Decon Bay Floor	25400542	Concrete	479.0	78.0	208.0	64.0	0.237	0.094	0.45	0.15	2.12	0.82	41.5	5.8	2.06	0.38	0.70	0.17	0.323	0.070
SW Floor Near Turb. Tank	25400559	Concrete	183.0	27.0	237.0	43.00		0.31	0.12	1.19	0.44		55.3	8.9	3.17	0.42	1.83	0.26	0.35	0.10
NE Floor	25400525	Concrete	0.33	0.13	1.6	0.39							0.87	0.18	0.52	0.14	0.62	0.14		
Bench	25400522	Wood	1.07	0.34									0.22	0.07						
S. Decon Bay Door	25400519	Wood	581.0	83.0	61.0	15.0	0.780	0.250	0.85	0.33			20.80	2.80	1.32	0.23	0.22	0.07	0.157	0.056
SE Decon Bay Door	25400514	Wood	13.8	2.7	74.8	13.8							20.80	2.80	1.48	0.25	0.368	0.095	0.189	0.057
NW Decon Bay Door	25400520	Wood	61.0	10.0	148.0	28.0							90.0	13.0	4.41	0.73	0.62	0.15	0.235	0.070
S. Sec. of E. Decon Bay Door	25400523	Insulation			2.21	0.51					4.5	1.8	7.8	1.1	0.69	0.14	4.32	0.84		
S. Decon Bay Door	25400526	Insulation	65.00	10.00	3.84	0.78							5.04	0.73	0.287	0.083	3.72	0.55		
NW Decon Bay Door	25400524	Insulation											4.07	0.60	0.259	0.077	3.71	0.55		
1st Railroad Tie	25400552	Wood	740.0	120.0	191.0	34.0		1.88	0.64	9.0	3.4		55.7	9.0	3.27	0.58	0.58	0.18	0.37	0.10
Average			189.2		180.4		0.283		0.68		3.98		38.8		1.84		1.41		0.29	
Low Range			0.2		1.4		0.484		0.12		0.75		0.1		0.23		0.15		0.04	
High Range			860.0		1180.0		0.776		2.50		12.4		207.6		5.14		4.98		1.29	
Report Radionuclide (Yes/No)			Yes		Yes		No		Yes		Yes		Yes		Yes		Yes		Yes	

Note: Only results for radionuclides reported in the CADD are included.

B-21

CAU 254, Mixed Waste
Profile Activity

	Waste Mass (kg)	Waste Volume (m³)	Cs-137		Sr-90		Nb-94		Eu-154		U-234		U-235		U-238		Pu-239	
			(pCi/g)	Bq/m³	(pCi/g)	Bq/m³	(pCi/g)	Bq/m³	(pCi/g)	Bq/m³	(pCi/g)	Bq/m³	(pCi/g)	Bq/m³	(pCi/g)	Bq/m³	(pCi/g)	Bq/m³
	103813	184																
Average			189.2	4.43E+06	180.4	3.78E+06	0.678	1.58E+04	3.88	8.27E+04	38.5	9.01E+05	1.84	3.85E+04	1.41E+00	3.31E+04	0.294	6.89E+03
Low Range			0.2	4.68E+03	1.38	3.23E+04	0.115	2.69E+03	0.75	1.78E+04	0.148	3.47E+03	0.23	5.39E+03	1.50E-01	3.51E+03	0.042	8.84E+02
High Range			880	2.01E+07	1180	2.78E+07	2.5	5.86E+04	12.4	2.90E+05	207.6	4.88E+06	5.14	1.20E+05	4.98E+00	1.18E+05	1.293	3.03E+04
Calculation Example: Bq/m³ = Activity (pCi/g) * Waste Mass (kg) * 1000 pCi/g * 0.037 Bq/pCi / Waste Volume (m³)																		

B-27

Perry, Harry
From: Hatcher, Larry
Sent: Tuesday, January 15, 2002 1:50 PM
To: Perry, Harry
Subject: RE: LYR5MWFY01021, Revised Table 1 & Table B-1 Backup Table

I have reviewed the contents of cells which perform calculations. The discrepancies I identified have been corrected and the spreadsheet appears correct.

Larry

-----Original Message-----

From: **Perry, Harry**
Sent: Tuesday, January 15, 2002 1:21 PM
To: Hatcher, Larry
Subject: LYR5MWFY01021, Revised Table 1 & Table B-1 Backup Table

Please review the calculations for the attached Table 1.

I have reviewed the calculations and revised the calculations in Table 1.

In Table 1, note the changes in the "Avg + 2SD" insulation values for cadmium and lead values. These values are greater than the regulatory limits. This the reason we had the waste material resample. Representative samples were taken from material of concern and analyzed for TCLP metals. The results for the insulation were determined by dividing total metals by 20 as a conservative estimate for TCLP metals. As you can see the confirmatory results are much lower and were used for waste determination.

<< File: Table 1.xls >>

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**HAZARDOUS WASTE
MATERIAL PROFILES**

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MATERIAL PROFILE

Safety-Kleen (SK) Use Only	If applicable, Intercompany Billing Facility #	Customer Number:	SK Line Of Business #:	Facility Profile #:
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A. GENERATOR INFORMATION ☐ Check if Billing Information is same as Generator Information

Generator Name Bechtel Nevada for USDOE Billing Company Bechtel Nevada

Facility Address (No P.O. Box) Nevada Test Site Billing Address P.O. Box 98521

City/State/Zip Mercury, Nevada 89023 City/State/Zip Las Vegas, NV 89193-8521

Technical Contact Shannon Parsons-DePry Billing Contact Linda Fletcher

Phone (702) 295-0643 Fax (702) 295-4815 Phone (702) 295-2172 Fax _____

E-mail Parsonsm@nv.doe.gov Generator Location (If different from above) _____

SIC Code: 9711 ☐ CESQG ☐ SQG US EPA ID # NV3890090001 State Generating ID # _____

B. SHIPPING INFORMATION ☐ DOT Assistance Requested ☒ Check if SK Transportation Services are requested

US DOT Proper Shipping Name Hazardous Waste, solid, n.o.s. (lead)

Hazard Class / Division # 9 ID # (UN / NA) NA3077 Packing Group (PG) III RQ _____

Non-Bulk Shipping Containers					Bulk Shipping Containers	
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Quantity, Size & Frequency
<u>30</u> Gal	☒	☐	☐	<u>1 DM/YR</u>	☐ Yd. ³ Box or ☐ Super Sack	
Gal	☐	☐	☐		☐ Hard Top or ☐ Tarped Bin	
Gal	☐	☐	☐		☐ End Dump (Tarped) Trailer	
Gal	☐	☐	☐		☐ Tank or ☐ Vacuum	

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Material Lead Debris

Process Generating The Material Facility maintenance/cleanup

Odor: ☒ None ☐ Mild ☐ Strong; Describe _____

Yes No ☐ ☒ Regulated or Licensed Radioactive Waste ☐ ☒ Regulated Medical / Infectious Waste ☐ ☒ Regulated Benzene NESHAP Waste ☐ ☒ TSCA Regulated PCB Waste (List any PCB level in Sec.D) ☐ ☒ Regulated Subpart CC Waste (VO₂ ≥ 500 ppm) ☐ ☒ Regulated Ozone Depleting Substance ☐ ☒ CERCLA Regulated (Superfund) Waste ☒ ☐ Hazardous Debris (Subject to alternative LDR treatment standards) ☐ ☒ Waste Contains UHCs/Constituents Of Concern If Yes, list in ☐ Sec. D or ☐ Constituent Addendum	Yes No ☐ ☒ Meets LDR Standards or ☐ Partially Meets (Landfill Only) ☐ ☒ Commingled Waste (2 or more hazardous wastes mixed as one) ☒ ☐ Sorbent Added; If Yes, is sorbent biodegradable? ☐ Yes ☒ No ☐ ☒ Exempt Waste; If Yes, list reference, 40 CFR _____ ☐ ☒ State Hazardous Waste; State Code _____ ☒ ☐ EPA Hazardous Waste EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive): <u>D008</u>
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EPA Haz Waste Only Origin Code: ☒ 1 ☐ 2 ☐ 3 ☐ 4 Source Code: A 59 Form Code: B 307 System Code: M 141

D. MATERIAL COMPOSITION

1. Chemical/Physical Constituents: List all detectable components by chemical name, including physical material, e.g., sorbent, debris.

Material Components & Composition	ppm	☐ wt % ☒ vol %	Material Components & Composition	ppm	☐ wt % ☐ vol %
Debris: Lead bricks, lead metal, lead tape.		<u>90-100</u>			
PPE, rags, paper, cardboard					
Absorbent/Soil		<u>0-10</u>			

Range Total > 100 %

SAFETY-KLEEN MATERIAL PROFILE (continued):

SK REFERENCE NO: 3015192

Note: Completion of Sections D.2 & F is optional for: ☐ Analytical Profile (representative sample submitted; test results used to complete D.2 & F)
 Completion of Sections D.2, E, & F is optional for: ☒ Standard Industry Profile (Safety-Kleen historical data utilized to complete D.2, E, & F)

D. MATERIAL COMPOSITION (Continued)

2. Elemental Constituents ☐ Check if this waste contains No Detectable Elements / Metals, unless listed below.Check either: ☐ Total Analysis or ☐ TCLP Method or ☐ Generator Knowledge, then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Sodium	
Antimony		Chlorine		Lead		Phosphorous		Sulfur	
Arsenic		Chromium		Lithium		Potassium		Thallium	
Barium		Cobalt		Manganese		Selenium		Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver		Zinc	

E. REACTIVE CHARACTERISTICS

☒ Check if this waste exhibits No Reactive Characteristics

Yes No

☐ ☐

Explosive

Yes No

☐ ☐

Oxidizer

Yes No

☐ ☐

Reactive Cyanide

ppm

☐ ☐

Shock Sensitive

☐ ☐

Water Reactive

☐ ☐

Reactive Sulfide

ppm

☐ ☐

Pyrophoric

☐ ☐

Air Reactive

☐ ☐

Polymerizable

Other Incompatibles; Describe

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases	Color <u>varies</u>	Flash Point <u>n/a</u> °F (if < 73°F)	pH ☐ Liquids >20% H ₂ O or pH ☐ Non-Aqueous
Liquid % <u>0</u>	Specific Gravity <u>vari</u>	☐ 73 - <100°F ☐ 100 - 141°F	☐ ≤ 2 pH ☐ > 2 - 4 pH ☐ > 4 - 10 pH
Sludge % <u>0</u>	Viscosity cps <u>n/a</u>	☐ 142°F. - <200°F ☐ ≥200°F	☐ > 10 - < 12.5 pH ☐ ≥ 12.5 pH
Solid % <u>100</u>	Density <u>varies</u>	Boiling Point (if < 130°F) <u>n/a</u>	BTU's / lb. or Range <u>n/a</u>
Powder % <u>0</u>	☐ lbs./ gal. ☐ lbs./ cu. ft.	Ash % (Bridgeport Only)	
Gas % <u>0</u>	Comments		

G. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein have been disclosed. I agree that if the sample test results indicate a discrepancy with any information supplied on this form, that either Safety-Kleen or the generator may initiate further testing and evaluation in accordance with the terms and conditions of the contract between Safety-Kleen and the generator and that this profile certification may be amended accordingly.

Generator's Authorized Signature

Troy S. Belka, Senior Scientist

Name & Title (Printed or Typed)

Date

10 / 15 / 01

Comments

SK Use only

☐ SKOS ☐ SKVS ☐ Non-haz Evaluation ☐ Standard Industry Profile: SIP Index #

SK Sales Rep. Name

Employee #

Territory/Branch #

Process Approval #

Product Code or Part #

TRJ Flowpath #

Pricing

Waste Approval & Certification

We certify acceptability of this waste stream and that all appropriate permits have been obtained, as indicated by Safety-Kleen's facility approval below:

SK Authorized Facility Signature

Name & Title (Printed or Typed)

Date

Container Contents

Date 9/12/01

☐ Bulk

☒ Mixed Lab

Manifest # _____

Company - Site Location - FY - Number

Container Number:	BN	NTS	01	0254
DOT Shipping				
Name: Hazardous waste, solid, n.o.s. (lead), 9, NA3077, PG-III				
Hazard Class: 9	UN/NA	PG:	RQ: N/A	
Division: —	Number: NA3077	III		
Container Type: 1A2/X400/99, DM		Size: 30-G, 300#		
Chemical: Lead				
Constituents: Rolls of Pb tape, and Pb bricks & collars				

Profile Number:	
Disposal Site:	
Approval Code:	

Line No.	Material Description	PS	Material Quantity	IC	EPA Waste Code Number
01	BN-NTS-01-0123, rolls of industrial tape, lead, generated 6/4/01.	S	12 rolls: 2 rolls 2-in., 10 rolls 1-in.	N/A	D008
02	BN-NTS-01-0222, lead collars, bricks, & pieces, generated 7/26/01.	S	~240-pounds, bundled in plastic bags.	P	D008
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
PS - PHYSICAL STATE L - LIQUID/POURABLE S - SOLID X - SLUDGE IC - INTERNAL CONTAINER G - GLASS M - METAL P - PLASTIC F - PAPER					
This Lab Pack list continues: ☐ YES ☒ NO					

Antifreeze Documentation



SK REFERENCE NO: 3015183

MATERIAL PROFILE

Safety-Kleen (SK) Use Only	If applicable, Intercompany Billing Facility #	Customer Number:	SK Line Of Business #:	Facility Profile #:
-------------------------------	---	---------------------	---------------------------	------------------------

A. GENERATOR INFORMATION ☐ Check if Billing Information is same as Generator Information

Generator Name Bechtel Nevada for USDOE Billing Company Bechtel Nevada

Facility Address (No P.O. Box) Nevada Test Site Billing Address P.O. Box 98521

City/State/Zip Mercury, Nevada 89023 City/State/Zip Las Vegas, NV 89193-8521

Technical Contact Shannon Parsons-DePry Billing Contact Linda Fletcher

Phone (702) 295-0645 Fax (702) 295-4815 Phone (702) 295-2172 Fax _____

E-mail Parsonsm@nv.doe.gov Generator Location (If different from above) _____

SIC Code: 9711 ☐ CESQG ☐ SQG US EPA ID # NV3890090001 State Generating ID # _____

B. SHIPPING INFORMATION ☐ DOT Assistance Requested ☒ Check if SK Transportation Services are requested

US DOT Proper Shipping Name Hazardous waste, liquid, n.o.s.

Hazard Class / Division # 9 ID # (UN / NA) NA3082 Packing Group (PG) III RQ _____

Non-Bulk Shipping Containers					Bulk Shipping Containers	
Size	Steel	Poly	Fiber	Quantity & Frequency	Container Type	Quantity, Size & Frequency
<u>15</u> Gal	☒	☐	☐	<u>1 dr/yr</u>	☐ Yd. ³ Box or ☐ Super Sack	
_____ Gal	☐	☐	☐		☐ Hard Top or ☐ Tarped Bin	
_____ Gal	☐	☐	☐		☐ End Dump (Tarped) Trailer	
_____ Gal	☐	☐	☐		☐ Tank or ☐ Vacuum	

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Material Antifreeze with organic UHCs

Process Generating The Material maintenance

Odor: ☒ None ☐ Mild ☐ Strong; Describe _____

☐ Yes ☒ No	☐ Regulated or Licensed Radioactive Waste	☐ Yes ☒ No	☐ Meets LDR Standards or ☐ Partially Meets (Landfill Only)
☐ Yes ☒ No	☐ Regulated Medical / Infectious Waste	☐ Yes ☒ No	☐ Commingled Waste (2 or more hazardous wastes mixed as one)
☐ Yes ☒ No	☐ Regulated Benzene NESHAP Waste	☐ Yes ☒ No	☐ Sorbent Added; If Yes, is sorbent biodegradable? ☐ Yes ☒ No
☐ Yes ☒ No	☐ TSCA Regulated PCB Waste (List any PCB level in Sec. D)	☐ Yes ☒ No	☐ Exempt Waste; If Yes, list reference, 40 CFR _____
☐ Yes ☒ No	☐ Regulated Subpart CC Waste (VOs ≥ 500 ppm)	☐ Yes ☒ No	☐ State Hazardous Waste; State Code _____
☐ Yes ☒ No	☐ Regulated Ozone Depleting Substance	☒ Yes ☐ No	☐ EPA Hazardous Waste
☐ Yes ☒ No	☐ CERCLA Regulated (Superfund) Waste	EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive):	
☐ Yes ☒ No	☐ Hazardous Debris (Subject to alternative LDR treatment standards)	<u>D004-D011</u>	
☒ Yes ☐ No	☐ Waste Contains UHCs/Constituents Of Concern		

If Yes, list in ☒ Sec. D or ☐ Constituent Addendum _____

EPA Haz Waste Only Origin Code: ☒ 1 ☐ 2 ☐ 3 ☐ 4 Source Code: A 59 Form Code: B 207 System Code: M 141

D. MATERIAL COMPOSITION

1. Chemical/Physical Constituents: List all detectable components by chemical name, including physical material, e.g., sorbent, debris.

Material Components & Composition	ppm	☐ wt %	Material Components & Composition	ppm	☐ wt %
		☒ vol %			☒ vol %
<u>Water</u>		<u>40-70</u>			
<u>ethylene glycol/antifreeze</u>		<u>30-60</u>			
<u>Solids: dirt, scale</u>		<u>0-5</u>			
<u>UHCs: pentachlorophenol, phenol</u>					

Range Total >= 100 %

Section D continues on the next page for Elemental Constituents

SAFETY-KLEEN MATERIAL PROFILE (continued):

SK REFERENCE NO: 3015183

Note: Completion of Sections D.2 & F is optional for: ☐ Analytical Profile (representative sample submitted; test results used to complete D.2 & F)
 Completion of Sections D.2, E, & F is optional for: ☒ Standard Industry Profile (Safety-Kleen historical data utilized to complete D.2, E, & F)

D. MATERIAL COMPOSITION (Continued)

2. Elemental Constituents ☐ Check if this waste contains No Detectable Elements / Metals, unless listed below.Check either: ☐ Total Analysis or ☐ TCLP Method or ☒ Generator Knowledge, then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium	0-100	Fluorine		Nickel		Sodium	
Antimony		Chlorine		Lead	0-500	Phosphorous		Sulfur	
Arsenic	0-500	Chromium	0-500	Lithium		Potassium		Thallium	
Barium	0-1000	Cobalt		Manganese		Selenium	0-200	Titanium	
Beryllium		Copper		Mercury	0-10	Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver	0-500	Zinc	

E. REACTIVE CHARACTERISTICS

☒ Check if this waste exhibits No Reactive Characteristics

Yes No

☐ ☐ Explosive☐ ☐ Shock Sensitive☐ ☐ Pyrophoric

Yes No

☐ ☐ Oxidizer☐ ☐ Water Reactive☐ ☐ Air Reactive

Yes No

☐ ☐ Reactive Cyanide _____ ppm☐ ☐ Reactive Sulfide _____ ppm☐ ☐ Polymerizable

Other Incompatibles; Describe _____

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases	1	Color	varies	Flash Point	_____ °F (if < 73°F)	pH ☒ Liquids >20% H ₂ O or pH ☐ Non-Aqueous
Liquid %	98	Specific Gravity	1.2	☐ 73 - <100°F ☐ 100 - 141°F	☐ ≤ 2 pH ☒ > 2 - 4 pH ☒ > 4 - 10 pH	
Sludge %	2	Viscosity cps		☐ 142°F - <200°F ☒ ≥200°F	☐ > 10 - < 12.5 pH ☐ ≥ 12.5 pH	
Solid %	0	Density		Boiling Point (if < 130°F)	BTUs / lb. or Range _____	
Powder %	0	☐ lbs / gal. ☐ lbs / cu. ft.		Ash % (Bridgeport Only)		
Gas %	0	Comments				

G. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein have been disclosed. I agree that if the sample test results indicate a discrepancy with any information supplied on this form, that either Safety-Kleen or the generator may initiate further testing and evaluation in accordance with the terms and conditions of the contract between Safety-Kleen and the generator and that this profile certification may be amended accordingly.

/s/ Signature on file

Troy S. Belka, Senior Scientist

10 / 15 / 01

Generator's Authorized Signature

Name & Title (Printed or Typed)

Date

Comments _____

SK Use Only

☐ SKOS ☐ SKVS ☐ Non-haz Evaluation ☐ Standard Industry Profile: SIP Index # _____

SK Sales Rep. Name _____ Employee # _____ Territory/Branch # _____

Process Approval # _____ Product Code or Part # _____ TRI Flowpath # _____ Pricing _____

Waste Approval & Certification

We certify acceptability of this waste stream and that all appropriate permits have been obtained, as indicated by Safety-Kleen's facility approval below:

SK Authorized Facility Signature

Name & Title (Printed or Typed)

Date

PCB Ballasts Documentation

Date of Request: June 7, 2001Date Needed: June 14, 2001Charge #: C7F14D11Requester Name: Curtis ObiPhone Number: (702) 295-5577Org. Name/No.: BN/ER 2152Secondary Contact: Dennis GustafsonPhone Number: (702) 295-0684Mail Stop: NTS306

EP Number: _____

Facility Owner or Designee: _____

Dennis Gustafson**Section A - Services Requested**Check one: ☐ Used Oil ☐ Hazardous ☐ UnknownCheck Applicable: ☐ Sampling ☐ Characterization ☐ Pickup ☐ Transport only ☐ Recycling ☒ Disposal
☐ Delivery (i.e., empty packages) ☐ SAA ☒ 90-Day Storage ☐ UWCC ☐ Activate ☐ Deactivate
Indicate SAA#, 90-Day#, or UWCC #, if applicable: 2-NTS9001 6/25Location of Pickup (Area, Bldg., exact directions are necessary, attach map if necessary):
Area 25 R-MAD Decontamination Facility, Building 3126.**Section B - General Waste Information** (Use continuation sheet if necessary)Waste Generation Date: June 4, 2001 ☒ One Time Generation ☐ Routine Generation CAU/CAS if applicable: CAU254Radiological Clearance provided: ☐ BN-0121, Clearance Sticker ☒ BN-0488, Green Tag ☐ BN-0002, Hazardous Waste Certification
☐ NoneWaste Amount (Gallons): < 1 gallon Type of Container (i.e., can, drum, carboy, tanker, etc.): 5-gal bucket 30-NTS-01-015
Number of Containers: 1

Detailed Description/Process Knowledge (i.e., Liquid, Solid, Gas; Name of material; Physical description; How waste was generated, Suspected contaminants, etc.): (Attach applicable MSDSs.)

Two brick-sized ballasts from fluorescent-light fixtures from office in Building 3126. May contain PCBs. The ballasts have a date of 3/82 with a manufacture of Advance Transformers Company, Chicago 18. At least one has leaked. Both are in a plastic bag inside a covered 5-gallon plastic bucket being held in the waste accumulation area at CAU 254.*I certify under penalty of law, the above information is correct and additional information required is available as indicated. The material requested for pickup has only those materials described on this form. Contents will be verified by process knowledge of origin, MSDS, and/or sampling and analysis.*(specify) ☒ Generator ☐ Facility Owner ☐ Project Manager

Signature: _____

Section C - Work Location Information

Facility Point of Contact (Name, Phone, Pager):

Curtis Obi, 295-5577, 794-8659

Who will sign the Work Package Traveler? (Name, Phone, Pager):

Curtis Obi, 295-5577, 794-6659

Facility Access Requirements:

Need to check in at R-MAD entrance. Access limited to waste storage area.

Known hazards in the requested service area:

none

Acceptable time period to conduct requested services:

Hours (AM/PM): 08:00 - 16:00Day(s): Mon - Thu**Section D - Services Completed**Waste characterized by: Process knowledge MSDS Sampling & Analysis Other: _____

Remarks (scheduling, pickup, disposition, etc.):

Shipped to A-5 on Enrite # 01N31.Receiving Facility: A-5 HWSLISignature: /s/ Signature on fileDate: 6/26/01

Manifest
Document
No.:

Bechtel Nevada

Page 1 of 1

0 1 N 3 1

Generation Date: 6/4/01

ONSITE WASTE TRANSPORT MANIFEST

1. Generator's Name, Organization, and Location: (Please Print)

BN Env. Rem., Curtis Obi, HWAA #NTS9001
C7F14D11, org. #2152
Area 25 R-MAD Bldg. 3126

Generator's Phone: (702) 295-5577

2. Receiving Facility, Organization, Location: (Please Print)

BN Hazardous Waste Storage Unit
Haz Waste Ops, org. #2151
Area 5 Bldg. 5-20

Facility Phone: (702) 295-7669

3a. Transporter Name:
(Please Print)

BN Haz Waste Ops

Transport Date:

6/26/01

3b. Vehicle I.D. Number:

66302136

4. U.S. D.O.T. Description. Include: EPA Waste Code and Package Identification Numbers.

HM

X

POLYCHLORINATED BIPHENYLS, LIQUID, 9, UN2315, PG-II

#BN-NTS-01-0156

— last item —

5. Containers

No.

Type

6. Total
Quantity

7. Unit
Wt./Vol.

1

DF

1

G

18 lbs.

Radiation Survey Release for Waste Disposal
RCT Initials



This container/load is free of external radioactive contamination.



This container/load is exempt from survey due to process knowledge and origin.



This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE:

DATE: 6-26-01

BN-0266 (05/01)

Use continuation pages for additional items, as necessary.

8. Special Handling Instructions and Additional Information:

24 Hour emergency contact: 702 - 295-6400

ERG #171

Out of service date - 6/4/2001

9. Released by: (Signature)

/s/ Signature on file

Date:

6/26/2001

10. Received for Transport by: (Signature)

/s/ Signature on file

Date:

6-26-01

11. Discrepancy Indication:

12. Disposal/Accumulation Site Signature:
(Acknowledges acceptance of waste)

/s/ Signature on file

Date:

6/26/01

Distribution: Original - HWO
Copy - Generator

BN-0266 (05/01)

3-35



STATE OF ARKANSAS
Department of Pollution Control and Ecology
P.O. Box 8913 Little Rock, Arkansas 72219-8913
Telephone 501-682-0744

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NV38800000001	Manifest Document No. 01005	2. Page 1 of 3	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Bechtel Nevada for U.S. DOE P.O. Box 08521 Las Vegas, NV 89103 702 295-6400			A. State Manifest Document Number AR- 1065742			
4. Generator's Phone ()			B. State Generator's ID			
5. Transporter 1 Company Name TRIAD Transport, Inc			C. State Transporter's ID H- 227			
6. US EPA ID Number OKD981588781			D. Transporter's Phone 800-324-1138			
7. Transporter 2 Company Name			E. State Transporter's ID H-			
8. US EPA ID Number			F. Transporter's Phone			
9. Designated Facility Name and Site Address Enesco 309 American Circle El Dorado, AR 71730			G. State Facility's ID 870-863-7173			
10. US EPA ID Number ARD089748192			H. Facility's Phone			
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a. X Hazardous waste, solid, n.o.s., (methyl ethyl ketone, toluene, xylene), 9, NA3077, III		1	DF	79.0	P	F005, F003, D035
b. X Hazardous waste, solid, n.o.s., (benzene), 9, NA3077, III		1	DF	122.0	P	D018
c. X Hazardous waste, solid, n.o.s., (chromium, methylene chloride), 9, NA3077, III		1	DF	7.0	P	D007, F002
d. X Hazardous waste, liquid, n.o.s., (silver), 9, NA3082, III		6	DF	283.0	P	D011
J. Additional Description for Materials Listed Above a: BN-NTS-01-0113, 50002960 b: BN-NTS-01-0111, 50002960 c: BN-NTS-01-0106, 50002960 d: BN-NTS-01-0100 thru 0104, 50002958 If no alternate TSDF, return to generator			K. Emergency Response Information: 4005			
15. Special Handling Instructions and Additional Information 24-hour emergency contact # (702) 295-6400 Collect Use Proper PPE when handling containers Certificate of Destruction is required			ER Guide No(s): 171			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name TROY S. BELKA			Signature /s/ Signature on file Month Day Year 07.26.01			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Charles E. Hott			Signature /s/ Signature on file Month Day Year 07.26.01			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature Month Day Year			
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name DERRIE VINSON			Signature /s/ Signature on file Month Day Year 08.05.01			

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

B-36

NOTICE: THE ORIGINAL AND NOT LESS THAN TWO (2) COPIES MUST MOVE WITH THE HAZARDOUS WASTE SHIPMENT. ONCE DELIVERED, THE TREATMENT/STORAGE/DISPOSAL (TSD) FACILITY MUST SIGN AND DATE THE BOTTOM OF THE MANIFEST.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. NV3890000001	Manifest Document No. 01005		22. Page 2 of 3	Information in the shaded areas is not required by Federal law.	
23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-6400					L. State Manifest Document Number		
					M. State Generator's ID		
24. Transporter Company Name TRIAD Transport, Inc.			25. US EPA ID Number OKD081522731		N. State Transporter's ID		
26. Transporter Company Name			27. US EPA ID Number		O. Transporter's Phone 800-326-1139		
					P. State Transporter's ID		
					Q. Transporter's Phone		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)					29. Containers	30. Total Quantity	31. Unit Wt/Vol
					No.	Type	R. Waste No.
a.	X	RQ, Waste Mercury, 8, UN2809, III (mercury)			1	DM	20.0
b.	x	Waste Adhesives, containing a flammable liquid, 3, UN1133, III			1	DF	4.0
c.	x	Hazardous waste solid, n.o.s., (mercury), 9, NA3077, III			2	DM	180.0
d.	x	Lithium battery, 9, UN3090, II			1	DF	1.0
e.		Non-DOT regulated PCB's			1	DF	8.0
f.		Universal waste- Ni-Cd batteries			4	DF	316.0
g.		Universal waste-mercury batteries			1	DF	1.0
h.		Universal waste-Mercury vapor lamps			1	CF	10.0
i.		Universal waste-Fluorescent lamps			29	DF	2620.0
S. Additional Descriptions for Materials Listed Above					T. Handling Codes for Wastes Listed Above		
a: BN-NTS-01-0120, 50002920					e: BN-NTS-01-0150, 50003011, out of service date 6/4/01, PCB ballasts		
b: BN-NTS-01-0099, 50003015					f: BN-NTS-01-0170 thru -0180, -0183, 50003053		
c: BN-NTS-01-0184, -0186, 50002961, universal waste in initiating state, hazardous waste in receiving state					g: BN-NTS-01-0182, 50003141		
d: BN-NTS-01-0181, 50002964					h: BN-NTS-01-0181, 50002963		
32. Special Handling Instructions and Additional Information							
i: BN-NTS-01-0158 thru -0177, -0185 thru -0187, -0189, -0180, -0192, -0200, -0201, -0206							
24-hour emergency contact # (702) 295-8400 Certificate of destruction is required							
ER Guide No(s): 172, 128, 171, 138							
33. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name Charles Elliott					Signature /s/ Signature on file		Month Day Year 07/26/01
34. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name					Signature		Month Day Year
35. Discrepancy Indication Space							



**UNIFORM HAZARDOUS
WASTE MANIFEST
(Continuation Sheet)**21. Generator's US EPA ID No.
NV389090001Manifest Document No.
0100522. Page
3 of 3Information in the shaded
areas is not required by Federal
law.23. Generator's **Brockel Nevada for U.S. DOE**
P.O. Box 98521
Las Vegas, NV 89193
702-295-8400

L. State Manifest Document Number

M. State Generator's ID

24. Transporter Company Name
TRIAD Transport, Inc.25. US EPA ID Number
OKD981588791

N. State Transporter's ID

O. Transporter's Phone **800-324-1139**

26. Transporter Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

29. Containers

30. Total
Quantity31. Unit
Wt/Vol

R. Waste No.

a. **Universal waste- Fluorescent lamps****8****CF****80.0****P**

b.

c.

d.

e.

f.

g.

h.

i.

S. Additional Descriptions for Materials Listed Above

a: BN-NTS-01-0188, -0183 thru -0185, -0202 thru -0205, 50002982

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

24-hour emergency contact # (702) 295-8400 Certificate of destruction is required

33. Transporter Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

Signature

Month Day Year

34. Transporter Acknowledgement of Receipt of Materials

Date

Printed/Typed Name

Signature

Month Day Year

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY



**EL DORADO, AR**

Ensco
Technical Approvals
309 American Circle
El Dorado, AR 71730
ARD069748192
(870) 863-7173

WILMINGTON, CA

Ensco
Technical Approvals
1737 East Denni
Wilmington, CA 90744
CAD044429835
(310) 835-0775

Indicate which ENSCO Facilities may be used and send this WMDS to your choice as primary facility

Choose an Action

Edit WMDS | Return To List

50003011

A. General Information**RECEIPT INFORMATION**

Contact ATTN: ACCOUNTS PAYABLE
Customer Name BECHTEL NEVADA
Address P.O. BOX 98521 M/S NLV025
Address 2 REFERENCE: SUBCONTRACT # 20401
City LAS VEGAS
State NV
Zip 89193
Phone # 702295-4780
USEPA ID#

SHIPPING FACILITY

Contact ATTN: SHANNON PARSONS DEPRY
Shipper Name NEVADA TEST SITE
Address NEVADA TEST SITE
Address 2
City MERCURY
State NV
Zip 89023
Phone # 702295-8491
USEPA ID# NV3890090001

B. Waste Description

Waste Name LEAKING PCB LIGHT
BALLASTS

50003011

Controlled Document No. R-f0001 8/97

Is a Representative Sample Provided?

☐ Yes

☒ No

Source Code G19

Form Code W219

Process Generating Waste SIC#

9711

Process Description

NATIONAL SECURITY

C. General Characteristics

Color varies

Odor

Strength ☒ None ☐ Strong ☐

Mild

Liquid 20 %

Solid 80 %

Sludge 0 %

Powder 0 %

Gas 0 %

Phases

☐ Single Layer

☒ Double

☐ Multi-Layer

Layer

D. Waste Management Methods

☐ Incineration Only

☐ Recycle Only

☐ Fuel Substitution

☒ Most Appropriate Method

☐ Wastewater or

☒ Non Wastewater as defined in 40 CFR 268.2

E. Special Handling Instructions**F. RCRA Information**

Is this a USEPA hazardous waste?

☐ Yes

☒ No

Is this an acutely hazardous waste? (40 CFR 261.30 and 33)

☐ Yes

☒ No

List the USEPA hazardous waste codes, Specify the nature of any D003 waste in section H 1: NR PCB

List any State Waste Codes or other state designations:

G. Shipping Information

Proper Shipping Description: POLYCHLORINATED BIPHENYLS,
LIQUID

DOT Hazardous Material

☒ Yes

☐ No

Poison Inhalation Hazard

☐ Yes

☒ No

B-39

RQ

Hazard Class: 9

Truck or Rail? T

Pounds: 0

ID#: UN2315

Container Type: P

Gallons: 1

Marine Pollutant

☐ Yes ☒ No

PG: II

Technical N.O.S. descriptions:

Container Size: 1

H. (1) Hazardous Characteristics and Other Components-Section must be completed.☐ None Apply Chlorine Recycle (>0.1%) ☐ Yes ☒ NoMetal Objects: ☐ Yes ☒ No If Yes, describe, include dimensions:☐ Fuming/Smoking Waste☐ Dioxins and Furans☐ Ozone Depletion 40 CFR 82☐ Chlorine 0.00 %☐ Bromine 0.00 %☐ Iodine 0.00 %☐ Fluorine 0.00 %☐ Cyanides 0.00 ppm☐ Sulfides 0.00 ppm☐ Phenolics 0.00 ppm☒ PCB 500000.00 ppm☐ Water Reactive☐ Air Reactive☐ Explosive☐ Radioactive☐ Biological☐ Shock Sensitive☐ Asbestos☐ Affected Benzene Waste☐ Controlled Benzene Waste 40 CFR 61 Subpart FF☐ Oxidizer**(7) Metals**

	Total (ppm)	TCLP (mg/l)	STLC (mg/l)	TTLC (mg/l)
ANTIMONY(SB)	0.0000	0.0000	0.0000	0.0000
ARSENIC(AS)	0.0000	0.0000	0.0000	0.0000
BARIUM(BA)	0.0000	0.0000	0.0000	0.0000
BERYLLIUM(BE)	0.0000	0.0000	0.0000	0.0000
CADMIUM(CD)	0.0000	0.0000	0.0000	0.0000
CHROME VI(CR6)	0.0000	0.0000	0.0000	0.0000
CHROMIUM(CR)	0.0000	0.0000	0.0000	0.0000
COBALT(CO)	0.0000	0.0000	0.0000	0.0000
COPPER(CU)	0.0000	0.0000	0.0000	0.0000
LEAD(PB)	0.0000	0.0000	0.0000	0.0000
MANGANESE(MN)	0.0000	0.0000	0.0000	0.0000
MERCURY(HG)	0.0000	0.0000	0.0000	0.0000
MOLYBDENUM(MO)	0.0000	0.0000	0.0000	0.0000
NICKEL(NI)	0.0000	0.0000	0.0000	0.0000
SELENIUM(SE)	0.0000	0.0000	0.0000	0.0000
SILVER(AG)	0.0000	0.0000	0.0000	0.0000
THALLIUM(TL)	0.0000	0.0000	0.0000	0.0000
VANADIUM(V)	0.0000	0.0000	0.0000	0.0000
ZINC(ZN)	0.0000	0.0000	0.0000	0.0000

I certify metals are below MDL levels: ☐ Yes ☒ No

Minimum Maximum Avg/Actual

(2) Specific Gravity

0.00 0.00 0.00

(3) Viscosity (centipoise)

0 0 0

(4) PH constituent

0.00 0.00 0.00

(5) BTUs (1000/lb) (for example 18900 will be entered as 18.9)

0.00 0.00 0.00

(6) Flash Point (closed cup F)

0 0 0

(1) Chemical Composition

(If actual percentages are not known, use ranges.) Total should be at least 100%.

All Constituents must be specifically identified and physical composition listed separately.

	Minimum	Maximum	Avg/Actual	CAS Number
POLYCHLORINATED BIPHENYLS (PCBS)	5.000%	50.000%	20.000%	1336-36-3%

(2) Physical Composition

I hereby certify that all information in this and all attached documents is complete and accurate and that all known or suspected hazards, including the presence of metal objects are constituents of the waste, have been disclosed.

Original Authorized Signature: Troy S Belka

Authoring Signature Date: 06-21-01

Recertification Date: 06-21-02

Recertification Letter Sent Date:

B-40

**LOW-LEVEL WASTE (LLW) PROFILE
(LRYFY01022)**

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Waste Characterization Summary
Waste Stream LRYFY01022
Revision 0

1.0 Origin of the Waste

This waste stream consists of remediation waste from Corrective Action Unit 254 (CAU 254), Area 25 Reactor-Maintenance Assembly and Disassembly (R-MAD) Decontamination Facility. The facility was used for decontamination of test-car hardware and tooling used in 1963 through 1973 as part of the Nuclear Rocket Development Station program. Subsequently the facility was used to decontaminate a military tank in the early 1980's. Contamination of the interior of the decontamination facility resulted from over spray of decontamination fluids from the outside pads onto the surrounding soil and decontamination pad openings. The waste generation processes include hot line operations and excavation of soil surrounding the decontamination pads, decontamination building and decontamination pad openings.

2.0 Quantity of Waste

This is an ongoing waste stream. The initial quantity of waste for FY2001 is approximately 70 cubic meters. Additional soil may be excavated in following fiscal years as the excavation sites are verified to meet the cleanup standards.

3.0 Waste Description

The waste stream consists of dry contaminated soil, and sampling and hotline compactible trash (e.g., personal protection equipment [PPE], tape, kimwipes, paper, plastic, plastic bags, etc.).

3.0 Waste Characterization Determination

Hazardous Waste Constituents

Process knowledge from an extensive corrective action investigation is used to characterize material for this waste stream. The U.S. Department of Energy Nevada Operations Office (DOE/NV) report *DOE/NV-619, Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, June 2000 (CADD)* contains the results of the corrective action investigation. The results of this investigation are summarized in the Executive Summary on pages ES-2 through ES-4 of the DOE/NV-619 report. Analytical data are found in Appendix A and Appendix D of the DOE/NV-619 report. Tier I, II and III data evaluation were completed and are documented in Appendix A of the DOE/NV-619 report.

The site investigation reports total chromium at 100 mg/kg in the east decontamination sump soils (Appendix D, page D-2). TCLP metals confirmatory sampling and analysis (presented in Waste Stream Profile LRY5LLFY01022, Table B-1) resulted in chromium below the RCRA characteristic level. Mixed low-level waste is segregated from this waste stream and will be handled separately.

Radionuclide Constituents

Process knowledge from an extensive corrective action investigation is used to characterize material for this waste stream. The CAU 254 CADD Appendix A contains the results (strontium 90, gamma spectrometry, isotopic plutonium and isotopic uranium analytical data) of the corrective action investigation.

The initial low-level waste generated from CAU254 consists of dry soils from the facility yard and decontamination pad opening soil. The characterization methods for these materials are summarized below. Detailed characterization documentation is found the appropriate Material Evaluation Form (MEF) worksheets.

Site investigation radionuclide concentrations reported in the CAU 254 CADD for bore hole and soil samples are used to develop scaling factors. Composite samples were taken for material excavated from the yard soil and analyzed according to the *Sampling and Analysis Plan, NTS, CAU 254, R-MAD Decontamination Facility, Rev. 0*. Gamma spectrometry for cesium 137 and scaling factors are used to characterize the soil excavated from the decontamination facility yard. Radionuclides with concentrations at background levels or less than one percent of the total activity are not reported on the waste stream profile.

The CAU 254 CADD analytical results are used to characterize the decontamination pad opening soil.

Remediation of this site is ongoing and additional waste forms will be characterized per the Bechtel Nevada (BN) organization procedure, *OP-2151.301, Radioactive Waste Evaluation* (OP-2151.301) and the appropriate waste characterization worksheets. Characterization details will be documented in the MEF records.

Free Liquids

Material consists of dry soils and compactible hotline trash that do not containing free liquids. The waste will be packaged in accordance with BN organization procedure, *OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS* (OP-2151.304) assuring no free liquids are contained in this waste. As waste is packaged, it will be visually inspected for free liquids.

Particulate

The current soils consist of dry sand and gravel. Since the soil may contain fine particulate material an exception to the NTSWAC is needed. Waste from the decontamination pad openings are contained in two 55-gallon drums and will be overpacked in 85-gallon drums in accordance with paragraph 3.1.6 of the NTSWAC.

Gases, Etiologic Agents, Chelating Agents, Explosives, Pyrophorics, and PCBs

None of the above are associated with this waste. The waste will be packaged in accordance with OP-251.304.

Nevada Test Site Waste Profile, Revision 3, 12/2000

A. Generator Information

1. WCO Phillip Ralphs Phone 295-5685 FAX 295-6369
 2. Technical Contact Harry Perry Phone 295-0685 FAX 295-4815
 3. DOE Contact Kenneth Small Phone 295-1933 FAX 295-1153
 4. Facility Name Bechtel Nevada
 Address P.O. Box 98521
 City Las Vegas State NV Zip 89193-8521
 5. EPA Identification Number NV3890090001

B. General Waste Stream Information

1. Waste Stream Identification Number LRYSLLFY01022
 Profile Revision Number 0 Profile Revision Date September 10, 2001
 2. Title of Waste Stream Area 25, R-MAD Decontamination Facility
 3. Waste Category ☒ Low-Level ☐ Mixed Low-Level (Generated within Nevada only)
☐ "Classified Waste" ☐ 11(e)2 By-product Material (Small Quantities)
☐ CERCLA waste ☐ Asbestiform Low-Level Waste

4. Generating Process Description

This waste stream is a result of remediation of Corrective Action Unit 254 (CAU 254), Area 25 Reactor-Maintenance Assembly and Disassembly (R-MAD) Decontamination Facility. This facility was used for the decontamination of test-car hardware and tooling used in 1963 through 1973 as part of the Nuclear Rocket Development Station program. Subsequently the facility was used to decontaminate a military tank in the early 1980s. Specific processes from which this waste stream are generated include excavation of contaminated soils outside the decontamination building and around exterior decontamination pads, hand excavation of dry soil from the exterior decontamination pad openings, and sampling and hotline operations. The waste stream consists of dry contaminated soil and compactible trash (e.g., personal protection equipment [PPE], tape, kimwipes, paper, plastic, plastic bags, etc.).

☐ Yes ☒ No Process description continuation page attached?

☐ Yes ☒ No Flow diagram attached?

5. Estimated Rate of Generation ☐ One Time Only _____ m³
☒ Ongoing 70 m³/yr

6. Reasons for Submittal (specify one)

☒ New Waste Stream
☐ Modification to Waste Stream

7. ☒ Yes ☐ No Does this waste stream require a WAC deviation? Attach information.

C. Physical Properties

1. Waste Form Description ☒ Solid ☐ Solidified ☐ Encapsulated ☐ Sludge
☐ Powder/Dust ☐ Sealed Source ☐ Absorbed Liquid ☐ Other
 2. List Waste Stream Components Estimated Percent by :
☒ Volume ☐ Weight
Soil 95
Compactible Trash 5

☐ Yes ☒ No Component continuation page attached?

3. The final waste form must comply with the following criteria as defined in the WAC. List documentation that demonstrates WAC compliance for each.

Free Liquids	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Particulates	<u>See attached NTS WAC deviation</u>
Gases	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Etiologic Agents	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Chelating Agents	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Polychlorinated Biphenyls	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Explosives	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Pyrophorics	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Asbestiform Low-Level Waste	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Radioactive Animal Carcasses	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Beryllium Dust	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
DOE Equivalent Greater-Than-Class C Packages	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Other	<u>N/A</u>

D. RCRA Characterization

1. RCRA characterization by:
Check all that apply
- ☒ Process Knowledge
☐ Sampling and Analysis for complete characterization
☒ Confirmatory Sampling and Analysis

List documents that control RCRA determinations.

OP-2151.301 with associated MEF Hazardous Waste Worksheet and Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada (DOE/NV-619). Confirmatory sampling and analysis was performed to determine TCLP metals for the east decontamination pad opening (see results presented in Table B-1).

2. If sampling and analysis was used, attach Table B-1 or an equivalent sample result summary that includes analytical results, upper confidence limits, and explanations of anomalies for all analytes analyzed. Include any state-specific analyte results.

3. ☐ Yes ☒ No Was the waste listed or characteristically hazardous as generated? EPA Code(s): _____

4. Does the final waste form exhibit any characteristics of hazardous waste as defined in Title 40 CFR 261?

- | | | |
|------------------------------|--|--------------|
| ☐ Yes | ☒ No | Ignitability |
| ☐ Yes | ☒ No | Corrosivity |
| ☐ Yes | ☒ No | Reactivity |
| ☐ Yes | ☒ No | Toxicity |
5. ☐ Yes ☒ No Is the final waste form listed as defined in Title 40 CFR 261? EPA Code(s): _____
6. ☐ Yes ☒ No Is the waste hazardous per state-of-generation regulations? If yes, identify hazardous components and state regulations.
7. ☐ Yes ☒ No Has the waste been treated? Attach information which verifies WAC compliance.
If yes, was the waste treated after August 24, 1998?
8. ☐ Yes ☒ No Is the final waste form mixed waste? If yes, attach information which verifies LDR compliance.

E. Radiological Properties

1. Radiological characterization by (check all that apply)

- ☒ Process Knowledge
 ☒ Sampling & Analysis
 ☐ Materials Control & Accountability
☒ Direct Measurement
 ☒ Gross Radiation Measurement
 ☒ Scaling Factors
☐ Other _____

2. Reference documents that describe the radiological characterization process.

Associated MEF Radioactive Waste Worksheet and Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, DOE/NV-619, June 2000.

3. Reference documents that describe the method of determining package activity.

Associated MEF Radioactive Waste Worksheet

4. List reportable radionuclides as defined in the WAC.

Radionuclide	Activity Range (Bq/m ³)		Activity Representative of Final Waste Form (Bq/m ³)
Cs-137	5.09E-06	t 9.53E-07 o	2.65E-07
Sr-90	4.99E-06	t 1.42E-08 o	3.82E-07
U-234	3.67E-06	t 2.15E-07 o	1.02E-07
U-235	2.14E-05	t 1.32E-06 o	6.19E-05
Pu-239	4.28E-04	t 1.98E-05 o	1.12E-05
Eu-154	1.50E-06	t 1.13E-07 o	3.79E-06
Nb-94	9.36E-05	t 4.47E-06 o	1.73E-06

Reportable Radionuclide continuation page attached? ☐ Yes ☒ No

5. ☐ Yes ☒ No Attach chemical form of radionuclide list if known. Page attached?

6. ☒ Yes ☐ No Does the waste contain any alpha-emitting transuranic radionuclides with a half-life greater than 5 years (Pu-241 or Cm-242)? If yes, list below.

Transuranic Nuclides	Activity Range (nCi/g)		Activity Representative of Final Waste Form (nCi/g)
Pu-239	5.76E-04	t 4.43E-03 o	2.00E-03
		t o	
		t o	

☐ Yes ☒ No Transuranic nuclide continuation page attached?

7. List documents that describe process(es) that controls TRU determinations and ensures TRU waste is not shipped for disposal. Associated MEF Radioactive Waste Worksheet.

8. ☒ Yes ☐ No Is enriched uranium present? If yes, provide enrichment of ^{235}U by weightpercent 71 %. Provide maximum mass of ^{235}U per package 306 g/package. Reference controlling documents.
See attached Criticality Safety Evaluation

F. Packaging Description

1. ☒ Yes ☐ No Does the container meet each of the package criteria as defined in the WAC?
List documentation that demonstrates WAC compliance.

Waste will be packaged and prepared for shipment according to procedure OP-2151.304. Waste packages will be inspected prior to certification and shipment according to procedure L-A20.014 and L-A20.015.

2. Container types (s) Drums (incl. 55-gal drums and 55-gal drums overpacked in 85-gal drums to meet particulate requirements), B25 Boxes, Burrito Wraps in Side Drums.

DOT Specification(s)/Descriptions(s) Strong Tight

3. a. Non-bulk container external dimensions (drums, boxes) 24" x 35" - 55gal drum, 27.75" x 40" - 85-gal drum, 52" x 47" x 73" - B25 Box

Does box meet 3,375 lb/ft³ strength test? ☒ Yes ☐ No

Weight Range 30 kg to 4090 kg

b. Bulk package external dimensions (cargo containers, roll-offs) N/A

Weight Range N/A kg to N/A kg

c. Bulk shipment dimensions (supersack, burrito wraps, equipment) As approved by the NTS, RWMS LLW Operations Supervisor on a case by case basis. Burrito Wraps: 101" top width, 32" bottom width, 40" high, 204" long.

Weight Range 6000 kg to 40000 kg

4. Estimated radiation dose rate of disposal package:

Surface 0.0002 to 0.005 mSv/h

One meter 0.0002 to 0.005 mSv/h

5. Reference special handling procedures and ALARA documentation, if appropriate.

G. Signature

To the best of my knowledge, the information in this document and attachments is true and accurate. Willful and deliberate omissions have not been made. All known and suspected hazardous materials have been disclosed.

Harry A. Perry
Technical Contact Printed Name

/s/ Harry Perry

Signature

9/6/01
Date

Philip M. Ralphs
WCO's Printed Name

/s/ Signature on file

Signature

9/14/01
Date

Table B-1
Waste Stream Number LRYFY01022
Analytical Results
East Decontamination Pad Sump Soil
Confirmatory Analysis

	Results Mg/L	Upper Confidence Level	
Barium	0.352	N/A	One sample taken.
Cadmium	0.218	N/A	One sample taken.
Chromium	0.0437	N/A	One sample taken.
Lead	0.377	N/A	One sample taken.
Mercury	0.0001	N/A	One sample taken.
Selenium	0.0302	N/A	One sample taken.
Silver	0.006	N/A	One sample taken.

NTSWAC DEVIATION, B.7.
Area 25, R-MAD Decontamination Facility
Particulates

Requirement: NTSWAC, Revision 3, Section 3.1.6, Particulates, requires that any waste containing more than 1 weight percent of less-than-10-micrometers-diameter particles, or 15 weight percent of less-than-200-micrometers-diameter particles be immobilized or placed in a secure package. Examples of acceptable packaging (i.e., 55-gal drums inside 85-gal drums) and steel boxes. Drums and wooden boxes with sealed 6-mil (minimum) liners and disposal containers with contents individually wrapped and sealed in plastic are acceptable.

Justification: The soil excavated from the Area 25, R-MAD, decontamination facility consists of a sandy gravel mixture of unknown weight percent of minus 10-micrometer and minus 200-micrometers diameter particles. The soil will be shipped in side dump truck trailers lined with plastic burrito wraps. The material in the four loaded side dump truck trailers was sprayed with water during the excavation and loading processes to control release of dust. This material was wrapped in 10 mil plastic burrito wraps which should retain this moisture. Additional moisture will be added to future loads. Visual inspection of the soil material during excavation and packing into burrito wrap lined trailers verifies that addition of moisture to dry soil for dust control does not result in free liquids.

Duration: This deviation is to encompass the duration to complete the remediation of the Area 25, R-MAD decontamination facility in FY2001. This project is also anticipated to carry over into the subsequent fiscal year. Additional waste may be generated during the cleanup verification phase of the project, requiring an extension into FY2002.

Corrective Action: There is no corrective action required.

Examination of Criticality Safety Issues Associated With the Disposal of Contaminated Soil from CAU-254

The following points are made in regard to the criticality safety of the contaminated soil from CAU-254:

- The soil is packaged in four bulk containers with a total volume of 145 cubic meters.
- The concentration of U-235 ranges from $3.5\text{E-}06$ to $1.1\text{E-}05$ gU-235/g_{soil} per package.
- The highest concentration of U-235 in a package, on a volume basis is 0.022 g/L, well below the DOT fissile exempt shipping level of 5 g/L.
- If the same soil were packaged in seventy 55-gal drums, the amount of U-235 per drum would be 4.4 g, and the drums could be disposed together with no concerns for criticality safety.
- Since the soil is packaged in a single container, although with the same volume as the seventy drums, the amount of U-235 in the package is 306 g, which triggers this examination of criticality safety.
- No amount of neutron moderation or reflection could make the 658 g total mass of U-235 dispersed in 145 cubic meters of soil a criticality safety concern.

9/10/01

Waste Stream Number LRYFY01022

References

Bechtel Nevada Organization Procedure, OP-2151.301, Radioactive Waste Evaluation, Rev. 0.

Bechtel Nevada Organization Procedure, OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS, Rev. 2.

Material Evaluation Form Folder No. F01022.

U.S. Department of Energy Report DOE/NV-619, Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, June 2000.

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**MIXED WASTE (MW) PROFILE
(LRY5MWFY01020)**

Waste Characterization Summary
Waste Stream LRY5MWFY01020
Revision 0

1.0 Origin of the Waste

This waste stream consists of remediation waste from Corrective Action Unit 254 (CAU 254), Area 25 Reactor-Maintenance Assembly and Disassembly (R-MAD) Decontamination Facility. The facility was used for decontamination of test-car hardware and tooling used in 1963 through 1973 as part of the Nuclear Rocket Development Station program. Subsequently the facility was used to decontaminate a military tank in the early 1980's. Contamination of the interior of the decontamination facility resulted from decontamination fluids on the inside and exterior concrete pads. Overspray of decontamination fluids contaminated the interior walls (transite wallboard), doors (wood and metal), piping, pipe elbows (friable asbestos), and equipment.

The waste generation processes include hot line operations, friable asbestos elbow removal, pipe removal, door removal, transite wallboard removal, door wood and insulation removal, and decontamination pad concrete debris/rebar.

2.0 Quantity of Waste

This is an ongoing waste stream. The initial quantity of waste for FY2002 is approximately 170 cubic meters.

3.0 Waste Description

The waste stream consists of hotline compactible trash (e.g., personal protection equipment [PPE], tape, kimwipes, paper, plastic, plastic bags, etc.) and building debris. The building debris consists of transite wallboard; friable asbestos insulated pipe elbows; non-ACM insulated pipes; wood and insulation removed from doors; metal doors; electrical equipment, conduit and wire; a turbulator tank; miscellaneous equipment; and concrete rubble and rebar.

4.0 Waste Characterization Determination

4.1 Hazardous Waste Constituents

Process knowledge (inc. sampling and analysis data) resulting from the corrective action investigation is used to characterize material for this waste stream. The U.S. Department of Energy Nevada Operations Office (DOE/NV) report *DOE/NV-619, Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination*

Facility, Nevada Test Site, Nevada, June 2000 (CADD) contains analytical results of the corrective action investigation.

The results of this investigation are summarized in the Executive Summary on pages ES-2 through ES-4 of the CADD. Analytical data for building materials (debris) are found in Appendix D of the CADD. Tier I, II and III data evaluation were completed and are documented in Appendix A of the CADD.

Toxicity Characteristic Waste

Total metals, total volatile organic compounds (VOCs), and total semi-volatile organic compounds (SVOCs) data found in Appendix A of the CADD are used primarily for toxicity characteristic determinations of the building debris.

Confirmatory samples of wood and insulation were taken in accordance with the *Sampling and Analysis Plan, Nevada Test Site, CAU 254, Area 25, R-MAD Decontamination Facility, Rev. 0, May 2001 (SAP)*. The confirmatory analytical results are summarized in Table B-1 of the LYS5MWFY01020 waste profile.

Calculated TCLP cadmium results for the south decon bay door and northwest decon bay door insulation samples are both reported at 0.95 mg/L cadmium (see attached Table 1). Confirmatory samples were taken from each door and analyzed for TCLP metals. The confirmatory sample TCLP analytical results are 0.407 and 0.117 mg/L (see attached table), respectively. Insulation from these two doors does not exhibit toxicity characteristic for cadmium per the 40 CFR 261.24, Table 1 regulatory levels.

The south decon bay door wood was sampled at a single location on the door during the site investigation and analyzed for TCLP metals. The TCLP cadmium result reported for the south decon bay door wood in the CADD is 4.7 mg/L. A representative sample of the entire door was taken and analyzed for TCLP to confirm the CADD reported value. The confirmatory sample TCLP analytical result is 0.0105 mg/L (see attached Table 1). Wood from this door does not exhibit toxicity characteristic for cadmium per the 40 CFR 261.24, Table 1 regulatory levels.

Listed Waste

The waste generator documented the anticipated listed waste codes in the DOE/NV *Corrective Action Plan for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, Rev0, December 2000 (DOE/NV-678)* section 2.3.6 Mixed Waste. These codes include acetone (F003), carbon disulfide (F005), ethylbenzene (F003), toluene (F005), 1,1,1-trichloroethane (F002), trichloroethene (F002), and xylenes (F003).

In accordance with the *Technical Guidance Memorandum, September 7, 1999, Interpretation of Hazardous Waste Regulations as They Apply to Potential Solvent*

Contaminated Waste from CAU 254 (RMAD Decon Facility). If detected the hazardous waste codes are to be assigned as follows:

Carbon Tetrachloride (2-Butanone)	F001
Trichloroethylene	F001
1,1,1-Trichloroethylene	F001
1,1,2-Trichloro-1,2,2,2-Tetrafluoroethane	F002

The *Corrective Action Plan for Corrective Action Unit 254: Decontamination Facility, Nevada Test Site, Nevada, December 2000 (DOE/NV-678 (CAP) section 2.3.6, Mixed Waste* lists acetone (F003), carbon disulfide (F005), ethylbenzene (F003), toluene (F005), 1,1,1-trichloroethane (F002), trichloroethene (F002), and xylene (F003) as listed waste. The F002 listed code compounds are also listed as F001 codes. The F001 code is used in this waste profile (LRY5MNFY01020).

Not all of the listed codes discussed above are detected in each building materials. All listed code compounds contained in building debris for this waste stream are at concentrations below the 40 CRF 268.40 treatment standards. The CADD site investigation analytical results are summarized in Table 1 of this WCS.

The first railroad tie outside and south of the decon bay door contains the following organic compounds (CADD, Appendix D) and waste codes from the above two lists:

Carbon Tetrachloride (2-Butanone)	F001
Trichloroethylene (Trichloroethene)	F001
1,1,1-Trichloroethane	F001
Acetone	F003
Ethylbenzene	F003
M+P-Xylene	F003
O-Xylene	F003
Carbon Disulfide	F005
Toluene	F003

Benzene is reported in the CADD from one concrete sample taken from the east decon samples. Benzene may carry a F005 waste code.

Not all of the building materials (debris) have each of these waste codes. Separation of the building debris into several waste streams is not practical. The reported concentrations of all of these organic compounds in the CADD, Appendix D are below the 40 CRF 268.40 Treatment Standards for Hazardous Waste and are not Land Disposal Restricted. The waste codes assigned to the LRY5MWFY01020 waste stream include F001, F003 and F005.

4.2 Radionuclide Constituents

Process knowledge from an extensive corrective action investigation is used to characterize material for this waste stream. The CAU 254 CADD Appendix D contains the results (strontium 90, gamma spectrometry, isotopic plutonium and isotopic uranium analytical data) of the corrective action investigation. The reported radionuclides include Cs-137, Sr-90, NB-94, Eu-154, U-234, U-235, U-238 and Pu-239. A summary of the site investigation process knowledge is found Table 2 of this WCS.

The transite wallboard and the friable asbestos covered pipe elbows and joints were not sampled during the site investigation or during waste characterization. Sampling of this waste material may have resulted in generation of asbestos fibers to the working environment and unnecessary exposure of workers to asbestos fiber. The transite wallboard and friable asbestos insulated pipe elbows and joints are on vertical interior surfaces of the decontamination facility. Overspray from decontamination activities are expected to result in higher concentration of contaminants in the concrete floor than the interior wall and pipe surfaces. The analytical results from the other building materials are used to characterize the materials.

Results shown in Table 2 of this report are used as process knowledge to calculate the radionuclide activities reported in profile #LYR5MWFY01020.

4.3 Free Liquids

The material consists of dry building debris and compactible hotline trash that does not contain free liquids. The waste was packaged in accordance with BN organization procedure, *OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS* (OP-2151.304) assuring no free liquids are contained in this waste. As waste is packaged, it is visually inspected for free liquids.

4.4 Fine Particulates

The material consists of dry building debris and compactible hotline trash that does not contain fine particulates. The waste was packaged in accordance with BN organization procedure, *OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS* (OP-2151.304) assuring no free liquids are contained in this waste. As waste is packaged, it is visually inspected for fine particulate.

4.5 Gases, Etiologic Agents, Chelating Agents, Explosives, Pyrophorics, and PCBs

The waste was packaged in accordance with BN organization procedure, *OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS* (OP-2151.304) assuring none of the above were included in with this waste.

Nevada Test Site Waste Profile, Revision 3, 12/2000

A. Generator Information

1. WCO Phillip Ralphs Phone 295-3685 FAX 295-6569
2. Technical Contact Harry Perry Phone 295-0685 FAX 295-4815
3. DOE Contact Kenneth Small Phone 295-1933 FAX 295-1153
4. Facility Name Bechtel Nevada
Address P.O. Box 98521
City Las Vegas State NV Zip 89193-8521
5. EPA Identification Number NV3890090001

B. General Waste Stream Information

1. Waste Stream Identification Number LRY5MWFY01020
Profile Revision Number 0 Profile Revision Date December 12, 2001
2. Title of Waste Stream Area 25, R-MAD Decontamination Facility - Mixed Waste
3. Waste Category ☐ Low-Level ☒ Mixed Low-Level (Generated within Nevada only)
☐ "Classified Waste" ☐ 11(e)2 By-product Material (Small Quantities)
☐ CERCLA waste ☐ Asbestiform Low-Level Waste

4. Generating Process Description

This waste stream is a result of remediation of Corrective Action Unit 254 (CAU 254), Area 25 Reactor-Maintenance Assembly and Disassembly (R-MAD) Decontamination Facility. This facility was used for the decontamination of test-car hardware and tooling used in 1963 through 1973 as part of the Nuclear Rocket Development Station program. Subsequently the facility was used to decontaminate a military tank in the early 1980s. Specific processes from which this waste stream are generated include removal of contaminated material from the decontamination building and the exterior decontamination pads, and hotline and CA operations. The waste stream consists of compactible trash (including, personal protection equipment [PPE], tape, kimwipes, paper, plastic, plastic bags, etc.), and building debris (including, concrete rubble w/ rebar and soil, wood doors and office benches, non-ACM insulation from the doors, non-ACM insulated piping, electrical equipment with associated conduit and wire, a turbulator tank, metal stairs, an overhead crane, and transite wallboard.

☐ Yes ☒ No Process description continuation page attached?
☐ Yes ☒ No Flow diagram attached?

5. Estimated Rate of Generation ☐ One Time Only _____ m³
☒ Ongoing 180 m³/yr

6. Reasons for Submittal (specify one)

☒ New Waste Stream
☐ Modification to Waste Stream

7. ☐ Yes ☒ No Does this waste stream require a WAC deviation? Attach information.

C. Physical Properties

1. Waste Form Description ☒ Solid ☐ Solidified ☐ Encapsulated ☐ Sludge
☐ Powder/Dust ☐ Sealed Source ☐ Absorbed Liquid ☐ Other
2. List Waste Stream Components Estimated Percent by :
☒ Volume ☐ Weight

See attach list.

☒ Yes ☐ No Component continuation page attached?

3. The final waste form must comply with the following criteria as defined in the WAC. List documentation that demonstrates WAC compliance for each.

Free Liquids	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Particulates	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Gases	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Etiologic Agents	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Chelating Agents	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Polychlorinated Biphenyls	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Explosives	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Pyrophorics	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Asbestiform Low-Level Waste	<u>OP-2151.304 / OP-2151.301 and associated MEF EPA REG worksheets</u>
Radioactive Animal Carcasses	<u>OP-2151.304 / OP-2151.301 and associated MEF NTSWAC worksheets</u>
Beryllium Dust	<u>OP-2151.304 / OP-2151.301 and Process Knowledge</u>
DOE Equivalent Greater-Than-Class C Packages	<u>OP-2151.304 / OP-2151.301 and associated MEF RAD worksheets</u>
Other	<u>N/A</u>

D. RCRA Characterization

1. RCRA characterization by :
Check all that apply

☒ Process Knowledge
☐ Sampling and Analysis for complete characterization
☒ Confirmatory Sampling and Analysis

List documents that control RCRA determinations.

OP-2151.301 with associated MEF Hazardous Waste Worksheet; Process Knowledge contained in Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada (DOE/NV-619); confirmatory Sampling and Analysis Plan.

2. If sampling and analysis was used, attach Table B-1 or an equivalent sample result summary that includes analytical results, upper confidence limits, and explanations of anomalies for all analytes analyzed. Include any state-specific analyte results. Confirmatory samples were analyzed for TCLP metals only. The results are reported in Table B-1. Process knowledge results, found in the CAU CADD Appendix D, are used for other hazardous constituent. A summary of the PK data are included in the CAU 254 CADD Building Debris Analytical Results Summary Table attached to Table B-1.

3. ☒ Yes ☐ No Was the waste listed or characteristically hazardous as generated? EPA Code(s): F001, F003, F005

4. Does the final waste form exhibit any characteristics of hazardous waste as defined in Title 40 CFR 261?

☐ Yes	☒ No	Ignitability
☐ Yes	☒ No	Corrosivity
☐ Yes	☒ No	Reactivity
☐ Yes	☒ No	Toxicity
5. ☒ Yes	☐ No	Is the final waste form listed as defined in Title 40 CFR 261? EPA Code(s): F001, F003, F005
6. ☐ Yes	☒ No	Is the waste hazardous per state-of-generation regulations? If yes, identify hazardous components and state regulations.
7. ☐ Yes	☒ No	Has the waste been treated? Attach information which verifies WAC compliance. If yes, was the waste treated after August 24, 1998?
8. ☒ Yes	☐ No	Is the final waste form mixed waste? If yes, attach information which verifies LDR compliance. Waste met treatment standards at the point of generation. Therefore, no further treatment is necessary to meet LDR compliance.

E. Radiological Properties

1. Radiological characterization by (check all that apply)

- ☒ Process Knowledge ☐ Sampling & Analysis ☐ Materials Control & Accountability
☐ Direct Measurement ☐ Gross Radiation Measurement ☐ Scaling Factors
☐ Other _____

2. Reference documents that describe the radiological characterization process.

Associated MFE Radioactive Waste Worksheet; Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, DOE/NV-619, June 2000 (CADD).

3. Reference documents that describe the method of determining package activity.

Associated MFE Radioactive Waste Worksheet

4. List reportable radionuclides as defined in the WAC.

Radionuclide	Activity Range (Bq/m ³)		Activity Representative of Final Waste Form (Bq/m ³)
<u>Cs-137</u>	<u>4.68E+03</u>	to <u>2.01E+07</u>	<u>4.43E+06</u>
<u>Sr-90</u>	<u>3.23E+04</u>	to <u>2.67E+07</u>	<u>3.76E+06</u>
<u>U-234</u>	<u>3.47E+03</u>	to <u>4.86E+06</u>	<u>9.01E+05</u>
<u>U-235</u>	<u>5.39E+03</u>	to <u>1.20E+05</u>	<u>3.83E+04</u>
<u>U-238</u>	<u>3.51E+03</u>	to <u>1.16E+05</u>	<u>3.31E+04</u>
<u>Pu-239</u>	<u>9.84E+02</u>	to <u>3.03E+04</u>	<u>6.89E+03</u>
<u>Eu-154</u>	<u>1.76E+04</u>	to <u>2.90E+05</u>	<u>9.27E+04</u>
<u>Nb-94</u>	<u>2.69E+03</u>	to <u>5.86E+04</u>	<u>1.58E+04</u>

Reportable Radionuclide continuation page attached? ☐ Yes ☒ No

5. ☐ Yes ☒ No Attach chemical form of radionuclide list if known. Page attached?

6. ☒ Yes ☐ No Does the waste contain any alpha-emitting transuranic radionuclides with a half-life greater than 5 years (Pu-241 or Cm-242)? If yes, list below.

Transuranic Nuclides	Activity Range (nCi/g)		Activity Representative of Final Waste Form (nCi/g)
<u>Pu-239</u>	<u>4.2E-05</u>	to <u>1.3E-03</u>	<u>2.9E-04</u>
_____	_____	to _____	_____
_____	_____	to _____	_____

☐ Yes ☒ No Transuranic nuclide continuation page attached?

7. List documents that describe process(es) that controls TRU determinations and ensures TRU waste is not shipped for disposal. Associated MFE Radioactive Waste Worksheet.

8. ☒ Yes ☐ No Is enriched uranium present? If yes, provide enrichment of ²³⁵U by weightpercent 15 %. Provide maximum mass of ²³⁵U per package 21 g/package. Reference controlling documents. See attached Criticality Safety Evaluation

F. Packaging Description

1. ☒ Yes ☐ No Does the container meet each of the package criteria as defined in the WAC?

List documentation that demonstrates WAC compliance.

Waste packaged and prepared for shipment according to procedure OP-2151.304. Waste packages will be inspected prior to certification and shipment according to procedure L-A20.014 and OP-3200.013.

2. Container types (s) Drums (incl. 30-gal & 55-gal drums), and B25 Boxes
DOT Specification(s)/Description(s) Strong Tight
3. a. Non-bulk container external dimensions (drums, boxes) 24" x 18" 30-gal drum, 24" x 35" -55gal drum, 52" x 47" x 73" - B25 Box

Does box meet 3,375 lb/ft² strength test?

☒ Yes ☐ No

Weight Range 30 kg to 4090 kg

- b. Bulk package external dimensions (cargo containers, roll-offs) Cargo containers (20' x 8' x 8'), roll-offs (23' x 7' x 7', 22' x 8' x 5 1/2'), wood boxes 8 1/2' x 4 1/2' x 3 1/2')

Weight Range 725 kg to 28000 kg

- c. Bulk shipment dimensions NA

Weight Range NA kg to NA kg

4. Estimated radiation dose rate of disposal package:

Surface 0.0002 to 0.005 mSv/h

One meter 0.0002 to 0.005 mSv/h

5. Reference special handling procedures and ALARA documentation, if appropriate.

G. Signature

To the best of my knowledge, the information in this document and attachments is true and accurate. Willful and deliberate omissions have not been made. All known and suspected hazardous materials have been disclosed.

Harry A. Perry
Technical Contact Printed Name

/s/ Harry Perry

Signature

12/13/01
Date

Philip M Ralphs
WCO's Printed Name

/s/ Signature on file

Signature

12/13/01
Date

**Table B-1
Analytical Results**

	Statistical Mean (mg/L)	Upper Confidence Level		Statistical Mean (mg/L)	Upper Confidence Level
TCLP Metals:			TCLP Semivolatiles:		
Arsenic	0.036	0.046	o-Cresol	PK/CADD	
Barium	0.347	0.670	p-Cresol	PK/CADD	
Cadmium	0.178	0.589	m-Cresol	PK/CADD	
Chromium	0.0345	0.0927	Cresol	PK/CADD	
Lead	0.0535	0.0970	Dinitrotoluene	PK/CADD	
Mercury	0.00043	0.00124	Hexachlorobenzene	PK/CADD	
Selenium	0.0349	0.0349	Hexachloro-1,3-butadiene	PK/CADD	
Silver	0.0032	0.0040	Nitrobenzene	PK/CADD	
TCLP Volatiles:			Pentachlorophenol	PK/CADD	
Benzene	PK/CADD		2,4,5-Trichlorophenol	PK/CADD	
Carbon Tetrachloride	PK/CADD		2,4,6-Trichlorophenol	PK/CADD	
Chlorobenzene	PK/CADD		Hexachloroethane	PK/CADD	
Chloroform	PK/CADD		TCLP Pesticides and Herbicides:		
1,4-Dichlorobenzene	PK/CADD		Chlordane	PK/CADD	
1,2-Dichloroethane	PK/CADD		2,4 - D	PK/CADD	
Methyl ethyl ketone	PK/CADD		Endrin	PK/CADD	
Pyridine	PK/CADD		Heptachlor and Hydroxide	PK/CADD	
Tetrachloroethylene	PK/CADD		Lindane	PK/CADD	
Trichloroethylene	PK/CADD		Methoxychlor	PK/CADD	
Vinyl chloride	PK/CADD		Toxaphene	PK/CADD	
Dichloroethylene	PK/CADD		2,4,5 - TP (Silvex)	PK/CADD	

Note: See attached table, (CAU 254 CADD, Building Debris Analytical Results Summary , Waste Stream ID #'s LRY5MWFY01020 and LRY5MWFY01021) for a summary of CADD process knowledge information.

CAU 254 CADD
Building Debris
Analytical Results Summary
Waste Stream ID #'s LRY5MWFY01020 and LRY5MWFY01021

		Concrete		Wood		Insulation		Railroad Tie	
		Statistical	Upper	Statistical	Upper	Statistical	Upper	Statistical	Upper
		Mean	Confidence	Mean	Confidence	Mean	Confidence	Mean	Confidence
		(mg/L)	Level	(mg/L)	Level	(mg/L)	Level	(mg/L)	Level
TCPL Volatiles:									
Benzene	71-43-2	0.0056	(2)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Carbon Tetrachloride	56-23-5	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Chlorobenzene	108-90-7	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Chloroform	67-66-3	0.0094	0.036	(0.002)	(1)	(0.0003)	(1)	(0.00004)	(1)
1,4-Dichlorobenzene	106-46-7	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
1,2-Dichloroethane	107-06-2	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.00004)	(1)
Methyl ethyl ketone	78-93-3	(0.001)	(1)	(0.01)	(1)	(0.01)	(1)	0.003	(2)
Pyridine	110-86-1	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Tetrachloroethylene	127-18-4	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)
Trichloroethylene	79-01-6	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	0.001	(2)
Vinyl chloride	75-01-4	(0.0003)	(1)	(0.01)	(1)	(0.01)	(1)	(0.0006)	(1)
Dichloroethylene	107-06-2	(0.0003)	(1)	(0.0003)	(1)	(0.0003)	(1)	(0.5)	(1)
TCPL Semivolatiles:									
o-Cresol	95-48-7	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
p-Cresol	108-39-4	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	2.0	(2)
m-Cresol	106-44-5		(3)		(3)		(3)		(3)
Cresol	1319-77-3		(3)		(3)		(3)		(3)
2,4-Dinitrotoluene	121-14-2	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Hexachlorobenzene	118-74-1	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Hexachlorobutadiene	87-68-3	(0.0003)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Nitrobenzene	98-95-3	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Pentachlorophenol	87-66-5	(0.09)	(1)	(2.7)	(1)	(0.9)	(1)	(2.5)	(1)
2,4,5-Trichlorophenol	95-95-4	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(2.5)	(1)
2,4,6-Trichlorophenol	88-06-2	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
Hexachloroethane	67-72-1	(0.02)	(1)	(0.55)	(1)	(1.8)	(1)	(0.5)	(1)
TCPL Pesticides and Herbicides:									
Chlordane	57-74-9		(3)		(3)		(3)		(3)
2,4-D	94-75-7		(3)		(3)		(3)		(3)
Endrin	72-20-8		(3)		(3)		(3)		(3)
Heptachlor epoxide	76-44-8		(3)		(3)		(3)		(3)
Lindane	58-89-9		(3)		(3)		(3)		(3)
Methoxychlor	72-43-5		(3)		(3)		(3)		(3)
Toxaphene	8001-35-2		(3)		(3)		(3)		(3)
2,4,5-TP (Silvex)	93-72-1		(3)		(3)		(3)		(3)

Note 1: "Total and TCPL Pesticides were not detected at concentrations above the minimum reporting limits in soil or building material sampled" during the site investigation CAU 254 CADD, Executive Summary, page EA-3.

Note 2: The analytical data shown in this table (mg/L) were determined by dividing the totals data in ug/kg by 20.

- (1) detection limit
- (2) detected in only one sample
- (3) not analyzed

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January 15, 2002

C-2 Table

Area 25, R-MAD Decontamination Facility

Profile #LRY5MWFY01020

List of Waste Stream Components

Estimated Percent by Volume

<u>Waste Stream Component</u>	<u>Percent by Volume</u>
Concrete debris w/ rebar and gravel	65
Wood debris	9
Non-ACM insulation	5
Hotline trash, PPE	7
Scrap metal, inc. Non-ACM insulated pipe	12
Transite wallboard	2

Waste Stream Number LRY5MWFY01020

References

Bechtel Nevada Organization Procedure, OP-2151.301, Radioactive Waste Evaluation, Rev. 0.

Bechtel Nevada Organization Procedure, OP-2151.304, Radioactive Waste Tracking, Handling, and Management at the NTS, Rev. 2.

Material Evaluation Form Folder No. F01020.

U.S. Department of Energy Report DOE/NV-619, Corrective Action Decision Document for Corrective Action Unit 254: Area 25 R-MAD Decontamination Facility, Nevada Test Site, Nevada, June 2000.

**Examination of Criticality Safety Issues
Associated With the Disposal of Contaminated Debris
From CAU-254**

The following points are made in regard to the criticality safety of the contaminated building debris from CAU-254:

- The debris is packaged in containers with a total volume of 164 cubic meters.
- The concentration of U-235 ranges from 1.1E-07 to 2.4E-06 gU-235/gdebris per package.
- The highest concentration of U-235 in a package, on a volume basis is 6.7E-07 g/L, well below the DOT fissile exempt shipping level of 5 g/L.
- If the package of debris with the highest amount of U-235 was packaged in 55-gal drums, the amount of U-235 per drum would be 1.4E-04 g, and the drums could be disposed together with no concerns for criticality safety.
- Since the debris is packaged in a single container, although with the same volume as the drums, the amount of U-235 in the package is 21 g, which triggers this examination of criticality safety.
- No amount of neutron moderation or reflection could make the 78 g total mass of U-235 dispersed in 164 cubic meters of debris a criticality safety concern.

/s/ Larry Hatcher

Larry Hatcher, CHP
11/12/01

Land Disposal Restrictions Notification and Restriction
Waste Stream # LRY5MWFY01020
Area 25, R-MAD Decontamination Facility – Mixed Waste

Generator Name: Bechtel Nevada for U.S. DOE			Manifest No.:	
Pursuant to 40 CFR §268.7(a), I hereby notify this shipment contains waste restricted under 40 CFR Part 268 Land Disposal Restrictions (LDR).				
WASTE NOTIFICATION				
Form Line No.	EPA Waste Codes	NWW	WW	Waste Constituent Notification
1	F001 - spent halogenated solvent use in degreasing	X		1,1,1-Trichloroethylene
2	F001 - spent halogenated solvent solvent use in degreasing	X		Trichloroethylene
3	F003 - spent halogenated solvent	X		Acetone
4	F003 - spent halogenated solvent	X		Ethyl Benzene
5	F003 - spent halogenated solvent	X		Xylene (total)
6	F005 - spent halogenated solvent	X		Carbon Disulfide
7	F005 - spent halogenated solvent	X		Benzene
8	F005 - spent halogenated solvent	X		Toluene
9	F005 - spent halogenated solvent	X		Methyl ethyl ketone
WASTE CERTIFICATION				
Waste meeting treatment standard at the point of generation. I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268 subpart D. I believe that the information I submitted is true accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment. <i>Reference 40 CFR §268.7(a)(3)(I).</i>				
/s/ Harry Perry		<i>Harry A. Perry</i>		12/13/01
Generator's signature		Print/type name and title		Date

Table 1
Process Knowledge and Confirmatory Summary
CAU 254, Analytical Results for Hazardous Waste Determination

Sample Location	Sample Number	Sample Matrix	Ascorbic 1200 (mg/kg)	TPH/MORO (mg/kg)	Acetone (mg/kg)	Benzene (mg/kg)	Carbon Disulfide (mg/kg)	Toluene (mg/kg)	P- Isopropyl alcohol (mg/kg)	4-Methyl- 2-Pentanol (mg/kg)	4-Methylph- enol (mg/kg)	Bis(2-Ethyl- hexyl) Phthalate (mg/kg)	Dibutyl Phthalate (mg/kg)	Chlorofor- m (mg/kg)	Naphthalene (mg/kg)	Phenol (mg/kg)	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)		
Process Knowledge Data																										
W. Decon Pad	25400545	Concrete	3.00	31																						
E. Decon Pad	25400518	Concrete	0.81	38		0.0056															0.12					
E. Decon Bay Floor	25400548	Concrete	0.75	818	0.005							1.80				0.5										
E. Decon Pad	25400562	Concrete	0.002	40								2.80														
E. Decon Pad	25400563	Concrete	8.160	186	0.028							1.90								0.15				0.054		
E. Decon Bay Floor	25400542	Concrete	0.77	32	0.082							8.36	0.850													
SW Floor Near Turb. Tank	25400558	Concrete	2.40	67	0.28							2.00		0.0280	0.0083											
NE Decon Bay Floor	25400525	Concrete	0.28		0.071																					
NW Decon Bay Floor	25400530	Concrete	0.85											0.0073												
Average			1.01	124	0.11	0.0050						1.66	0.850	0.017	0.0083	0.5			0.15	0.12	0.054					
2 Standard Deviations			2.03	351	0.19							1.83		0.028												
Aug ± 2SD			3.04	475	0.31							3.31		0.043												
Bench																										
S. Decon Bay Door	25400519	Wood	0.33	385	0.84			0.78	0.087																	
SE Decon Bay Door	25400514	Wood	1.40	200	0.36				0.120	0.25										4.70	0.42	0.30				
NW Decon Bay Door	25400520	Wood	0.65	190					0.120		11.00	2.10								0.18						
Average			0.80	218	0.44			0.78	0.09	0.25	11.00	28								0.41		0.070				
2 Standard Deviations			0.81	203	0.74				0.07			75								1.76	0.42	0.19				
Aug ± 2SD			1.71	426	1.18				0.16			103								6.05		0.50				
S. Sec. Of E. Decon Bay Door																										
S. Decon Bay Door	25400523	Insulation	1.80									140	43							0.18	0.18	0.305				
SE Decon Bay Door	25400528	Insulation	3.60			0.082						98							0.85	0.85	0.055	3.1				
NW Decon Bay Door	25400524	Insulation	2.70									140						0.055	0.485	0.95	0.405	2.7				
Average			2.63			0.062						115	43					0.055	0.826	0.887	0.207	1.64				
2 Standard Deviations			2.08									85							0.620	0.812	0.350	3.02				
Aug ± 2SD			4.64									201							1.28	1.60	0.568	5.06				
Confirmatory Data																										
S. Decon Bay Door	WC01000021	Insulation															0.9340	0.454	0.407	0.0181	0.0747	0.00089	0.0349	0.0031		
SE Decon Bay Door	WC01000022	Wood															0.0419	0.181	0.011	0.0681	0.0545	0.00012	0.0349	0.0020		
NW Decon Bay Door	WC01000023	Insulation															0.0321	0.426	0.117	0.0172	0.0312	0.00027	0.0349	0.0030		
Average																	0.036	0.347	0.178	0.0345	0.0535	0.00043	0.0349	0.0032		
2 Standard Deviations																	0.010	0.323	0.410	0.0583	0.0435	0.00082	0.0000	0.0008		
Aug ± 2SD																	0.046	0.670	0.509	0.0927	0.0870	0.00124	0.0340	0.0040		

Note: The CADD south decon bay door wood sample (25400519) result for cadmium (4.7 mg/L) is not used for toxicity characteristic waste determination. The cadmium results (0.0105 mg/L) for the confirmatory sample (WC01000022) representative of the entire door wood is used for toxicity characteristic waste determination.

Note: Only results above detection limits are reported in the CADD.

Table 2
Process Knowledge Summary
CAU 254, Analytical Results for Radiological Determination

Sample Location	Sample Number	Sample Matrix	Ca-137		Sr-90		Co-60		Nb-94		Eu-154		U-234		U-235		U-238		Pu-239	
			(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-	(pCi/g)	Error +/-
Process Knowledge Data																				
E. Decon Pad	25400518	Concrete	27.8	4.8	22.0	4.0	0.130	0.064	0.20	0.06			3.81	0.61	0.34	0.11	0.66	0.16	0.09	0.05
E. Decon Bay Floor	25400548	Concrete	184.0	27.0	1006.0	180.0	0.189	0.088	0.75	0.19	2.97	0.78	84.6	9.3	3.67	0.80	1.21	0.28	0.65	0.17
E. Decon Pad	25400562	Concrete	12.6	2.1	8.0	1.6	0.187	0.076					2.23	0.3	0.191	0.048	0.585	0.083		
E. Decon Pad	25400563	Concrete	219.0	36.0	20.5	37.0	0.233	0.085	0.33	0.12			205.0	2.6	1.42	0.20	0.84	0.13	0.306	0.069
E. Decon Bay Floor	25400542	Concrete	479.0	79.0	296.0	54.0	0.237	0.084	0.45	0.15	2.12	0.92	41.6	5.9	2.09	0.38	0.70	0.17	0.323	0.070
SW Floor Near Turb. Tank	25400558	Concrete	183.0	27.0	237.0	43.00			0.31	0.12	1.19	0.44	65.3	8.9	3.17	0.42	1.83	0.26	0.35	0.10
NE Floor	25400525	Concrete	0.33	0.13	1.0	0.39							0.67	0.18	0.52	0.14	0.52	0.14		
Bench	25400522	Wood	1.67	0.34									0.22	0.07						
S. Decon Bay Door	25400519	Wood	661.0	83.0	81.0	16.0	0.780	0.250	0.63	0.33			20.60	2.60	1.32	0.23	0.22	0.07	0.157	0.058
SE Decon Bay Door	25400514	Wood	13.8	2.7	74.0	13.0							20.80	2.80	1.46	0.25	0.368	0.085	0.169	0.057
NW Decon Bay Door	25400520	Wood	61.0	10.0	148.0	26.0							90.0	13.0	4.41	0.73	0.62	0.15	0.235	0.070
S. Sec. of E. Decon Bay Door	25400523	Insulation			2.21	0.61					4.6	1.6	7.8	1.1	0.69	0.14	4.32	0.64		
S. Decon Bay Door	25400526	Insulation	55.00	10.00	3.64	0.78							5.04	0.73	0.297	0.083	3.72	0.55		
NW Decon Bay Door	25400524	Insulation											4.07	0.60	0.258	0.077	3.71	0.55		
1st Railroad Tie	25400552	Wood	740.0	120.0	191.0	34.0			1.86	0.64	9.0	3.4	53.7	8.0	3.27	0.56	0.58	0.16	0.37	0.10
Average			189.2		160.4		0.283		0.68		3.08		38.5		1.64		1.41		0.28	
Low Range			0.2		1.4		0.484		0.12		0.75		0.1		0.23		0.15		0.04	
High Range			890.0		1160.0		0.776		2.50		12.4		207.6		6.14		4.98		1.29	
Report Radionuclide (Yes/No)			Yes		Yes		No		Yes		Yes		Yes		Yes		Yes		Yes	

Note: Only results for radionuclides reported in the CADD are included.

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CAU 254, Mixed Waste
Profile Activity

	Waste Mass (kg)	Waste Volume (m ³)	Cs-137		Sr-90		Nb-94		Eu-154		U-234		U-235		U-238		Pu-239	
			(pCi/g)	Bq/m ³	(pCi/g)	Bq/m ³	(pCi/g)	Bq/m ³	(pCi/g)	Bq/m ³	(pCi/g)	Bq/m ³	(pCi/g)	Bq/m ³	(pCi/g)	Bq/m ³	(pCi/g)	Bq/m ³
	103813	184																
Average			189.2	4.43E+06	160.4	3.76E+06	0.678	1.58E+04	3.96	9.27E+04	36.5	9.01E+05	1.84	3.85E+04	1.41E+00	3.31E+04	0.294	6.89E+03
Low Range			0.2	4.66E+03	1.36	3.23E+04	0.115	2.69E+03	0.75	1.76E+04	0.148	3.47E+03	0.23	5.39E+03	1.50E-01	3.51E+03	0.042	9.84E+02
High Range			660	2.01E+07	1180	2.76E+07	2.5	5.86E+04	12.4	2.90E+06	207.6	4.86E+06	5.14	1.20E+05	4.96E+00	1.16E+05	1.293	3.03E+04
Calculation Example: Bq/m ³ = Activity (pCi/g) * Waste Mass (kg) * 1000 g/kg * 0.037 Bq/pCi / Waste Volume (m ³)																		

First Rail Road Tie South of the Decontamination Bay
CAU 254, Area 25 R-MAD Decontamination Facility
Sample #25400552

Parameter	Result (ug/kg)	Calculated TCPL Results (mg/L)
Aroclor 1260	3400	
Acetone	1300	
2-Butanone	59	0.0030
Carbon Disulfide	13	0.00065
Ethylbenzene	8.8	0.00044
P-Isopropyltoluene	65	0.0033
Naphthalene	32000	1.6
Trichloroethene	20	0.001
4-Methyl-2-Pentanone	25	0.0013
1,1,1-Trichloroethane	170	0.0085
1,2,4-Trimethylbenzene	50	0.0025
1,3,5-Trimethylbenzene	18	0.0009
Toluene	160	0.008
M+P-Xylene	10	0.0005
O-Xylene	9	0.00045
2-Methylphenol		0.47
3+4-Methylphenol		2.03

Note: All of the above results have a "J" qualifier, meaning estimated.
The only exception is 3+4-Methylphenol (m-cresol + p-cresol).

Harry A. Perry
November 19, 2001

B-73

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APPENDIX C

VERIFICATION SAMPLES ANALYTICAL DATA

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APPENDIX C

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2669-15	88-95

CONCRETE AND SEDIMENT VERIFICATION SAMPLES

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Sample Delivery Group 1173

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PolyChlorinated Biphenyls (PCBs)

NEL LABORATORIES

Reno • Las Vegas • Boise
Phoenix • Sacramento

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, Nevada 89030
702-657-1010 • Fax: 702-657-1577
1-888-368-3282

CLIENT: Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521
ATTN: Ted Redding

PROJECT NAME: V1173
PROJECT NUMBER: 23081

NEL ORDER ID: L0106265

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 6/21/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Some results have been flagged as follows:

Jc - This concentration may be biased because the continuing calibration verification (CCV) standard did not meet QC requirements for this analyte. However, overall CCV standard recoveries meet method requirements and analytical results are in control.

/s/ Signature on file

Stan Van Wageningen
Laboratory Manager

7/5/01
Date

CERTIFICATIONS:

	Reno	Las Vegas	S. California
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	Reno	Las Vegas	S. California
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

NEL LABORATORIES

CLIENT:	Bechtel Nevada	CLIENT ID:	25400548-V1
PROJECT ID:	V1173	DATE SAMPLED:	6/20/01
PROJECT #:	23081	NEL SAMPLE ID:	L0106265-01
TEST:	PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996		
METHOD:	EPA 8082	ANALYST:	JRW - Las Vegas Division
MATRIX:	Solid	EXTRACTED:	6/22/01
DILUTION:	1	ANALYZED:	6/25/01

PARAMETER	Result	Reporting Limit
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	1600 ± µg/kg	20. µg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Decachlorobiphenyl	118	46 - 155
Tetrachloro-m-xylene	107	49 - 140

ND - Not Detected

This report shall not be reproduced except in full, without the written approval of the laboratory.

NEL LABORATORIES

CLIENT:	Bechtel Nevada	CLIENT ID:	25400547-V1
PROJECT ID:	V1173	DATE SAMPLED:	6/20/01
PROJECT #:	23081	NEL SAMPLE ID:	L0106265-02
TEST:	PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996		
METHOD:	EPA 8082	ANALYST:	JRW - Las Vegas Division
MATRIX:	Solid	EXTRACTED:	6/22/01
DILUTION:	1	ANALYZED:	6/25/01

PARAMETER	Result	Reporting Limit
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	ND	20. µg/kg
	950 ± µg/kg	20. µg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Decachlorobiphenyl	110	46 - 155
Tetrachloro-m-xylene	104	49 - 140

ND - Not Detected

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NEL LABORATORIES

CLIENT:	Bechtel Nevada	CLIENT ID:	25400546-V1
PROJECT ID:	V1173	DATE SAMPLED:	6/20/01
PROJECT #:	23081	NEL SAMPLE ID:	L0106265-03
TEST:	PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996		
METHOD:	EPA 8082	ANALYST:	JRW - Las Vegas Division
MATRIX:	Solid	EXTRACTED:	6/22/01
DILUTION:	1	ANALYZED:	6/25/01

PARAMETER	Result	Reporting Limit
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	740 ± µg/kg	20. µg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Decachlorobiphenyl	106	46 - 155
Tetrachloro-m-xylene	104	49 - 140

ND - Not Detected

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NEL LABORATORIES

CLIENT: Bechtel Nevada
PROJECT ID: V1173
PROJECT #: 23081

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 010622PCBS-BLK

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996
METHOD: EPA 8082
MATRIX: Solid

ANALYST: JRW - Las Vegas Division
EXTRACTED: 6/22/01
ANALYZED: 6/25/01

PARAMETER	Result	Reporting Limit
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	ND	20. µg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Decachlorobiphenyl	112	46 - 155
Tetrachloro-m-xylene	109	49 - 140

ND - Not Detected

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LEVEL 4

Page 1 of 1

BN-0732 (U298)

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Sample Delivery Group 1226

NEL LABORATORIES

Reno • Las Vegas
Phoenix • Boise

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, Nevada 89030
702-657-1010 • Fax: 702-657-1577
1-888-368-3282

CLIENT: Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521
ATTN: Ted Redding

PROJECT NAME: V1226
PROJECT NUMBER: 23081

NEL ORDER ID: L0108017

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 8/2/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Some results have been flagged as follows:

E - Concentration exceeded calibration range.

Some QA results have been flagged as follows:

J - This concentration should be considered an estimate due laboratory control sample failure.

J - The batch MS and/or MSD were outside acceptance limits. The batch LCS was acceptable.

Some surrogate results have been flagged as follows:

Sf - This surrogate was outside acceptance limits.

/s/ Signature on file

Stan VanWagenen /
Laboratory Manager

8/14/01
Date

CERTIFICATIONS:

	Reno	Las Vegas	S. California
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	Reno	Las Vegas	S. California
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

CLIENT: Hechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400000-VI
DATE SAMPLED: 7/30/01
NEL SAMPLE ID: L0108017-01

TEST: Volatile Organic Compounds by EPA 8260B, December 1996
METHOD: EPA 8260
MATRIX: Aqueous
DILUTION: 1

EXTRACTED: NA
ANALYZED: 8/6/01
ANALYST: DMH - Las Vegas Division

PARAMETER	Result µg/L	Reporting Limit	PARAMETER	Result µg/L	Reporting Limit
Acetone	ND	25. µg/L	1,1-Dichloropropene	ND	5. µg/L
Benzene	ND	5. µg/L	cis-1,3-Dichloropropene	ND	5. µg/L
Bromobenzene	ND	5. µg/L	trans-1,3-Dichloropropene	ND	5. µg/L
Bromochloromethane	ND	5. µg/L	Ethylbenzene	ND	5. µg/L
Bromodichloromethane	ND	5. µg/L	Hexachlorobutadiene	ND	5. µg/L
Bromoform	ND	5. µg/L	2-Hexanone	ND	25. µg/L
Bromomethane	ND	5. µg/L	Iodomethane	ND	5. µg/L
2-Butanone	ND	25. µg/L	Isopropylbenzene	ND	5. µg/L
n-Butylbenzene	ND	5. µg/L	p-Isopropyltoluene	ND	5. µg/L
sec-Butylbenzene	ND	5. µg/L	Methylene chloride (Dichloromethane)	ND	5. µg/L
tert-Butylbenzene	ND	5. µg/L	4-Methyl-2-pentanone	ND	25. µg/L
Carbon disulfide	ND	5. µg/L	MTBE	ND	5. µg/L
Carbon tetrachloride	ND	5. µg/L	Naphthalene	ND	10. µg/L
Chlorobenzene	ND	5. µg/L	n-Propylbenzene	ND	5. µg/L
Chloroethane	ND	5. µg/L	Styrene	ND	5. µg/L
Chloroform	ND	5. µg/L	1,1,1,2-Tetrachloroethane	ND	5. µg/L
Chloromethane	6.4	5. µg/L	1,1,2,2-Tetrachloroethane	ND	5. µg/L
2-Chlorotoluene	ND	5. µg/L	Tetrachloroethene (PCE)	ND	5. µg/L
4-Chlorotoluene	ND	5. µg/L	Toluene	ND	5. µg/L
Dibromochloromethane	ND	5. µg/L	1,2,3-Trichlorobenzene	ND	5. µg/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	10. µg/L	1,2,4-Trichlorobenzene	ND	5. µg/L
1,2-Dibromoethane (EDB)	ND	5. µg/L	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5. µg/L
Dibromomethane	ND	5. µg/L	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5. µg/L
1,2-Dichlorobenzene (o-DCB)	ND	5. µg/L	Trichloroethene (TCE)	ND	5. µg/L
1,3-Dichlorobenzene (m-DCB)	ND	5. µg/L	Trichlorofluoromethane (Freon 11)	ND	10. µg/L
1,4-Dichlorobenzene (p-DCB)	ND	5. µg/L	1,2,3-Trichloropropane	ND	5. µg/L
Dichlorodifluoromethane (Freon 12)	ND	5. µg/L	1,2,4-Trimethylbenzene	ND	5. µg/L
1,1-Dichloroethane (1,1-DCA)	ND	5. µg/L	1,3,5-Trimethylbenzene	ND	5. µg/L
1,2-Dichloroethane (1,2-DCA)	ND	5. µg/L	Vinyl chloride	ND	5. µg/L
1,1-Dichloroethene (1,1-DCE)	ND	5. µg/L	o-Xylene	ND	5. µg/L
cis-1,2-Dichloroethene	ND	5. µg/L	m,p-Xylene	ND	10. µg/L
trans-1,2-Dichloroethene	ND	5. µg/L			
1,2-Dichloropropane	ND	5. µg/L			
1,3-Dichloropropane	ND	5. µg/L			
1,2-Dichloropropane	ND	10. µg/L			

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
1-Bromofluorobenzene	97	76 - 111
Dibromofluoromethane	98	88 - 114
Toluene-d8	98	95 - 108

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400525-V1
DATE SAMPLED: 7/31/01
NEL SAMPLE ID: L0108017-02

TEST: Volatile Organic Compounds by EPA 8260B, December 1996

METHOD: EPA 8260

MATRIX: Solid

DILUTION: 1

EXTRACTED: NA

ANALYZED: 8/7/01

ANALYST: DMH - Las Vegas Division

PARAMETER	Result µg/kg	Reporting Limit	PARAMETER	Result µg/kg	Reporting Limit
Acetone	220 E	25. µg/kg	1,1-Dichloropropene	ND	5. µg/kg
Benzene	ND	5. µg/kg	cis-1,3-Dichloropropene	ND	5. µg/kg
Bromobenzene	ND	5. µg/kg	trans-1,3-Dichloropropene	ND	5. µg/kg
Bromochloromethane	ND	5. µg/kg	Ethylbenzene	ND	5. µg/kg
Bromodichloromethane	ND	5. µg/kg	Hexachlorobutadiene	ND	5. µg/kg
Bromoform	ND	5. µg/kg	2-Hexanone	ND	25. µg/kg
Bromomethane	ND	5. µg/kg	Iodomethane	ND	5. µg/kg
2-Butanone	ND	25. µg/kg	Isopropylbenzene	ND	5. µg/kg
n-Butylbenzene	ND	5. µg/kg	p-Isopropyltoluene	ND	5. µg/kg
sec-Butylbenzene	ND	5. µg/kg	Methylene chloride (Dichloromethane)	ND	5. µg/kg
tert-Butylbenzene	ND	5. µg/kg	4-Methyl-2-pentanone	ND	25. µg/kg
Carbon disulfide	ND	5. µg/kg	MTBE	ND	5. µg/kg
Carbon tetrachloride	ND	5. µg/kg	Naphthalene	ND	10. µg/kg
Chlorobenzene	ND	5. µg/kg	n-Propylbenzene	ND	5. µg/kg
Chloroethane	ND	5. µg/kg	Styrene	ND	5. µg/kg
Chloroform	ND	5. µg/kg	1,1,1,2-Tetrachloroethane	ND	5. µg/kg
Chloromethane	ND	5. µg/kg	1,1,2,2-Tetrachloroethane	ND	5. µg/kg
2-Chlorotoluene	ND	5. µg/kg	Tetrachloroethene (PCE)	ND	5. µg/kg
4-Chlorotoluene	ND	5. µg/kg	Toluene	7.6	5. µg/kg
Dibromochloromethane	ND	5. µg/kg	1,2,3-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromo-3-chloropropane (DBCP)	ND	10. µg/kg	1,2,4-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromoethane (EDB)	ND	5. µg/kg	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5. µg/kg
Dibromomethane	ND	5. µg/kg	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5. µg/kg
1,2-Dichlorobenzene (o-DCB)	ND	5. µg/kg	Trichloroethene (TCE)	ND	5. µg/kg
1,3-Dichlorobenzene (m-DCB)	ND	5. µg/kg	Trichlorofluoromethane (Freon 11)	ND	10. µg/kg
1,4-Dichlorobenzene (p-DCB)	ND	5. µg/kg	1,2,3-Trichloropropane	ND	5. µg/kg
Dichlorodifluoromethane (Freon 12)	ND	5. µg/kg	1,2,4-Trimethylbenzene	ND	5. µg/kg
1,1-Dichloroethane (1,1-DCA)	ND	5. µg/kg	1,3,5-Trimethylbenzene	ND	5. µg/kg
1,2-Dichloroethane (1,2-DCA)	ND	5. µg/kg	Vinyl chloride	ND	5. µg/kg
1,1-Dichloroethene (1,1-DCE)	ND	5. µg/kg	o-Xylene	ND	5. µg/kg
cis-1,2-Dichloroethene	ND	5. µg/kg	m,p-Xylene	ND	10. µg/kg
trans-1,2-Dichloroethene	ND	5. µg/kg			
1,2-Dichloropropane	ND	5. µg/kg			
1,3-Dichloropropane	ND	5. µg/kg			
2,2-Dichloropropane	ND	10. µg/kg			

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
4-Bromofluorobenzene	98	74 - 121
Dibromofluoromethane	10 Sf	80 - 120
Toluene-d8	97	81 - 117

ND - Not Detected

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C-10

CLIENT:	Bechtel Nevada	CLIENT ID:	25400559-V1
PROJECT ID:	V1226	DATE SAMPLED:	7/31/01
PROJECT #:	23081	NEL SAMPLE ID:	L0108017-04
TEST:	Volatile Organic Compounds by EPA 8260B, December 1996		
METHOD:	EPA 8260	EXTRACTED:	NA
MATRIX:	Solid	ANALYZED:	8/7/01
DILUTION:	1	ANALYST:	DMH - Las Vegas Division

PARAMETER	Result µg/kg	Reporting Limit	PARAMETER	Result µg/kg	Reporting Limit
Acetone	52	25. µg/kg	1,1-Dichloropropene	ND	5. µg/kg
Benzene	ND	5. µg/kg	cis-1,3-Dichloropropene	ND	5. µg/kg
Bromobenzene	ND	5. µg/kg	trans-1,3-Dichloropropene	ND	5. µg/kg
Bromochloromethane	ND	5. µg/kg	Ethylbenzene	ND	5. µg/kg
Bromodichloromethane	ND	5. µg/kg	Hexachlorobutadiene	ND	5. µg/kg
Bromoform	ND	5. µg/kg	2-Hexanone	ND	25. µg/kg
Bromomethane	ND	5. µg/kg	Iodomethane	ND	5. µg/kg
2-Butanone	ND	25. µg/kg	Isopropylbenzene	ND	5. µg/kg
n-Butylbenzene	ND	5. µg/kg	p-Isopropyltoluene	ND	5. µg/kg
sec-Butylbenzene	ND	5. µg/kg	Methylene chloride (Dichloromethane)	ND	5. µg/kg
tert-Butylbenzene	ND	5. µg/kg	4-Methyl-2-pentanone	ND	25. µg/kg
Carbon disulfide	ND	5. µg/kg	MTBE	ND	5. µg/kg
Carbon tetrachloride	ND	5. µg/kg	Naphthalene	ND	10. µg/kg
Chlorobenzene	ND	5. µg/kg	n-Propylbenzene	ND	5. µg/kg
Chloroethane	ND	5. µg/kg	Styrene	ND	5. µg/kg
Chloroform	ND	5. µg/kg	1,1,1,2-Tetrachloroethane	ND	5. µg/kg
Chloromethane	ND	5. µg/kg	1,1,2,2-Tetrachloroethane	ND	5. µg/kg
2-Chlorotoluene	ND	5. µg/kg	Tetrachloroethene (PCE)	ND	5. µg/kg
4-Chlorotoluene	ND	5. µg/kg	Toluene	ND	5. µg/kg
Dibromochloromethane	ND	5. µg/kg	1,2,3-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromo-3-chloropropane (DBCP)	ND	10. µg/kg	1,2,4-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromoethane (EDB)	ND	5. µg/kg	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5. µg/kg
Dibromomethane	ND	5. µg/kg	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5. µg/kg
1,2-Dichlorobenzene (o-DCB)	ND	5. µg/kg	Trichloroethene (TCE)	ND	5. µg/kg
1,3-Dichlorobenzene (m-DCB)	ND	5. µg/kg	Trichlorofluoromethane (Freon 11)	ND	10. µg/kg
1,4-Dichlorobenzene (p-DCB)	ND	5. µg/kg	1,2,3-Trichloropropane	ND	5. µg/kg
Dichlorodifluoromethane (Freon 12)	ND	5. µg/kg	1,2,4-Trimethylbenzene	ND	5. µg/kg
1,1-Dichloroethane (1,1-DCA)	ND	5. µg/kg	1,3,5-Trimethylbenzene	ND	5. µg/kg
1,2-Dichloroethane (1,2-DCA)	ND	5. µg/kg	Vinyl chloride	ND	5. µg/kg
1,1-Dichloroethene (1,1-DCE)	ND	5. µg/kg	o-Xylene	ND	5. µg/kg
cis-1,2-Dichloroethene	ND	5. µg/kg	m,p-Xylene	ND	10. µg/kg
trans-1,2-Dichloroethene	ND	5. µg/kg			
1,2-Dichloropropane	ND	5. µg/kg			
1,3-Dichloropropane	ND	5. µg/kg			
2,2-Dichloropropane	ND	10. µg/kg			

QUALITY CONTROL DATA:

Surrogate	% Recovery		Acceptable Range
4-Bromofluorobenzene	95		74 - 121
Dibromofluoromethane	3	Sf	80 - 120
Toluene-d8	97		81 - 117

ND - Not Detected

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CVI

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400549-V1
DATE SAMPLED: 7/31/01
NEL SAMPLE ID: L0108017-05

TEST: Volatile Organic Compounds by EPA 8260B, December 1996

METHOD: EPA 8260

MATRIX: Solid

DILUTION: 1

EXTRACTED: NA

ANALYZED: 8/7/01

ANALYST: DMH - Las Vegas Division

PARAMETER	Result µg/kg	Reporting Limit	PARAMETER	Result µg/kg	Reporting Limit
Acetone	81	25. µg/kg	1,1-Dichloropropene	ND	5. µg/kg
Benzene	ND	5. µg/kg	cis-1,3-Dichloropropene	ND	5. µg/kg
Bromobenzene	ND	5. µg/kg	trans-1,3-Dichloropropene	ND	5. µg/kg
Bromochloromethane	ND	5. µg/kg	Ethylbenzene	ND	5. µg/kg
Bromodichloromethane	ND	5. µg/kg	Hexachlorobutadiene	ND	5. µg/kg
Bromoform	ND	5. µg/kg	2-Hexanone	ND	25. µg/kg
Bromomethane	ND	5. µg/kg	Iodomethane	ND	5. µg/kg
2-Butanone	ND	25. µg/kg	Isopropylbenzene	ND	5. µg/kg
n-Butylbenzene	ND	5. µg/kg	p-Isopropyltoluene	ND	5. µg/kg
sec-Butylbenzene	ND	5. µg/kg	Methylene chloride (Dichloromethane)	ND	5. µg/kg
tert-Butylbenzene	ND	5. µg/kg	4-Methyl-2-pentanone	ND	25. µg/kg
Carbon disulfide	ND	5. µg/kg	MTBE	ND	5. µg/kg
Carbon tetrachloride	ND	5. µg/kg	Naphthalene	ND	10. µg/kg
Chlorobenzene	ND	5. µg/kg	n-Propylbenzene	ND	5. µg/kg
Chloroethane	ND	5. µg/kg	Styrene	ND	5. µg/kg
Chloroform	ND	5. µg/kg	1,1,1,2-Tetrachloroethane	ND	5. µg/kg
Chloromethane	ND	5. µg/kg	1,1,2,2-Tetrachloroethane	ND	5. µg/kg
2-Chlorotoluene	ND	5. µg/kg	Tetrachloroethene (PCE)	ND	5. µg/kg
4-Chlorotoluene	ND	5. µg/kg	Toluene	ND	5. µg/kg
Dibromochloromethane	ND	5. µg/kg	1,2,3-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromo-3-chloropropane (DBCP)	ND	10. µg/kg	1,2,4-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromoethane (EDB)	ND	5. µg/kg	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5. µg/kg
Dibromomethane	ND	5. µg/kg	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5. µg/kg
1,2-Dichlorobenzene (o-DCB)	ND	5. µg/kg	Trichloroethene (TCE)	ND	5. µg/kg
1,3-Dichlorobenzene (m-DCB)	ND	5. µg/kg	Trichlorofluoromethane (Freon 11)	ND	10. µg/kg
1,4-Dichlorobenzene (p-DCB)	ND	5. µg/kg	1,2,3-Trichloropropane	ND	5. µg/kg
Dichlorodifluoromethane (Freon 12)	ND	5. µg/kg	1,2,4-Trimethylbenzene	ND	5. µg/kg
1,1-Dichloroethane (1,1-DCA)	ND	5. µg/kg	1,3,5-Trimethylbenzene	ND	5. µg/kg
1,2-Dichloroethane (1,2-DCA)	ND	5. µg/kg	Vinyl chloride	ND	5. µg/kg
1,1-Dichloroethene (1,1-DCE)	ND	5. µg/kg	o-Xylene	ND	5. µg/kg
cis-1,2-Dichloroethene	ND	5. µg/kg	m,p-Xylene	ND	10. µg/kg
trans-1,2-Dichloroethene	ND	5. µg/kg			
1,2-Dichloropropane	ND	5. µg/kg			
1,3-Dichloropropane	ND	5. µg/kg			
2,2-Dichloropropane	ND	10. µg/kg			

QUALITY CONTROL DATA:

Surrogate	% Recovery		Acceptable Range
4-Bromofluorobenzene	78		74 - 121
Dibromofluoromethane	1	Sf	80 - 120
Toluene-d8	88		81 - 117

ND - Not Detected

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C-22

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400542-V1
DATE SAMPLED: 7/31/01
NEL SAMPLE ID: L0108017-06

TEST: Volatile Organic Compounds by EPA 8260B, December 1996

METHOD: EPA 8260

MATRIX: Solid

DILUTION: 1

EXTRACTED: NA

ANALYZED: 8/7/01

ANALYST: DMH - Las Vegas Division

PARAMETER	Result µg/kg	Reporting Limit	PARAMETER	Result µg/kg	Reporting Limit
Acetone	110	25. µg/kg	1,1-Dichloropropene	ND	5. µg/kg
Benzene	ND	5. µg/kg	cis-1,3-Dichloropropene	ND	5. µg/kg
Bromobenzene	ND	5. µg/kg	trans-1,3-Dichloropropene	ND	5. µg/kg
Bromochloromethane	ND	5. µg/kg	Ethylbenzene	ND	5. µg/kg
Bromodichloromethane	ND	5. µg/kg	Hexachlorobutadiene	ND	5. µg/kg
Bromoform	ND	5. µg/kg	2-Hexanone	ND	25. µg/kg
Bromomethane	ND	5. µg/kg	Iodomethane	ND	5. µg/kg
2-Butanone	ND	25. µg/kg	Isopropylbenzene	ND	5. µg/kg
n-Butylbenzene	ND	5. µg/kg	p-Isopropyltoluene	ND	5. µg/kg
sec-Butylbenzene	ND	5. µg/kg	Methylene chloride (Dichloromethane)	ND	5. µg/kg
tert-Butylbenzene	ND	5. µg/kg	4-Methyl-2-pentanone	ND	25. µg/kg
Carbon disulfide	ND	5. µg/kg	MTBE	ND	5. µg/kg
Carbon tetrachloride	ND	5. µg/kg	Naphthalene	ND	10. µg/kg
Chlorobenzene	ND	5. µg/kg	n-Propylbenzene	ND	5. µg/kg
Chloroethane	ND	5. µg/kg	Styrene	ND	5. µg/kg
Chloroform	ND	5. µg/kg	1,1,1,2-Tetrachloroethane	ND	5. µg/kg
Chloromethane	ND	5. µg/kg	1,1,2,2-Tetrachloroethane	ND	5. µg/kg
2-Chlorotoluene	ND	5. µg/kg	Tetrachloroethene (PCE)	ND	5. µg/kg
4-Chlorotoluene	ND	5. µg/kg	Toluene	ND	5. µg/kg
Dibromochloromethane	ND	5. µg/kg	1,2,3-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromo-3-chloropropane (DBCP)	ND	10. µg/kg	1,2,4-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromoethane (EDB)	ND	5. µg/kg	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5. µg/kg
Dibromomethane	ND	5. µg/kg	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5. µg/kg
1,2-Dichlorobenzene (o-DCB)	ND	5. µg/kg	Trichloroethene (TCE)	ND	5. µg/kg
1,3-Dichlorobenzene (m-DCB)	ND	5. µg/kg	Trichlorofluoromethane (Freon 11)	ND	10. µg/kg
1,4-Dichlorobenzene (p-DCB)	ND	5. µg/kg	1,2,3-Trichloropropane	ND	5. µg/kg
Dichlorodifluoromethane (Freon 12)	ND	5. µg/kg	1,2,4-Trimethylbenzene	ND	5. µg/kg
1,1-Dichloroethane (1,1-DCA)	ND	5. µg/kg	1,3,5-Trimethylbenzene	ND	5. µg/kg
1,2-Dichloroethane (1,2-DCA)	ND	5. µg/kg	Vinyl chloride	ND	5. µg/kg
1,1-Dichloroethene (1,1-DCE)	ND	5. µg/kg	o-Xylene	ND	5. µg/kg
cis-1,2-Dichloroethene	ND	5. µg/kg	m,p-Xylene	ND	10. µg/kg
trans-1,2-Dichloroethene	ND	5. µg/kg			
1,2-Dichloropropane	ND	5. µg/kg			
1,3-Dichloropropane	ND	5. µg/kg			
2,2-Dichloropropane	ND	10. µg/kg			

QUALITY CONTROL DATA:

Surrogate	% Recovery		Acceptable Range
4-Bromofluorobenzene	84		74 - 121
Dibromofluoromethane	1	Sf	80 - 120
Toluene-d8	91		81 - 117

ND - Not Detected

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C-23

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400516-V1
DATE SAMPLED: 7/31/01
NEL SAMPLE ID: L0108017-07

TEST: Volatile Organic Compounds by EPA 8260B, December 1996

METHOD: EPA 8260

MATRIX: Solid

DILUTION: 1

EXTRACTED: NA

ANALYZED: 8/7/01

ANALYST: DMH - Las Vegas Division

PARAMETER	Result µg/kg	Reporting Limit	PARAMETER	Result µg/kg	Reporting Limit
Acetone	110	25. µg/kg	1,1-Dichloropropene	ND	5. µg/kg
Benzene	ND	5. µg/kg	cis-1,3-Dichloropropene	ND	5. µg/kg
Bromobenzene	ND	5. µg/kg	trans-1,3-Dichloropropene	ND	5. µg/kg
Bromochloromethane	ND	5. µg/kg	Ethylbenzene	ND	5. µg/kg
Bromodichloromethane	ND	5. µg/kg	Hexachlorobutadiene	ND	5. µg/kg
Bromoform	ND	5. µg/kg	2-Hexanone	ND	25. µg/kg
Bromomethane	ND	5. µg/kg	Iodomethane	ND	5. µg/kg
2-Butanone	ND	25. µg/kg	Isopropylbenzene	ND	5. µg/kg
n-Butylbenzene	ND	5. µg/kg	p-Isopropyltoluene	ND	5. µg/kg
sec-Butylbenzene	ND	5. µg/kg	Methylene chloride (Dichloromethane)	ND	5. µg/kg
tert-Butylbenzene	ND	5. µg/kg	4-Methyl-2-pentanone	ND	25. µg/kg
Carbon disulfide	ND	5. µg/kg	MTBE	ND	5. µg/kg
Carbon tetrachloride	ND	5. µg/kg	Naphthalene	ND	10. µg/kg
Chlorobenzene	ND	5. µg/kg	n-Propylbenzene	ND	5. µg/kg
Chloroethane	ND	5. µg/kg	Styrene	ND	5. µg/kg
Chloroform	ND	5. µg/kg	1,1,1,2-Tetrachloroethane	ND	5. µg/kg
Chloromethane	ND	5. µg/kg	1,1,2,2-Tetrachloroethane	ND	5. µg/kg
2-Chlorotoluene	ND	5. µg/kg	Tetrachloroethene (PCE)	ND	5. µg/kg
4-Chlorotoluene	ND	5. µg/kg	Toluene	ND	5. µg/kg
Dibromochloromethane	ND	5. µg/kg	1,2,3-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromo-3-chloropropane (DBCP)	ND	10. µg/kg	1,2,4-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromoethane (EDB)	ND	5. µg/kg	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5. µg/kg
Dibromomethane	ND	5. µg/kg	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5. µg/kg
1,2-Dichlorobenzene (o-DCB)	ND	5. µg/kg	Trichloroethene (TCE)	ND	5. µg/kg
1,3-Dichlorobenzene (m-DCB)	ND	5. µg/kg	Trichlorofluoromethane (Freon 11)	ND	10. µg/kg
1,4-Dichlorobenzene (p-DCB)	ND	5. µg/kg	1,2,3-Trichloropropane	ND	5. µg/kg
Dichlorodifluoromethane (Freon 12)	ND	5. µg/kg	1,2,4-Trimethylbenzene	ND	5. µg/kg
1,1-Dichloroethane (1,1-DCA)	ND	5. µg/kg	1,3,5-Trimethylbenzene	ND	5. µg/kg
1,2-Dichloroethane (1,2-DCA)	ND	5. µg/kg	Vinyl chloride	ND	5. µg/kg
1,1-Dichloroethene (1,1-DCE)	ND	5. µg/kg	o-Xylene	ND	5. µg/kg
cis-1,2-Dichloroethene	ND	5. µg/kg	m,p-Xylene	ND	10. µg/kg
trans-1,2-Dichloroethene	ND	5. µg/kg			
1,2-Dichloropropane	ND	5. µg/kg			
1,3-Dichloropropane	ND	5. µg/kg			
2,2-Dichloropropane	ND	10. µg/kg			

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
4-Bromofluorobenzene	93	74 - 121
Dibromofluoromethane	3 Sf	80 - 120
Toluene-d8	98	81 - 117

ND - Not Detected

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C-24

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400563-V1
DATE SAMPLED: 7/31/01
NEL SAMPLE ID: L0108017-08

TEST: Volatile Organic Compounds by EPA 8260B, December 1996

METHOD: EPA 8260

MATRIX: Solid

DILUTION: 1

EXTRACTED: NA

ANALYZED: 8/7/01

ANALYST: DMH - Las Vegas Division

PARAMETER	Result µg/kg	Reporting Limit	PARAMETER	Result µg/kg	Reporting Limit
Acetone	120	25. µg/kg	1,1-Dichloropropene	ND	5. µg/kg
Benzene	ND	5. µg/kg	cis-1,3-Dichloropropene	ND	5. µg/kg
Bromobenzene	ND	5. µg/kg	trans-1,3-Dichloropropene	ND	5. µg/kg
Bromochloromethane	ND	5. µg/kg	Ethylbenzene	ND	5. µg/kg
Bromodichloromethane	ND	5. µg/kg	Hexachlorobutadiene	ND	5. µg/kg
Bromoform	ND	5. µg/kg	2-Hexanone	ND	25. µg/kg
Bromomethane	ND	5. µg/kg	Iodomethane	ND	5. µg/kg
2-Butanone	ND	25. µg/kg	Isopropylbenzene	ND	5. µg/kg
n-Butylbenzene	ND	5. µg/kg	p-Isopropyltoluene	ND	5. µg/kg
sec-Butylbenzene	ND	5. µg/kg	Methylene chloride (Dichloromethane)	ND	5. µg/kg
tert-Butylbenzene	ND	5. µg/kg	4-Methyl-2-pentanone	ND	25. µg/kg
Carbon disulfide	ND	5. µg/kg	MTBE	ND	5. µg/kg
Carbon tetrachloride	ND	5. µg/kg	Naphthalene	29	10. µg/kg
Chlorobenzene	ND	5. µg/kg	n-Propylbenzene	ND	5. µg/kg
Chloroethane	ND	5. µg/kg	Styrene	ND	5. µg/kg
Chloroform	ND	5. µg/kg	1,1,1,2-Tetrachloroethane	ND	5. µg/kg
Chloromethane	ND	5. µg/kg	1,1,2,2-Tetrachloroethane	ND	5. µg/kg
2-Chlorotoluene	ND	5. µg/kg	Tetrachloroethene (PCE)	ND	5. µg/kg
4-Chlorotoluene	ND	5. µg/kg	Toluene	ND	5. µg/kg
Dibromochloromethane	ND	5. µg/kg	1,2,3-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromo-3-chloropropane (DBCP)	ND	10. µg/kg	1,2,4-Trichlorobenzene	ND	5. µg/kg
1,2-Dibromoethane (EDB)	ND	5. µg/kg	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5. µg/kg
Dibromomethane	ND	5. µg/kg	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5. µg/kg
1,2-Dichlorobenzene (o-DCB)	ND	5. µg/kg	Trichloroethene (TCE)	ND	5. µg/kg
1,3-Dichlorobenzene (m-DCB)	ND	5. µg/kg	Trichlorofluoromethane (Freon 11)	ND	10. µg/kg
1,4-Dichlorobenzene (p-DCB)	ND	5. µg/kg	1,2,3-Trichloropropane	ND	5. µg/kg
Dichlorodifluoromethane (Freon 12)	ND	5. µg/kg	1,2,4-Trimethylbenzene	ND	5. µg/kg
1,1-Dichloroethane (1,1-DCA)	ND	5. µg/kg	1,3,5-Trimethylbenzene	ND	5. µg/kg
1,2-Dichloroethane (1,2-DCA)	ND	5. µg/kg	Vinyl chloride	ND	5. µg/kg
1,1-Dichloroethene (1,1-DCE)	ND	5. µg/kg	o-Xylene	ND	5. µg/kg
cis-1,2-Dichloroethene	ND	5. µg/kg	m,p-Xylene	ND	10. µg/kg
trans-1,2-Dichloroethene	ND	5. µg/kg			
1,2-Dichloropropane	ND	5. µg/kg			
1,3-Dichloropropane	ND	5. µg/kg			
2,2-Dichloropropane	ND	10. µg/kg			

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
4-Bromofluorobenzene	91	74 - 121
Dibromofluoromethane	1 Sf	80 - 120
Toluene-d8	96	81 - 117

ND - Not Detected

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C-25

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 010806AQ60_2A1-BLK

TEST: Volatile Organic Compounds by EPA 8260B, December 1996

METHOD: EPA 8260

MATRIX: Aqueous

ANALYST: DMH - Las Vegas Division

EXTRACTED: NA

ANALYZED: 8/6/01

PARAMETER	Result µg/L	Reporting Limit	PARAMETER	Result µg/L	Reporting Limit
Acetone	ND	25 µg/L	1,3-Dichloropropane	ND	5 µg/L
Benzene	ND	5 µg/L	2,2-Dichloropropane	ND	10 µg/L
Bromobenzene	ND	5 µg/L	1,1-Dichloropropene	ND	5 µg/L
Bromochloromethane	ND	5 µg/L	cis-1,3-Dichloropropene	ND	5 µg/L
Bromodichloromethane	ND	5 µg/L	trans-1,3-Dichloropropene	ND	5 µg/L
Bromoform	ND	5 µg/L	Ethylbenzene	ND	5 µg/L
Bromomethane	ND	5 µg/L	Hexachlorobutadiene	ND	5 µg/L
2-Butanone	ND	25 µg/L	2-Hexanone	ND	25 µg/L
n-Butylbenzene	ND	5 µg/L	Iodomethane	ND	5 µg/L
sec-Butylbenzene	ND	5 µg/L	Isopropylbenzene	ND	5 µg/L
tert-Butylbenzene	ND	5 µg/L	p-Isopropyltoluene	ND	5 µg/L
Carbon disulfide	ND	5 µg/L	Methylene chloride (Dichloromethane)	ND	5 µg/L
Carbon tetrachloride	ND	5 µg/L	4-Methyl-2-pentanone	ND	25 µg/L
Chlorobenzene	ND	5 µg/L	MTBE	ND	5 µg/L
Chloroethane	ND	5 µg/L	Naphthalene	ND	10 µg/L
Chloroform	ND	5 µg/L	n-Propylbenzene	ND	5 µg/L
Chloromethane	ND	5 µg/L	Styrene	ND	5 µg/L
2-Chlorotoluene	ND	5 µg/L	1,1,1,2-Tetrachloroethane	ND	5 µg/L
4-Chlorotoluene	ND	5 µg/L	1,1,2,2-Tetrachloroethane	ND	5 µg/L
Dibromochloromethane	ND	5 µg/L	Tetrachloroethene (PCE)	ND	5 µg/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	10 µg/L	Toluene	ND	5 µg/L
1,2-Dibromoethane (EDB)	ND	5 µg/L	1,2,3-Trichlorobenzene	ND	5 µg/L
Dibromomethane	ND	5 µg/L	1,2,4-Trichlorobenzene	ND	5 µg/L
1,2-Dichlorobenzene (o-DCB)	ND	5 µg/L	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5 µg/L
1,3-Dichlorobenzene (m-DCB)	ND	5 µg/L	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5 µg/L
1,4-Dichlorobenzene (p-DCB)	ND	5 µg/L	Trichloroethene (TCE)	ND	5 µg/L
Dichlorodifluoromethane (Freon 12)	ND	5 µg/L	Trichlorofluoromethane (Freon 11)	ND	10 µg/L
1,1-Dichloroethane (1,1-DCA)	ND	5 µg/L	1,2,3-Trichloropropane	ND	5 µg/L
1,2-Dichloroethane (1,2-DCA)	ND	5 µg/L	1,2,4-Trimethylbenzene	ND	5 µg/L
1,1-Dichloroethene (1,1-DCE)	ND	5 µg/L	1,3,5-Trimethylbenzene	ND	5 µg/L
cis-1,2-Dichloroethene	ND	5 µg/L	Vinyl chloride	ND	5 µg/L
trans-1,2-Dichloroethene	ND	5 µg/L	o-Xylene	ND	5 µg/L
1,2-Dichloropropane	ND	5 µg/L	m,p-Xylene	ND	10 µg/L

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
4-Bromofluorobenzene	98	76 - 111
Dibromofluoromethane	102	88 - 114
Toluene-d8	99	95 - 108

ND - Not Detected

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CLIENT: Bechtel Nevada
 PROJECT ID: V1226
 PROJECT #: 23081
 TEST: Volatile Organic Compounds by EPA 8260B, December 1996
 METHOD: EPA 8260
 MATRIX: Solid

CLIENT ID: Method Blank
 DATE SAMPLED: NA
 NEL SAMPLE ID: 010807SD60_1A1-BLK
 ANALYST: DMH - Las Vegas Division
 EXTRACTED: NA
 ANALYZED: 8/7/01

PARAMETER	Result µg/kg	Reporting Limit	PARAMETER	Result µg/kg	Reporting Limit
Acetone	ND	25 µg/kg	1,3-Dichloropropane	ND	5 µg/kg
Benzene	ND	5 µg/kg	2,2-Dichloropropane	ND	10 µg/kg
Bromobenzene	ND	5 µg/kg	1,1-Dichloropropene	ND	5 µg/kg
Bromochloromethane	ND	5 µg/kg	cis-1,3-Dichloropropene	ND	5 µg/kg
Bromodichloromethane	ND	5 µg/kg	trans-1,3-Dichloropropene	ND	5 µg/kg
Bromoform	ND	5 µg/kg	Ethylbenzene	ND	5 µg/kg
Bromomethane	ND	5 µg/kg	Hexachlorobutadiene	ND	5 µg/kg
2-Butanone	ND	25 µg/kg	2-Hexanone	ND	25 µg/kg
n-Butylbenzene	ND	5 µg/kg	Iodomethane	ND	5 µg/kg
sec-Butylbenzene	ND	5 µg/kg	Isopropylbenzene	ND	5 µg/kg
tert-Butylbenzene	ND	5 µg/kg	p-Isopropyltoluene	ND	5 µg/kg
Carbon disulfide	ND	5 µg/kg	Methylene chloride (Dichloromethane)	ND	5 µg/kg
Carbon tetrachloride	ND	5 µg/kg	4-Methyl-2-pentanone	ND	25 µg/kg
Chlorobenzene	ND	5 µg/kg	MTBE	ND	5 µg/kg
Chloroethane	ND	5 µg/kg	Naphthalene	ND	10 µg/kg
Chloroform	ND	5 µg/kg	n-Propylbenzene	ND	5 µg/kg
Chloromethane	ND	5 µg/kg	Styrene	ND	5 µg/kg
2-Chlorotoluene	ND	5 µg/kg	1,1,1,2-Tetrachloroethane	ND	5 µg/kg
4-Chlorotoluene	ND	5 µg/kg	1,1,2,2-Tetrachloroethane	ND	5 µg/kg
Dibromochloromethane	ND	5 µg/kg	Tetrachloroethene (PCE)	ND	5 µg/kg
1,2-Dibromo-3-chloropropane (DBCP)	ND	10 µg/kg	Toluene	ND	5 µg/kg
1,2-Dibromoethane (EDB)	ND	5 µg/kg	1,2,3-Trichlorobenzene	ND	5 µg/kg
Dibromomethane	ND	5 µg/kg	1,2,4-Trichlorobenzene	ND	5 µg/kg
1,2-Dichlorobenzene (o-DCB)	ND	5 µg/kg	1,1,1-Trichloroethane (1,1,1-TCA)	ND	5 µg/kg
1,3-Dichlorobenzene (m-DCB)	ND	5 µg/kg	1,1,2-Trichloroethane (1,1,2-TCA)	ND	5 µg/kg
1,4-Dichlorobenzene (p-DCB)	ND	5 µg/kg	Trichloroethene (TCE)	ND	5 µg/kg
Dichlorodifluoromethane (Freon 12)	ND	5 µg/kg	Trichlorofluoromethane (Freon 11)	ND	10 µg/kg
1,1-Dichloroethane (1,1-DCA)	ND	5 µg/kg	1,2,3-Trichloropropane	ND	5 µg/kg
1,2-Dichloroethane (1,2-DCA)	ND	5 µg/kg	1,2,4-Trimethylbenzene	ND	5 µg/kg
1,1,1-Dichloroethene (1,1-DCE)	ND	5 µg/kg	1,3,5-Trimethylbenzene	ND	5 µg/kg
cis-1,2-Dichloroethene	ND	5 µg/kg	Vinyl chloride	ND	5 µg/kg
trans-1,2-Dichloroethene	ND	5 µg/kg	o-Xylene	ND	5 µg/kg
1,2-Dichloropropane	ND	5 µg/kg	m,p-Xylene	ND	10 µg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
4-Bromofluorobenzene	97	74 - 121
Dibromofluoromethane	101	80 - 120
Toluene-d8	99	81 - 117

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400545-V1
DATE SAMPLED: 7/31/01
NEL SAMPLE ID: L0108017-03

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996

METHOD: EPA 8082

ANALYST: JRW - Las Vegas Division

MATRIX: Solid

EXTRACTED: 8/3/01

DILUTION: 1

ANALYZED: 8/9/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	ND	20. µg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Decachlorobiphenyl	78	46 - 155
Tetrachloro-m-xylene	76	49 - 140

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: 25400559-V1
DATE SAMPLED: 7/31/01
NEL SAMPLE ID: L0108017-04

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996

METHOD: EPA 8082

ANALYST: JRW - Las Vegas Division

MATRIX: Solid

EXTRACTED: 8/3/01

DILUTION: 1

ANALYZED: 8/6/01

PARAMETER	Result	Reporting Limit
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	ND	20. µg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Decachlorobiphenyl	101	46 - 155
Tetrachloro-m-xylene	91	49 - 140

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 010803PCBS-BLK

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996

METHOD: EPA 8082

MATRIX: Solid

ANALYST: JRW - Las Vegas Division

EXTRACTED: 8/3/01

ANALYZED: 8/6/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	ND	20. µg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Decachlorobiphenyl	84	46 - 155
Tetrachloro-m-xylene	92	49 - 140

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081

TEST: Total Extractable Petroleum Hydrocarbons by EPA Method 8015M, December 1996
METHOD: EPA 8015M
ORDER ID: L0108017

MATRIX: Solid

ANALYST: PXC - Division

CLIENT SAMPLE ID	SAMPLE DATE	NEL SAMPLE ID	RESULT mg/kg	C.R.	Reporting Limit	Surrogate Recovery*	EXTRACTED	ANALYZED
25400549-V1	7/31/01	L0108017-05	840	O	20. mg/kg	78 %	8/9/01	8/9/01
25400563-V1	7/31/01	L0108017-08	54	D	20. mg/kg	56 %	8/9/01	8/9/01

C.R.: Carbon Range

D Diesel Range Organics (C10 to C28).

O Oil Range Organics (C18 to C34).

QUALITY CONTROL DATA (Total for Diesel Range):

Sample ID	Result	Acceptable Range	Surrogate Recovery*	Sample Number
Blank, 010808TP -BLK	ND	< 20 mg/kg	90 %	NA
LCS, 010808TPHS-LCS	58 %	54 - 91 %	82 %	NA
LCSD, 010808TPHS-LCSD	61 %	54 - 93 %	82 %	NA
MS, 010808TPHS-MS	52 %	34 - 110 %	74 %	L0108047-02
MSD, 010808TPHS-MSD	58 %	34 - 110 %	89 %	L0108047-02

* Surrogate used was Octacosane, acceptance limits 55-130%.

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081
TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996
MATRIX: Solid

<u>PARAMETER</u>	<u>NEL Sample ID</u>	<u>Spike Amount</u>	<u>Spike Result</u>	<u>Percent Recovery</u>	<u>Acceptable Range</u>	<u>RPD</u>
Aroclor-1016	010803PCBS-LCS	333	301	90	63 - 127	
Aroclor-1016	010803PCBS-LCSD	333	337	101	63 - 127	11.3
Aroclor-1016	L0108017-03-MS	333	277	83	55 - 142	
Aroclor-1016	L0108017-03-MSD	333	290	87	55 - 142	4.6
Aroclor-1260	010803PCBS-LCS	333	277	83	57 - 138	
Aroclor-1260	010803PCBS-LCSD	333	313	94	57 - 138	12.2
Aroclor-1260	L0108017-03-MS	333	222	67	48 - 129	
Aroclor-1260	L0108017-03-MSD	333	238	71	48 - 129	7.

ND - Not Detected

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CLIENT: Bechtel Nevada
 PROJECT ID: V1226
 PROJECT #: 23081
 TEST: Volatile Organic Compounds by EPA 8260B, December 1996
 MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery	Acceptable Range	RPD
Acetone	010806AQ60_2A1-LCS	50	39.11	78	70 - 130	
Acetone	L0108030-01-MS	50	45.07	90	70 - 130	
Acetone	L0108030-01-MSD	50	47.69	95	70 - 130	5.6
Benzene	010806AQ60_2A1-LCS	50	46.24	92	70 - 130	
Benzene	L0108030-01-MS	50	52.68	105	70 - 130	
Benzene	L0108030-01-MSD	50	50.82	102	70 - 130	3.6
Bromobenzene	010806AQ60_2A1-LCS	50	46.48	93	70 - 130	
Bromobenzene	L0108030-01-MS	50	51.39	103	70 - 130	
Bromobenzene	L0108030-01-MSD	50	50.83	102	70 - 130	1.1
Bromochloromethane	010806AQ60_2A1-LCS	50	41.88	84	70 - 130	
Bromochloromethane	L0108030-01-MS	50	43.62	87	70 - 130	
Bromochloromethane	L0108030-01-MSD	50	50.05	100	70 - 130	13.7
Bromodichloromethane	010806AQ60_2A1-LCS	50	45.87	92	70 - 130	
Bromodichloromethane	L0108030-01-MS	50	50.77	102	70 - 130	
Bromodichloromethane	L0108030-01-MSD	50	51.53	103	70 - 130	1.5
Bromoform	010806AQ60_2A1-LCS	50	41.82	84	70 - 130	
Bromoform	L0108030-01-MS	50	49.84	100	70 - 130	
Bromoform	L0108030-01-MSD	50	49.76	100	70 - 130	0.2
Bromomethane	010806AQ60_2A1-LCS	50	50.54	101	70 - 130	
Bromomethane	L0108030-01-MS	50	54.86	110	70 - 130	
Bromomethane	L0108030-01-MSD	50	52.6	105	70 - 130	4.2
2-Butanone	010806AQ60_2A1-LCS	50	44.1	88	70 - 130	
2-Butanone	L0108030-01-MS	50	54.95	110	70 - 130	
2-Butanone	L0108030-01-MSD	50	53.11	106	70 - 130	3.4
n-Butylbenzene	010806AQ60_2A1-LCS	50	43.9	88	70 - 130	
n-Butylbenzene	L0108030-01-MS	50	45.99	92	70 - 130	
n-Butylbenzene	L0108030-01-MSD	50	45.17	90	70 - 130	1.8
sec-Butylbenzene	010806AQ60_2A1-LCS	50	46.09	92	70 - 130	
sec-Butylbenzene	L0108030-01-MS	50	49.73	99	70 - 130	
sec-Butylbenzene	L0108030-01-MSD	50	48.37	97	70 - 130	2.8
tert-Butylbenzene	010806AQ60_2A1-LCS	50	45.99	92	70 - 130	
tert-Butylbenzene	L0108030-01-MS	50	50.35	101	70 - 130	
tert-Butylbenzene	L0108030-01-MSD	50	48.69	97	70 - 130	3.4
Carbon disulfide	010806AQ60_2A1-LCS	50	44.64	89	70 - 130	
Carbon disulfide	L0108030-01-MS	50	50.9	102	70 - 130	
Carbon disulfide	L0108030-01-MSD	50	47.18	94	70 - 130	7.6
Carbon tetrachloride	010806AQ60_2A1-LCS	50	39.86	80	70 - 130	
Carbon tetrachloride	L0108030-01-MS	50	46.45	93	70 - 130	

ND - Not Detected

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CLIENT: Bechtel Nevada
 PROJECT ID: V1226
 PROJECT #: 23081
 TEST: Volatile Organic Compounds by EPA 8260B, December 1996
 MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery	Acceptable Range	RPD
Carbon tetrachloride	L0108030-01-MSD	50	44.06	88	70 - 130	5.3
Chlorobenzene	010806AQ60_2A1-LCS	50	46.13	92	70 - 130	
Chlorobenzene	L0108030-01-MS	50	50.94	102	70 - 130	
Chlorobenzene	L0108030-01-MSD	50	51.16	102	70 - 130	0.4
Chloroethane	010806AQ60_2A1-LCS	50	45.1	90	70 - 130	
Chloroethane	L0108030-01-MS	50	49.19	98	70 - 130	
Chloroethane	L0108030-01-MSD	50	47.72	95	70 - 130	3.
Chloroform	010806AQ60_2A1-LCS	50	47.1	94	70 - 130	
Chloroform	L0108030-01-MS	50	49.98	100	70 - 130	
Chloroform	L0108030-01-MSD	50	44.07	88	70 - 130	12.6
Chloromethane	010806AQ60_2A1-LCS	50	47.9	96	70 - 130	
Chloromethane	L0108030-01-MS	50	49.28	99	70 - 130	
Chloromethane	L0108030-01-MSD	50	47.41	95	70 - 130	3.9
2-Chlorotoluene	010806AQ60_2A1-LCS	50	45.05	90	70 - 130	
2-Chlorotoluene	L0108030-01-MS	50	49.73	99	70 - 130	
2-Chlorotoluene	L0108030-01-MSD	50	49.76	100	70 - 130	0.1
4-Chlorotoluene	010806AQ60_2A1-LCS	50	44.78	90	70 - 130	
4-Chlorotoluene	L0108030-01-MS	50	49.11	98	70 - 130	
4-Chlorotoluene	L0108030-01-MSD	50	48.72	97	70 - 130	0.8
Dibromochloromethane	010806AQ60_2A1-LCS	50	45.03	90	70 - 130	
Dibromochloromethane	L0108030-01-MS	50	52.03	104	70 - 130	
Dibromochloromethane	L0108030-01-MSD	50	51.07	102	70 - 130	1.9
1,2-Dibromo-3-chloropropane (DBCP)	010806AQ60_2A1-LCS	50	41.66	83	70 - 130	
1,2-Dibromo-3-chloropropane (DBCP)	L0108030-01-MS	50	44.73	89	70 - 130	
1,2-Dibromo-3-chloropropane (DBCP)	L0108030-01-MSD	50	51.69	103	70 - 130	14.4
1,2-Dibromoethane (EDB)	010806AQ60_2A1-LCS	50	44.29	89	70 - 130	
1,2-Dibromoethane (EDB)	L0108030-01-MS	50	50.77	102	70 - 130	
1,2-Dibromoethane (EDB)	L0108030-01-MSD	50	49.92	100	70 - 130	1.7
Dibromomethane	010806AQ60_2A1-LCS	50	45.6	91	70 - 130	
Dibromomethane	L0108030-01-MS	50	51.31	103	70 - 130	
Dibromomethane	L0108030-01-MSD	50	51.2	102	70 - 130	0.2
1,2-Dichlorobenzene (o-DCB)	010806AQ60_2A1-LCS	50	43.64	87	70 - 130	
1,2-Dichlorobenzene (o-DCB)	L0108030-01-MS	50	48.1	96	70 - 130	
1,2-Dichlorobenzene (o-DCB)	L0108030-01-MSD	50	47.98	96	70 - 130	0.2
1,3-Dichlorobenzene (m-DCB)	010806AQ60_2A1-LCS	50	44.1	88	70 - 130	
1,3-Dichlorobenzene (m-DCB)	L0108030-01-MS	50	48.32	97	70 - 130	
1,3-Dichlorobenzene (m-DCB)	L0108030-01-MSD	50	48.35	97	70 - 130	0.1
1,4-Dichlorobenzene (p-DCB)	010806AQ60_2A1-LCS	50	46.62	93	70 - 130	

ND - Not Detected

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CLIENT: Bechtel Nevada
 PROJECT ID: V1226
 PROJECT #: 23081
 TEST: Volatile Organic Compounds by EPA 8260B, December 1996
 MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery	Acceptable Range	RPD
1,4-Dichlorobenzene (p-DCB)	L0108030-01-MS	50	50.45	101	70 - 130	
1,4-Dichlorobenzene (p-DCB)	L0108030-01-MSD	50	51	102	70 - 130	1.1
Dichlorodifluoromethane (Freon 12)	010806AQ60_2A1-LCS	50	47.9	96	70 - 130	
Dichlorodifluoromethane (Freon 12)	L0108030-01-MS	50	49.28	99	70 - 130	
Dichlorodifluoromethane (Freon 12)	L0108030-01-MSD	50	47.41	95	70 - 130	3.9
1,1-Dichloroethane (1,1-DCA)	010806AQ60_2A1-LCS	50	42.94	86	70 - 130	
1,1-Dichloroethane (1,1-DCA)	L0108030-01-MS	50	39.75	80	70 - 130	
1,1-Dichloroethane (1,1-DCA)	L0108030-01-MSD	50	38.75	78	70 - 130	2.5
1,2-Dichloroethane (1,2-DCA)	010806AQ60_2A1-LCS	50	45	90	70 - 130	
1,2-Dichloroethane (1,2-DCA)	L0108030-01-MS	50	49.81	100	70 - 130	
1,2-Dichloroethane (1,2-DCA)	L0108030-01-MSD	50	49.66	99	70 - 130	0.3
1,1-Dichloroethene (1,1-DCE)	010806AQ60_2A1-LCS	50	47.59	95	70 - 130	
1,1-Dichloroethene (1,1-DCE)	L0108030-01-MS	50	55.81	112	70 - 130	
1,1-Dichloroethene (1,1-DCE)	L0108030-01-MSD	50	51.73	103	70 - 130	7.6
cis-1,2-Dichloroethene	010806AQ60_2A1-LCS	50	41.93	84	70 - 130	
cis-1,2-Dichloroethene	L0108030-01-MS	50	43.48	87	70 - 130	
cis-1,2-Dichloroethene	L0108030-01-MSD	50	42.35	85	70 - 130	2.6
trans-1,2-Dichloroethene	010806AQ60_2A1-LCS	50	32.5	65 J	70 - 130	
trans-1,2-Dichloroethene	L0108030-01-MS	50	32.02	64 J	70 - 130	
trans-1,2-Dichloroethene	L0108030-01-MSD	50	31.2	62 J	70 - 130	2.6
1,2-Dichloropropane	010806AQ60_2A1-LCS	50	47.27	95	70 - 130	
1,2-Dichloropropane	L0108030-01-MS	50	52.74	105	70 - 130	
1,2-Dichloropropane	L0108030-01-MSD	50	52.22	104	70 - 130	1.
1,3-Dichloropropane	010806AQ60_2A1-LCS	50	44.91	90	70 - 130	
1,3-Dichloropropane	L0108030-01-MS	50	51.15	102	70 - 130	
1,3-Dichloropropane	L0108030-01-MSD	50	51.06	102	70 - 130	0.2
2,2-Dichloropropane	010806AQ60_2A1-LCS	50	33.8	68 J	70 - 130	
2,2-Dichloropropane	L0108030-01-MS	50	32.75	66 J	70 - 130	
2,2-Dichloropropane	L0108030-01-MSD	50	28.64	57 J	70 - 130	13.4
1,1-Dichloropropene	010806AQ60_2A1-LCS	50	47.44	95	70 - 130	
1,1-Dichloropropene	L0108030-01-MS	50	54.55	109	70 - 130	
1,1-Dichloropropene	L0108030-01-MSD	50	51.03	102	70 - 130	6.7
cis-1,3-Dichloropropene	010806AQ60_2A1-LCS	50	42.73	85	70 - 130	
cis-1,3-Dichloropropene	L0108030-01-MS	50	46.67	93	70 - 130	
cis-1,3-Dichloropropene	L0108030-01-MSD	50	46.57	93	70 - 130	0.2
trans-1,3-Dichloropropene	010806AQ60_2A1-LCS	50	41.93	84	70 - 130	
trans-1,3-Dichloropropene	L0108030-01-MS	50	45.91	92	70 - 130	
trans-1,3-Dichloropropene	L0108030-01-MSD	50	45.41	91	70 - 130	1.1

ND - Not Detected

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C-35

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081
TEST: Volatile Organic Compounds by EPA 8260B, December 1996
MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike Amount	Spike Result	Percent Recovery	Acceptable Range	RPD
Ethylbenzene	010806AQ60_2A1-LCS	50	44.7	89	70 - 130	
Ethylbenzene	L0108030-01-MS	50	51.7	103	70 - 130	
Ethylbenzene	L0108030-01-MSD	50	49.88	100	70 - 130	3.6
Hexachlorobutadiene	010806AQ60_2A1-LCS	50	46.9	94	70 - 130	
Hexachlorobutadiene	L0108030-01-MS	50	41.49	83	70 - 130	
Hexachlorobutadiene	L0108030-01-MSD	50	45.32	91	70 - 130	8.8
2-Hexanone	010806AQ60_2A1-LCS	50	44.62	89	70 - 130	
2-Hexanone	L0108030-01-MS	50	55.25	111	70 - 130	
2-Hexanone	L0108030-01-MSD	50	56.23	112	70 - 130	1.8
Iodomethane	010806AQ60_2A1-LCS	50	37.2	74	70 - 130	
Iodomethane	L0108030-01-MS	50	37.21	74	70 - 130	
Iodomethane	L0108030-01-MSD	50	37.95	76	70 - 130	2.
Isopropylbenzene	010806AQ60_2A1-LCS	50	47.29	95	70 - 130	
Isopropylbenzene	L0108030-01-MS	50	51.98	104	70 - 130	
Isopropylbenzene	L0108030-01-MSD	50	50.16	100	70 - 130	3.6
p-Isopropyltoluene	010806AQ60_2A1-LCS	50	48.02	96	70 - 130	
p-Isopropyltoluene	L0108030-01-MS	50	50.01	100	70 - 130	
p-Isopropyltoluene	L0108030-01-MSD	50	49.63	99	70 - 130	0.8
Methylene chloride (Dichloromethane)	010806AQ60_2A1-LCS	50	43.47	87	70 - 130	
Methylene chloride (Dichloromethane)	L0108030-01-MS	50	31.27	63	70 - 130	
Methylene chloride (Dichloromethane)	L0108030-01-MSD	50	46.52	93	70 - 130	39.2
4-Methyl-2-pentanone	010806AQ60_2A1-LCS	50	44.66	89	70 - 130	
4-Methyl-2-pentanone	L0108030-01-MS	50	53.76	108	70 - 130	
4-Methyl-2-pentanone	L0108030-01-MSD	50	55.03	110	70 - 130	2.3
MTBE	010806AQ60_2A1-LCS	50	37.14	74	70 - 130	
MTBE	L0108030-01-MS	50	60.32	91	70 - 130	
MTBE	L0108030-01-MSD	50	53.19	76	70 - 130	17.1
Naphthalene	010806AQ60_2A1-LCS	50	31.73	63	70 - 130	
Naphthalene	L0108030-01-MS	50	35.61	71	70 - 130	
Naphthalene	L0108030-01-MSD	50	44.95	90	70 - 130	23.2
n-Propylbenzene	010806AQ60_2A1-LCS	50	45.76	92	70 - 130	
n-Propylbenzene	L0108030-01-MS	50	50.3	101	70 - 130	
n-Propylbenzene	L0108030-01-MSD	50	49.6	99	70 - 130	1.4
Styrene	010806AQ60_2A1-LCS	50	48.69	97	70 - 130	
Styrene	L0108030-01-MS	50	49.76	100	70 - 130	
Styrene	L0108030-01-MSD	50	47.8	96	70 - 130	4.
1,1,1,2-Tetrachloroethane	010806AQ60_2A1-LCS	50	46.51	93	70 - 130	
1,1,1,2-Tetrachloroethane	L0108030-01-MS	50	52.21	104	70 - 130	

ND - Not Detected

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C-36

CLIENT: Bechtel Nevada
 PROJECT ID: V1226
 PROJECT #: 23081
 TEST: Volatile Organic Compounds by EPA 8260B, December 1996
 MATRIX: Aqueous

PARAMETER	NEL Sample ID	Spike	Spike	Percent	Acceptable	RPD
		Amount	Result	Recovery	Range	
1,1,1,2-Tetrachloroethane	L0108030-01-MSD	50	51.24	102	70 - 130	1.9
1,1,2,2-Tetrachloroethane	010806AQ60_2A1-LCS	50	47.48	95	70 - 130	
1,1,2,2-Tetrachloroethane	L0108030-01-MS	50	52.42	105	70 - 130	
1,1,2,2-Tetrachloroethane	L0108030-01-MSD	50	53.44	107	70 - 130	1.9
Tetrachloroethene (PCE)	010806AQ60_2A1-LCS	50	45.28	91	70 - 130	
Tetrachloroethene (PCE)	L0108030-01-MS	50	52.08	104	70 - 130	
Tetrachloroethene (PCE)	L0108030-01-MSD	50	50.04	100	70 - 130	4
Toluene	010806AQ60_2A1-LCS	50	43.64	87	70 - 130	
Toluene	L0108030-01-MS	50	50.34	101	70 - 130	
Toluene	L0108030-01-MSD	50	49.64	99	70 - 130	1.4
1,2,3-Trichlorobenzene	010806AQ60_2A1-LCS	50	32.13	64 J	70 - 130	
1,2,3-Trichlorobenzene	L0108030-01-MS	50	31.36	63 J	70 - 130	
1,2,3-Trichlorobenzene	L0108030-01-MSD	50	39.14	78	70 - 130	22.1
1,2,4-Trichlorobenzene	010806AQ60_2A1-LCS	50	36.75	74	70 - 130	
1,2,4-Trichlorobenzene	L0108030-01-MS	50	37.92	76	70 - 130	
1,2,4-Trichlorobenzene	L0108030-01-MSD	50	42.41	85	70 - 130	11.2
1,1,1-Trichloroethane (1,1,1-TCA)	010806AQ60_2A1-LCS	50	39.94	80	70 - 130	
1,1,1-Trichloroethane (1,1,1-TCA)	L0108030-01-MS	50	45.11	90	70 - 130	
1,1,1-Trichloroethane (1,1,1-TCA)	L0108030-01-MSD	50	42.46	85	70 - 130	6.1
1,1,2-Trichloroethane (1,1,2-TCA)	010806AQ60_2A1-LCS	50	45.39	91	70 - 130	
1,1,2-Trichloroethane (1,1,2-TCA)	L0108030-01-MS	50	50.79	102	70 - 130	
1,1,2-Trichloroethane (1,1,2-TCA)	L0108030-01-MSD	50	51.46	103	70 - 130	1.3
Trichloroethene (TCE)	010806AQ60_2A1-LCS	50	46.44	93	70 - 130	
Trichloroethene (TCE)	L0108030-01-MS	50	52.85	106	70 - 130	
Trichloroethene (TCE)	L0108030-01-MSD	50	50.91	102	70 - 130	3.7
Trichlorofluoromethane (Freon 11)	010806AQ60_2A1-LCS	50	54.44	109	70 - 130	
Trichlorofluoromethane (Freon 11)	L0108030-01-MS	50	63.54	127	70 - 130	
Trichlorofluoromethane (Freon 11)	L0108030-01-MSD	50	57.63	115	70 - 130	9.8
1,2,3-Trichloropropane	010806AQ60_2A1-LCS	50	46.1	92	70 - 130	
1,2,3-Trichloropropane	L0108030-01-MS	50	51.3	103	70 - 130	
1,2,3-Trichloropropane	L0108030-01-MSD	50	51.98	104	70 - 130	1.3
1,2,4-Trimethylbenzene	010806AQ60_2A1-LCS	50	47.45	95	70 - 130	
1,2,4-Trimethylbenzene	L0108030-01-MS	50	52.04	104	70 - 130	
1,2,4-Trimethylbenzene	L0108030-01-MSD	50	51.94	104	70 - 130	0.2
1,3,5-Trimethylbenzene	010806AQ60_2A1-LCS	50	47.17	94	70 - 130	
1,3,5-Trimethylbenzene	L0108030-01-MS	50	50.73	101	70 - 130	
1,3,5-Trimethylbenzene	L0108030-01-MSD	50	50.08	100	70 - 130	1.3
Vinyl chloride	010806AQ60_2A1-LCS	50	51.4	103	70 - 130	

ND - Not Detected

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C-37

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081
TEST: Volatile Organic Compounds by EPA 8260B, December 1996
MATRIX: Aqueous

<u>PARAMETER</u>	<u>NEL Sample ID</u>	<u>Spike Amount</u>	<u>Spike Result</u>	<u>Percent Recovery</u>	<u>Acceptable Range</u>	<u>RPD</u>
Vinyl chloride	L0108030-01-MS	50	59.26	119	70 - 130	
Vinyl chloride	L0108030-01-MSD	50	52.61	105	70 - 130	11.9
o-Xylene	010806AQ60_2A1-LCS	50	46.86	94	70 - 130	
o-Xylene	L0108030-01-MS	50	53.38	107	70 - 130	
o-Xylene	L0108030-01-MSD	50	51.79	104	70 - 130	3.
m,p-Xylene	010806AQ60_2A1-LCS	100	90.4	90	70 - 130	
m,p-Xylene	L0108030-01-MS	100	101.84	102	70 - 130	
m,p-Xylene	L0108030-01-MSD	100	99.95	100	70 - 130	1.9

ND - Not Detected

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C-38

CLIENT: Bechtel Nevada
PROJECT ID: V1226
PROJECT #: 23081
TEST: Volatile Organic Compounds by EPA 8260B, December 1996
MATRIX: Solid

<u>PARAMETER</u>	<u>NEL Sample ID</u>	<u>Spike Amount</u>	<u>Spike Result</u>	<u>Percent Recovery</u>	<u>Acceptable Range</u>	<u>RPD</u>
Acetone	010807SD60_1A1-LCS	50	175.84	352 J	70 - 130	
Benzene	010807SD60_1A1-LCS	50	50.3	101	70 - 130	
Bromobenzene	010807SD60_1A1-LCS	50	52.98	106	70 - 130	
Bromochloromethane	010807SD60_1A1-LCS	50	52.17	104	70 - 130	
Bromodichloromethane	010807SD60_1A1-LCS	50	52.95	106	70 - 130	
Bromoform	010807SD60_1A1-LCS	50	59.31	119	70 - 130	
Bromomethane	010807SD60_1A1-LCS	50	53.49	107	70 - 130	
2-Butanone	010807SD60_1A1-LCS	50	156.93	314 J	70 - 130	
n-Butylbenzene	010807SD60_1A1-LCS	50	49.86	100	70 - 130	
sec-Butylbenzene	010807SD60_1A1-LCS	50	52.91	106	70 - 130	
tert-Butylbenzene	010807SD60_1A1-LCS	50	51.09	102	70 - 130	
Carbon disulfide	010807SD60_1A1-LCS	50	44.58	89	70 - 130	
Carbon tetrachloride	010807SD60_1A1-LCS	50	52.97	106	70 - 130	
Chlorobenzene	010807SD60_1A1-LCS	50	53.21	106	70 - 130	
Chloroethane	010807SD60_1A1-LCS	50	47.83	96	70 - 130	
Chloroform	010807SD60_1A1-LCS	50	47.93	96	70 - 130	
Chloromethane	010807SD60_1A1-LCS	50	46.41	93	70 - 130	
2-Chlorotoluene	010807SD60_1A1-LCS	50	52.96	106	70 - 130	
4-Chlorotoluene	010807SD60_1A1-LCS	50	41.36	83	70 - 130	
Dibromochloromethane	010807SD60_1A1-LCS	50	53.55	107	70 - 130	
1,2-Dibromo-3-chloropropane (DBCP)	010807SD60_1A1-LCS	50	62.47	125	70 - 130	
1,2-Dibromoethane (EDB)	010807SD60_1A1-LCS	50	54.09	108	70 - 130	
Dibromomethane	010807SD60_1A1-LCS	50	53.22	106	70 - 130	
1,2-Dichlorobenzene (o-DCB)	010807SD60_1A1-LCS	50	50.58	101	70 - 130	
1,3-Dichlorobenzene (m-DCB)	010807SD60_1A1-LCS	50	51.61	103	70 - 130	
1,4-Dichlorobenzene (p-DCB)	010807SD60_1A1-LCS	50	53.71	107	70 - 130	
Dichlorodifluoromethane (Freon 12)	010807SD60_1A1-LCS	50	47.77	96	70 - 130	
1,1-Dichloroethane (1,1-DCA)	010807SD60_1A1-LCS	50	48.66	97	70 - 130	
1,2-Dichloroethane (1,2-DCA)	010807SD60_1A1-LCS	50	51.88	104	70 - 130	
1,1-Dichloroethene (1,1-DCE)	010807SD60_1A1-LCS	50	47.54	95	70 - 130	
cis-1,2-Dichloroethene	010807SD60_1A1-LCS	50	47.4	95	70 - 130	
trans-1,2-Dichloroethene	010807SD60_1A1-LCS	50	48.32	97	70 - 130	
1,2-Dichloropropane	010807SD60_1A1-LCS	50	52.46	105	70 - 130	
1,3-Dichloropropane	010807SD60_1A1-LCS	50	54.29	109	70 - 130	
2,2-Dichloropropane	010807SD60_1A1-LCS	50	50.78	102	70 - 130	
1,1-Dichloropropene	010807SD60_1A1-LCS	50	53.09	106	70 - 130	
cis-1,3-Dichloropropene	010807SD60_1A1-LCS	50	57.33	115	70 - 130	
trans-1,3-Dichloropropene	010807SD60_1A1-LCS	50	49.89	100	70 - 130	

ND - Not Detected

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CLIENT: Bechtel Nevada
 PROJECT ID: V1226
 PROJECT #: 23081
 TEST: Volatile Organic Compounds by EPA 8260B, December 1996
 MATRIX: Solid

<u>PARAMETER</u>	<u>NEL Sample ID</u>	<u>Spike Amount</u>	<u>Spike Result</u>	<u>Percent Recovery</u>	<u>Acceptable Range</u>	<u>RPD</u>
Ethylbenzene	010807SD60_1A1-LCS	50	50.08	100	70 - 130	
Hexachlorobutadiene	010807SD60_1A1-LCS	50	52.43	105	70 - 130	
2-Hexanone	010807SD60_1A1-LCS	50	104.65	209 J	70 - 130	
Iodomethane	010807SD60_1A1-LCS	50	52.59	105	70 - 130	
Isopropylbenzene	010807SD60_1A1-LCS	50	50.62	101	70 - 130	
p-Isopropyltoluene	010807SD60_1A1-LCS	50	52.01	104	70 - 130	
Methylene chloride (Dichloromethane)	010807SD60_1A1-LCS	50	52.39	105	70 - 130	
4-Methyl-2-pentanone	010807SD60_1A1-LCS	50	72.18	144 J	70 - 130	
MTBE	010807SD60_1A1-LCS	50	50.53	101	70 - 130	
Naphthalene	010807SD60_1A1-LCS	50	53.98	108	70 - 130	
n-Propylbenzene	010807SD60_1A1-LCS	50	49.78	100	70 - 130	
Styrene	010807SD60_1A1-LCS	50	53.61	107	70 - 130	
1,1,1,2-Tetrachloroethane	010807SD60_1A1-LCS	50	53.58	107	70 - 130	
1,1,2,2-Tetrachloroethane	010807SD60_1A1-LCS	50	56.02	112	70 - 130	
Tetrachloroethene (PCE)	010807SD60_1A1-LCS	50	54.85	110	70 - 130	
Toluene	010807SD60_1A1-LCS	50	51.17	102	70 - 130	
1,2,3-Trichlorobenzene	010807SD60_1A1-LCS	50	51.26	103	70 - 130	
1,2,4-Trichlorobenzene	010807SD60_1A1-LCS	50	54.66	109	70 - 130	
1,1,1-Trichloroethane (1,1,1-TCA)	010807SD60_1A1-LCS	50	48.89	98	70 - 130	
1,1,2-Trichloroethane (1,1,2-TCA)	010807SD60_1A1-LCS	50	52.35	105	70 - 130	
Trichloroethene (TCE)	010807SD60_1A1-LCS	50	51.57	103	70 - 130	
Trichlorofluoromethane (Freon 11)	010807SD60_1A1-LCS	50	53.41	107	70 - 130	
1,2,3-Trichloropropane	010807SD60_1A1-LCS	50	59.72	119	70 - 130	
1,2,4-Trimethylbenzene	010807SD60_1A1-LCS	50	51.49	103	70 - 130	
1,3,5-Trimethylbenzene	010807SD60_1A1-LCS	50	50.68	101	70 - 130	
Vinyl chloride	010807SD60_1A1-LCS	50	49.51	99	70 - 130	
o-Xylene	010807SD60_1A1-LCS	50	53.26	107	70 - 130	
m,p-Xylene	010807SD60_1A1-LCS	100	106.78	107	70 - 130	

ND - Not Detected

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AN-0732 (02/98)

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Sample Delivery Group 1232

NEL LABORATORIES

Reno • Las Vegas
Phoenix • Boise

Las Vegas Division
4208 Arcata Way, Suite A • Las Vegas, Nevada 89030
702-657-1010 • Fax: 702-657-1577
1-888-368-3282

CLIENT: Bechtel Nevada
P.O. Box 98521, M/S NTS273
Las Vegas, NV 89193-8521
ATTN: Ted Redding

PROJECT NAME: V1232
PROJECT NUMBER: 23081

NEL ORDER ID: L0108068

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 8/8/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

/s/ Signature on file

Stan Van Wagenen
Laboratory Manager

8/20/01
Date

CERTIFICATIONS:

	<u>Reno</u>	<u>Las Vegas</u>	<u>S. California</u>
Arizona	AZ0520	AZ0518	AZ0605
California	1707	2002	2264
US Army Corps of Engineers	Certified	Certified	

	<u>Reno</u>	<u>Las Vegas</u>	<u>S. California</u>
Idaho	Certified	Certified	
Montana	Certified	Certified	
Nevada	NV033	NV052	CA084
L.A.C.S.D.			10228

C-44

CLIENT: Bechtel Nevada
PROJECT ID: V1232
PROJECT #: 23081

CLIENT ID: 25400548-V2
DATE SAMPLED: 8/6/01
NEL SAMPLE ID: L0108068-01

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996
METHOD: EPA 8082
MATRIX: Solid
DILUTION: 1

ANALYST: JRW - Las Vegas Division
EXTRACTED:
ANALYZED: 1/15/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	71 µg/kg	20. µg/kg

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Decachlorobiphenyl	102	46 - 155
Tetrachloro-m-xylene	82	49 - 140

ND - Not Detected

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C-45

CLIENT: Bechtel Nevada
PROJECT ID: V1232
PROJECT #: 23081

CLIENT ID: 25400001-V1
DATE SAMPLED: 8/6/01
NEL SAMPLE ID: L0108068-02

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996

METHOD: EPA 8082

ANALYST: JRW - Las Vegas Division

MATRIX: Aqueous

EXTRACTED: 8/11/01

DILUTION: 1

ANALYZED: 8/14/01

<u>PARAMETER</u>	<u>Result</u>	<u>Reporting Limit</u>
Aroclor-1016	ND	1. µg/L
Aroclor-1221	ND	1. µg/L
Aroclor-1232	ND	1. µg/L
Aroclor-1242	ND	1. µg/L
Aroclor-1248	ND	1. µg/L
Aroclor-1254	ND	1. µg/L
Aroclor-1260	ND	1. µg/L

QUALITY CONTROL DATA:

<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptable Range</u>
Decachlorobiphenyl	71	32 - 145
Tetrachloro-m-xylene	111	50 - 143

ND - Not Detected

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C-46

CLIENT: Bechtel Nevada
PROJECT ID: V1232
PROJECT #: 23081

CLIENT ID: Method Blank
DATE SAMPLED: NA
NEL SAMPLE ID: 010811PCBS-BLK

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996

METHOD: EPA 8082

MATRIX: Solid

ANALYST: JRW - Las Vegas Division

EXTRACTED:

ANALYZED: 1/15/01

PARAMETER	Result	Reporting Limit
Aroclor-1016	ND	20. µg/kg
Aroclor-1221	ND	20. µg/kg
Aroclor-1232	ND	20. µg/kg
Aroclor-1242	ND	20. µg/kg
Aroclor-1248	ND	20. µg/kg
Aroclor-1254	ND	20. µg/kg
Aroclor-1260	ND	20. µg/kg

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Decachlorobiphenyl	115	46 - 155
Tetrachloro-m-xylene	123	49 - 140

ND - Not Detected

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CLIENT: Bechtel Nevada

CLIENT ID: Method Blank

PROJECT ID: V1232

DATE SAMPLED: NA

PROJECT #: 23081

NEL SAMPLE ID: 010811PCBW-BLK

TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996

METHOD: EPA 8082

MATRIX: Aqueous

ANALYST: JRW - Las Vegas Division

EXTRACTED: 8/11/01

ANALYZED: 8/14/01

PARAMETER	Result	Reporting Limit
Aroclor-1016	ND	1. µg/L
Aroclor-1221	ND	1. µg/L
Aroclor-1232	ND	1. µg/L
Aroclor-1242	ND	1. µg/L
Aroclor-1248	ND	1. µg/L
Aroclor-1254	ND	1. µg/L
Aroclor-1260	ND	1. µg/L

QUALITY CONTROL DATA:

Surrogate	% Recovery	Acceptable Range
Decachlorobiphenyl	46	32 - 145
Tetrachloro-m-xylene	63	50 - 143

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1232
PROJECT #: 23081
TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996
MATRIX: Solid

<u>PARAMETER</u>	<u>NEL Sample ID</u>	<u>Spike Amount</u>	<u>Spike Result</u>	<u>Percent Recovery</u>	<u>Acceptable Range</u>	<u>RPD</u>
Aroclor-1016	010811PCBS-LCS	333	338	102	63 - 127	
Aroclor-1016	010811PCBS-LCSD	333	395	119	63 - 127	15.6
Aroclor-1016	L0108068-01-MS	333	321	96	55 - 142	
Aroclor-1016	L0108068-01-MSD	333	339	102	55 - 142	5.5
Aroclor-1260	010811PCBS-LCS	333	333	100	57 - 138	
Aroclor-1260	010811PCBS-LCSD	333	379	114	57 - 138	12.9
Aroclor-1260	L0108068-01-MS	333	404	100	48 - 129	
Aroclor-1260	L0108068-01-MSD	333	428	107	48 - 129	7.

ND - Not Detected

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CLIENT: Bechtel Nevada
PROJECT ID: V1232
PROJECT #: 23081
TEST: PCB's (Polychlorinated Biphenyls) by EPA 8082, Dec. 1996
MATRIX: Aqueous

<u>PARAMETER</u>	<u>NEL Sample ID</u>	<u>Spike Amount</u>	<u>Spike Result</u>	<u>Percent Recovery</u>	<u>Acceptable Range</u>	<u>RPD</u>
Aroclor-1016	010811PCBW-LCS	10	8.63	86	56 - 126	
Aroclor-1016	010811PCBW-LCSD	10	10.25	102	56 - 126	17.2
Aroclor-1260	010811PCBW-LCS	10	10.64	106	44 - 134	
Aroclor-1260	010811PCBW-LCSD	10	10.87	109	44 - 134	2.1

ND - Not Detected

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LEVEL 4

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10108068

Bechtel NevadaANALYTICAL SERVICES LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page ___ of ___

PROJECT/CLIENT INFORMATION				REPORT INFORMATION				SAMPLE INFORMATION				
Project: <u>CAD 254 RMD Decon</u> BN Org#: <u>2156</u>				Send Report to: <u>Patrick Morris</u>				Sampling Site: <u>SW Pad Opening</u>				
Charge No.: <u>C7F14D11</u>		ASL Prog.:		Phone: <u>295-5397</u>		Fax: <u>295-7761</u>		M/S: <u>NTS 306</u>		The samples submitted contain (check): () Hazardous () Radioactive () Unknown contamination. If known, attach a brief narrative summary identifying contaminants. This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.		
Project Manager: <u>Wayne Johnson</u>				Turnaround: () Standard - 30 days Non-rad, 60 Days Rad, Other: <u>W Rush Preliminary by: 7-days</u> Final by: _____								
Phone: <u>215-0573</u>		Fax: <u>295-7761</u>		M/S: <u>NTS 306</u>		Final report format: () Standard () NTS-WAC () Other: _____						
LAB USE ONLY				ANALYSES & METHOD				SAMPLE RECEIPT INFORMATION				
Rad SGD:		Non-Rad SGD: <u>V1232</u>		<u>Total PCBs by 8087</u> <u>PAY ITEM: 8.1</u> <u>PAY ITEM: 3.1</u> <u>No. of 4-oz 4m glass jars</u> <u>No. of 1-L amber glass bottles</u>				Are all sample containers received intact? ☒ Yes () No Comments: _____				
Rad Packet:		Non-Rad Packet:						Do the labels agree with this form? ☒ Yes () No Comments: _____				
Client Services Representative:								Was a Material Clearance Tag submitted? ☒ Yes () No Comments: _____				
Will these analyses be performed under a signed SOW? () YES () NO If so, do analyses entered here agree with the SOW? () YES () NO () N/A If not, identify the variation _____ CSR initials indicating review and approval: _____ Date: _____								COMMENTS (Preservative, size/volume, MSMSD, special analysis, rad matrix code, count time, etc.)				
ITEM	ID / DESCRIPTION	SAMPLING DATE TIME		MATRIX or %								
01	25400548-V2	Aug. 6	14:30	MS/MSD	X				3	MS/MSD } chilled to 4°C		
02	25400001-V1	Aug. 6	14:40	WATER	X				1			
2										It is not intended that this material be received under the authority of a radioactive material license.		
3												
4												
5												
6												
7										These are closure verification samples. PCB concentrations are expected to be below TSCA action levels.		
8												
9												
Transfer of samples submitted for analyses					Complete for samples shipped to an OFF-SITE Subcontract Laboratory							
Sampled/Relinquished (Signature/Organization)		DATE / TIME		Received by (Signature/Organization)		Relinquished (BN Representative Signature)		DATE / TIME		Received (Courier & Tracking Info.)		
/s/ Signature on file		7/8 07:45		/s/ Signature on file		/s/ Signature on file		8/8/01/1300		BAL COURIER		
						Relinquished (Courier & Tracking Info.)		DATE / TIME		Received (1st tier Subcontractor Rep)		
						Relinquished (1st tier Subcontractor Rep)		DATE / TIME		Received (2nd tier Subcontractor Rep)		

Distribution: Original - To be retained by laboratory performing final analysis
 Copy 1 - To be retained by laboratory performing intermediate analysis
 Copy 2 - To be retained by Analytical Services Laboratory
 Copy 3 - To be retained by sample

BN-0732 (12/96)

CONCRETE & SEDIMENT VERIFICATION SAMPLES
(Continued)

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Radioisotopes

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Radioanalytical Results

Report Identification Number: S2483

Project Name: <u>Bchtel Nevada</u>	Chain-of-Custody Number: <u>V1225</u>	Matrix: <u>Waste</u>
Site Sample ID: <u>25400 542-V1</u>		
Other Sample ID:	Collection Date: <u>7/31/01</u>	Date Received: <u>8/3/01</u>
	Batch Number: <u>2483</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	CS-137	NTS01-2483-04	19.6	1.96	2.77	0.095
ACW03	U-233/234	NTS01-2483-04	3.00	0.627	0.868	0.128
ACW03	U-235	NTS01-2483-04	0.099	0.114	0.118	0.089
ACW03	U-238	NTS01-2483-04	0.493	0.236	0.256	0.127
ACW03	PU-238	NTS01-2483-04	0.000	0.000	0.000	0.037
ACW03	PU-239/240	NTS01-2483-04	0.014	0.028	0.028	0.037
ACW03	AM-241	NTS01-2483-04	0.000	0.000	0.000	0.037
SRW01	SR-90	NTS01-2483-04	10.7	1.15	1.57	0.632

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Sr	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
U	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Pu	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Am	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB

**Sanford Cohen & Associates
Southeastern Environmental Laboratory**

Radioanalytical Results

Report Identification Number: S2463

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1225</u>	Matrix: <u>Waste</u>
Site Sample ID: <u>25400 545-V1</u>		
Other Sample ID:	Collection Date: <u>7/31/01</u>	Date Received: <u>8/3/01</u>
	Batch Number: <u>2483</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	CS-137	NTS01-2483-01	0.003	0.043	0.043	0.080
ACW03	U-233/234	NTS01-2483-01	0.730	0.298	0.331	0.183
ACW03	U-235	NTS01-2483-01	-0.007	0.080	0.080	0.208
ACW03	U-238	NTS01-2483-01	0.239	0.336	0.385	0.182
ACW03	PU-238	NTS01-2483-01	0.002	0.035	0.036	0.076
ACW03	PU-239/240	NTS01-2483-01	0.013	0.027	0.027	0.036
ACW03	AM-241	NTS01-2483-01	0.002	0.033	0.033	0.072
SRW01	SR-90	NTS01-2483-01	0.903	0.456	0.455	0.630

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Sr	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
U	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Pu	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Am	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB



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Certificate of Analysis

Company: Bechtel Nevada
Address: 2621 Losee Road

North Las Vegas, Nevada 89030-4129
Contact: Theodore Redding
Project: Environmental Rad Analysis

Report Date: July 19, 2001

Page 1 of 2

Client Sample ID: 25400546-VI
Sample ID: 44602003
Matrix: Soil
Collect Date: 20-JUN-01
Receive Date: 22-JUN-01
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	DL	TPU	PL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec												
<i>AlphaSpec Pu, solid</i>												
Plutonium-238		0.0154	±0.00705	0.0023	0.00721	0.020						
Plutonium-239/240		0.0107	±0.00672	0.00848	0.00682	0.020						
<i>AlphaSpec U, solid</i>												
Uranium-233/234		3.49	±0.140	0.0152	0.481	0.020						
Uranium-235/236		0.169	±0.0309	0.00442	0.0381	0.020						
Uranium-238		0.724	±0.064	0.0113	0.115	0.020						
Rad Gamma Spec												
<i>GammaSpec, Gamma, solid</i>												
Americium-241	U	0.042	±0.0777	0.0676	0.0777	0.200						
Cesium-137		7.65	±0.971	0.0499	0.971	0.050						
Potassium-40		31.0	±3.30	0.338	3.30							
Uranium-235	U	0.156	±0.185	0.246	0.185	0.200						
Uranium-238		1.79	±0.819	0.640	0.819	1.00						
Rad Gas Flow												
<i>GFPC, Sr-90, solid</i>												
Strontium-90		2.08	±0.388	0.492	0.695	1.00						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep RAD A-021, A-021B, A-026	WBO	06/26/01	1341	86112
Dry Soil Prep	Dry Soil Prep RAD A-021, A-021B, A-026	WBO	06/25/01	1110	85627

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300
2	DOE EML HASL 300
3	DOE EML HASL 300
4	EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

** Indicates the analyte is a surrogate compound.

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Contact : Theodore Redding
Project : Environmental Rad Analysis

Report Date: July 19, 2001

Page 2 of 2

Client Sample ID: 25400546-V1
Sample ID: 44602003

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	DL	TPU	EL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit.

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

/s/ Signature on file

Reviewed by



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Company: Bechtel Nevada
Address: 2521 Lonsse Road

North Las Vegas, Nevada 89030-4129
Contact: Theodore Redding
Project: Environmental Rad Analysis

Report Date: July 19, 2001

Page 1 of 2

Client Sample ID: 25400547-V1
Sample ID: 44502002
Matrix: Soil
Collect Date: 20-JUN-01
Receive Date: 22-JUN-01
Collector: Client

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mid.
Rad Alpha Spec												
<i>AlphaSpec Pu, solid</i>												
Plutonium-238		0.00596	±0.00456	0.00221	0.00461	0.020						
Plutonium-239/240	U	0.00147	±0.00289	0.00563	0.00289	0.020						
<i>AlphaSpec U, solid</i>												
Uranium-233/234		1.64	±0.0959	0.0112	0.237	0.020						
Uranium-235/236		0.104	±0.0243	0.0092	0.028	0.020						
Uranium-238		0.831	±0.0683	0.0112	0.129	0.020						
Rad Gamma Spec												
<i>GammaSpec, Gamma, solid</i>												
Americium-241	U	0.0279	±0.108	0.206	0.108	0.200						
Cesium-137		0.819	±0.114	0.836	0.114	0.050						
Potassium-40		30.4	±3.45	0.288	3.45							
Uranium-235	U	0.106	±0.163	0.202	0.163	0.200						
Uranium-238		1.69	±1.32	1.52	1.32	1.00						
Rad Gas Flow												
<i>GFPC, Sr90, solid</i>												
Strontium-90	U	0.419	±0.270	0.536	0.289	1.00						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep RAD A-021A-021B,A-026	WEO	06/26/01	1341	86112
Dry Soil Prep	Dry Soil Prep RAD A-021A-021B,A-026	WEO	06/25/01	1110	85627

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300
2	DOE EML HASL 300
3	DOE EML HASL 300
4	EPA 905.0

Notes:

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Contact: Theodore Redding
Project: Environmental Rad Analysis

Report Date: July 19, 2001

Page 2 of 2

Client Sample ID:
Sample ID:

25400547-V1
44602002

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	DL	TPU	NL	Units	DF	Analysis Date	Time	Batch Mtd.
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- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
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The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

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Contact: North Las Vegas, Nevada 89030-4129
Theodore Redding
Project: Environmental Rad Analysis

Report Date: July 19, 2001

Page 1 of 2

Client Sample ID: 25400548-V1
Sample ID: 44602001
Matrix: Soil
Collect Date: 20-JUN-01
Receive Date: 22-JUN-01
Collector: Client
Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	DL	TPU	SL	Units	DF	Analyst/Date	Time	Batch/Mod.
Rad Alpha Spec										
AlphaSpec Pu, solid										
Plutonium-238	U	0.00476	±0.00569	0.00786	0.00573	0.020	pCi/g	MMT 07/16/01	2217	88240 1
Plutonium-239/240		0.00308	±0.00349	0.00308	0.0035	0.020	pCi/g			
AlphaSpec U, solid										
Uranium-233/234		1.54	±0.0968	0.0152	0.214	0.020	pCi/g	MMT 07/11/01	1243	88248 2
Uranium-235/236		0.113	±0.0264	0.00999	0.0299	0.020	pCi/g			
Uranium-238		0.754	±0.068	0.0175	0.116	0.020	pCi/g			
Rad Gamma Spec										
GammaSpec, Gamma, solid										
Americium-241	U	0.0466	±0.137	0.247	0.137	0.020	pCi/g	CRB 07/02/01	0830	86288 3
Cesium-137		0.933	±0.127	0.0389	0.127	0.050	pCi/g			
Potassium-40		29.9	±3.44	0.305	3.44		pCi/g			
Uranium-235	U	0.136	±0.191	0.230	0.191	0.020	pCi/g			
Uranium-238	U	1.43	±1.69	1.85	1.69	0.020	pCi/g			
Rad Gas Flow										
GFPC, Sr-90, solid										
Strontium-90	U	0.307	±0.242	0.513	0.253	1.00	pCi/g	LOM 07/11/01	1556	89016 4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep RAD A-021A-021B,A-026	WEO	06/26/01	1341	86112
Dry Soil Prep	Dry Soil Prep RAD A-021A-021B,A-026	WEO	06/25/01	1110	85627

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL 300
2	DOE EML HASL 300
3	DOE EML HASL 300
4	EPA 905.0

Notes:

The Qualifiers in this report are defined as follows:

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North Las Vegas, Nevada 89030-4129
Contact: Theodore Redding
Project: Environmental Rad Analysis

Report Date: July 19, 2001

Page 2 of 2

Client Sample ID: 25400548-V1
Sample ID: 44602001

Project: NEVA00101
Client ID: NEVA002

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
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- < Actual result is less than amount reported
- > Actual result is greater than amount reported
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on an "as received" basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc. standard operating procedures. Please direct any questions to your Project Manager, Stacy Griffin.

/s/ Signature on file

Reviewed by

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2483

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1225</u>	Matrix: <u>Waste</u>
Site Sample ID: <u>25400 549-V1</u>		
Other Sample ID:	Collection Date: <u>7/31/01</u>	Date Received: <u>8/3/01</u>
	Batch Number: <u>2483</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	CS-137	NTS01-2483-03	0.778	0.137	0.157	0.079
ACW03	U-233/234	NTS01-2483-03	0.763	0.291	0.329	0.071
ACW03	U-235	NTS01-2483-03	0.039	0.099	0.100	0.184
ACW03	U-238	NTS01-2483-03	0.578	0.251	0.276	0.071
ACW03	PU-238	NTS01-2483-03	0.002	0.036	0.038	0.078
ACW03	PU-239/240	NTS01-2483-03	0.014	0.027	0.028	0.037
ACW03	AM-241	NTS01-2483-03	0.056	0.056	0.057	0.038
SRW01	SR-90	NTS01-2483-03	0.528	0.377	0.381	0.556

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Sr	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
U	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Pu	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Am	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2483

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1225</u>	Matrix: <u>Waste</u>
Site Sample ID: <u>25400 559-V1</u>		
Other Sample ID:	Collection Date: <u>7/31/01</u>	Date Received: <u>8/3/01</u>
	Batch Number: <u>2483</u>	Laboratory Code: <u>SCA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ Counting Error (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	CS-137	NTS01-2483-02	1.05	0.167	0.197	0.086
ACW03	U-233/234	NTS01-2483-02	1.52	0.418	0.518	0.143
ACW03	U-235	NTS01-2483-02	0.037	0.095	0.098	0.178
ACW03	U-238	NTS01-2483-02	0.529	0.250	0.272	0.186
ACW03	PU-238	NTS01-2483-02	-0.024	0.034	0.034	0.100
ACW03	PU-239/240	NTS01-2483-02	0.000	0.000	0.000	0.039
ACW03	AM-241	NTS01-2483-02	0.015	0.030	0.030	0.040
SRW01	SR-90	NTS01-2483-02	1.18	0.455	0.470	0.555

<u>Quality Control Samples</u>				
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Matrix Spike (MS)</u>	<u>Preparation Blank (PB)</u>
Gamma	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Sr	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
U	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Pu	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Am	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB

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EXCAVATION VERIFICATION SAMPLES

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Radioanalytical Results

Report Identification Number: S2483

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1225</u>	Matrix: <u>Waste</u>
Site Sample ID: <u>25400 583-V1</u>		
Other Sample ID:	Collection Date: <u>7/31/01</u>	Date Received: <u>8/3/01</u>
	Batch Number: <u>2483</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	CS-137	NTS01-2483-05	2.32	0.285	0.368	0.082
ACW03	U-233/234	NTS01-2483-05	2.22	0.521	0.685	0.124
ACW03	U-235	NTS01-2483-05	0.179	0.160	0.169	0.154
ACW03	U-238	NTS01-2483-05	0.621	0.259	0.287	0.070
ACW03	PU-238	NTS01-2483-05	-0.011	0.022	0.022	0.075
ACW03	PU-239/240	NTS01-2483-05	0.026	0.037	0.038	0.036
ACW03	AM-241	NTS01-2483-05	0.032	0.057	0.057	0.084
SRW01	SR-90	NTS01-2483-05	5.13	0.788	0.940	0.599

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Sr	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
U	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Pu	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB
Am	SCAQC-2483-LC1	SCAQC-2483-LD1		SCAQC-2483-PB

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Gamma Spectrometry

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Radioanalytical Results

Report Identification Number: S2659

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400570-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 1:30:00 PM</u>	Date Received: <u>11/8/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-01	29.2	3.23	4.35	0.415
EPA 901.1	CO-60	NTS01-2669-01	0.008	0.040	0.040	0.055
EPA 901.1	Y-88	NTS01-2669-01	0.018	0.023	0.023	0.049
EPA 901.1	RU-106	NTS01-2669-01	-0.012	0.287	0.287	0.488
EPA 901.1	SB-125	NTS01-2669-01	-0.018	0.076	0.076	0.130
EPA 901.1	CS-134	NTS01-2669-01	-0.010	0.029	0.029	0.042
EPA 901.1	CS-137	NTS01-2669-01	-0.037	0.033	0.033	0.050
EPA 901.1	CE-144	NTS01-2669-01	-0.182	2.45	2.45	0.371
EPA 901.1	PM-144	NTS01-2669-01	0.027	0.028	0.028	0.046
EPA 901.1	EU-152	NTS01-2669-01	0.023	0.075	0.075	0.132
EPA 901.1	EU-154	NTS01-2669-01	0.000	0.000	0.000	0.093
EPA 901.1	EU-155	NTS01-2669-01	0.312	0.158	0.159	0.211
EPA 901.1	PB-212	NTS01-2669-01	1.75	0.205	0.269	0.089
EPA 901.1	AC-228	NTS01-2669-01	1.70	0.290	0.336	0.192
EPA 901.1	TH-234	NTS01-2669-01	1.93	0.902	0.923	1.04
EPA 901.1	U-235	NTS01-2669-01	0.168	0.073	0.075	0.070
EPA 901.1	U-238	NTS01-2669-01	0.185	5.19	5.19	9.16
EPA 901.1	AM-241	NTS01-2669-01	-0.058	0.228	0.228	0.352

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1	SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400571-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 1:38:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-02	29.7	3.29	4.43	0.454
EPA 901.1	CO-60	NTS01-2669-02	0.029	0.044	0.044	0.048
EPA 901.1	Y-88	NTS01-2669-02	0.003	0.023	0.023	0.045
EPA 901.1	RU-106	NTS01-2669-02	0.248	0.264	0.265	0.486
EPA 901.1	SB-125	NTS01-2669-02	-0.000	0.079	0.079	0.138
EPA 901.1	CS-134	NTS01-2669-02	0.009	0.031	0.031	0.048
EPA 901.1	CS-137	NTS01-2669-02	0.097	0.045	0.046	0.058
EPA 901.1	CE-144	NTS01-2669-02	-0.199	2.55	2.55	0.375
EPA 901.1	PM-144	NTS01-2669-02	0.003	0.029	0.029	0.041
EPA 901.1	EU-152	NTS01-2669-02	0.012	0.080	0.080	0.139
EPA 901.1	EU-154	NTS01-2669-02	0.000	0.000	0.000	0.095
EPA 901.1	EU-155	NTS01-2669-02	0.252	0.164	0.166	0.207
EPA 901.1	PB-212	NTS01-2669-02	1.78	0.208	0.272	0.093
EPA 901.1	AC-228	NTS01-2669-02	1.94	0.306	0.362	0.184
EPA 901.1	TH-234	NTS01-2669-02	1.94	0.969	0.988	0.878
EPA 901.1	U-235	NTS01-2669-02	0.141	0.077	0.078	0.074
EPA 901.1	U-238	NTS01-2669-02	7.06	5.34	5.39	10.5
EPA 901.1	AM-241	NTS01-2669-02	-0.110	0.248	0.248	0.389

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2659

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1320</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400572-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 1:48:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	1 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-03	29.1	3.26	4.37	0.454
EPA 901.1	CO-60	NTS01-2669-03	-0.008	0.040	0.040	0.067
EPA 901.1	Y-88	NTS01-2669-03	0.012	0.023	0.024	0.051
EPA 901.1	RU-106	NTS01-2669-03	0.179	0.280	0.280	0.520
EPA 901.1	SB-125	NTS01-2669-03	0.048	0.081	0.081	0.144
EPA 901.1	CS-134	NTS01-2669-03	0.009	0.032	0.032	0.052
EPA 901.1	CS-137	NTS01-2669-03	0.071	0.045	0.045	0.059
EPA 901.1	CE-144	NTS01-2669-03	-1.41	2.48	2.48	0.389
EPA 901.1	PM-144	NTS01-2669-03	-0.001	0.031	0.031	0.047
EPA 901.1	EU-152	NTS01-2669-03	-0.003	0.083	0.083	0.138
EPA 901.1	EU-154	NTS01-2669-03	0.000	0.000	0.000	0.098
EPA 901.1	EU-155	NTS01-2669-03	0.339	0.151	0.155	0.207
EPA 901.1	PE-212	NTS01-2669-03	1.73	0.200	0.265	0.089
EPA 901.1	AC-228	NTS01-2669-03	1.86	0.309	0.361	0.205
EPA 901.1	TH-234	NTS01-2669-03	1.77	0.855	0.874	0.933
EPA 901.1	U-235	NTS01-2669-03	0.212	0.079	0.082	0.072
EPA 901.1	U-238	NTS01-2669-03	-0.504	5.96	5.96	10.4
EPA 901.1	AM-241	NTS01-2669-03	-0.236	0.201	0.202	0.224

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1	SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400573-V1</u>	Collection Date: <u>10/31/01 1:57:00 PM</u>	Date Received: <u>11/5/01</u>
Other Sample ID:	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-04	28.6	3.16	4.27	0.428
EPA 901.1	CO-60	NTS01-2669-04	0.027	0.037	0.037	0.050
EPA 901.1	Y-88	NTS01-2669-04	0.013	0.022	0.022	0.047
EPA 901.1	RU-106	NTS01-2669-04	0.078	0.273	0.273	0.475
EPA 901.1	SB-125	NTS01-2669-04	0.017	0.084	0.084	0.148
EPA 901.1	CS-134	NTS01-2669-04	0.007	0.027	0.027	0.042
EPA 901.1	CS-137	NTS01-2669-04	0.038	0.032	0.032	0.058
EPA 901.1	CE-144	NTS01-2669-04	-1.87	2.59	2.59	0.366
EPA 901.1	FM-144	NTS01-2669-04	-0.009	0.028	0.028	0.043
EPA 901.1	EU-152	NTS01-2669-04	-0.027	0.080	0.080	0.132
EPA 901.1	EU-154	NTS01-2669-04	0.000	0.000	0.000	0.098
EPA 901.1	EU-155	NTS01-2669-04	0.409	0.152	0.158	0.200
EPA 901.1	PB-212	NTS01-2669-04	1.76	0.205	0.270	0.083
EPA 901.1	AC-228	NTS01-2669-04	1.54	0.273	0.314	0.185
EPA 901.1	TH-234	NTS01-2669-04	2.57	0.983	1.02	0.884
EPA 901.1	U-235	NTS01-2669-04	0.158	0.061	0.063	0.089
EPA 901.1	U-238	NTS01-2669-04	1.75	5.30	5.31	9.69
EPA 901.1	AM-241	NTS01-2669-04	0.050	0.227	0.227	0.370

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400574-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 2:05:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-05	30.9	3.46	4.64	0.601
EPA 901.1	CO-60	NTS01-2669-05	0.017	0.042	0.042	0.065
EPA 901.1	Y-88	NTS01-2669-05	-0.011	0.025	0.026	0.046
EPA 901.1	RU-106	NTS01-2669-05	-0.001	0.279	0.279	0.502
EPA 901.1	SB-125	NTS01-2669-05	-0.008	0.085	0.085	0.146
EPA 901.1	CS-134	NTS01-2669-05	-0.005	0.034	0.034	0.052
EPA 901.1	CS-137	NTS01-2669-05	0.056	0.046	0.047	0.066
EPA 901.1	CE-144	NTS01-2669-05	-0.460	2.73	2.73	0.397
EPA 901.1	PM-144	NTS01-2669-05	0.017	0.034	0.034	0.051
EPA 901.1	EU-152	NTS01-2669-05	-0.046	0.087	0.088	0.145
EPA 901.1	EU-154	NTS01-2669-05	0.000	0.000	0.000	0.104
EPA 901.1	EU-155	NTS01-2669-05	0.373	0.156	0.160	0.222
EPA 901.1	PB-212	NTS01-2669-05	1.84	0.223	0.289	0.123
EPA 901.1	AC-228	NTS01-2669-05	1.88	0.317	0.369	0.218
EPA 901.1	TH-234	NTS01-2669-05	1.24	0.692	0.703	0.892
EPA 901.1	U-235	NTS01-2669-05	0.161	0.078	0.079	0.078
EPA 901.1	U-238	NTS01-2669-05	0.026	6.46	6.46	11.4
EPA 901.1	AM-241	NTS01-2669-05	-0.132	0.209	0.209	0.353

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400575-V1</u>	Collection Date: <u>10/31/01 2:12:00 PM</u>	Date Received: <u>11/6/01</u>
Other Sample ID:	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-06	31.7	3.53	4.74	0.458
EPA 901.1	Co-60	NTS01-2669-06	-0.017	0.043	0.043	0.051
EPA 901.1	Y-90	NTS01-2669-06	-0.005	0.026	0.026	0.047
EPA 901.1	Ru-106	NTS01-2669-06	-0.036	0.302	0.302	0.510
EPA 901.1	Sr-125	NTS01-2669-06	0.058	0.082	0.082	0.150
EPA 901.1	CS-134	NTS01-2669-06	0.012	0.032	0.032	0.050
EPA 901.1	CS-137	NTS01-2669-06	0.036	0.029	0.029	0.057
EPA 901.1	CE-144	NTS01-2669-06	2.70	2.67	2.68	0.397
EPA 901.1	PM-144	NTS01-2669-06	-0.013	0.029	0.029	0.050
EPA 901.1	EU-152	NTS01-2669-06	0.107	0.085	0.086	0.152
EPA 901.1	EU-154	NTS01-2669-06	0.000	0.000	0.000	0.102
EPA 901.1	EU-155	NTS01-2669-06	0.444	0.119	0.127	0.231
EPA 901.1	PB-212	NTS01-2669-06	1.88	0.220	0.290	0.091
EPA 901.1	AC-228	NTS01-2669-06	1.98	0.315	0.372	0.201
EPA 901.1	TH-234	NTS01-2669-06	1.80	0.656	0.675	1.21
EPA 901.1	U-235	NTS01-2669-06	0.003	0.054	0.055	0.076
EPA 901.1	U-238	NTS01-2669-06	3.91	5.76	5.77	10.7
EPA 901.1	AM-241	NTS01-2669-06	0.051	0.252	0.252	0.410

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1	SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400576-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 2:19:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-07	30.6	3.35	4.54	0.422
EPA 901.1	CO-60	NTS01-2669-07	0.026	0.043	0.043	0.058
EPA 901.1	Y-88	NTS01-2669-07	-0.016	0.023	0.023	0.040
EPA 901.1	RU-106	NTS01-2669-07	0.071	0.254	0.254	0.465
EPA 901.1	SB-125	NTS01-2669-07	-0.006	0.082	0.082	0.140
EPA 901.1	CS-134	NTS01-2669-07	0.031	0.030	0.030	0.051
EPA 901.1	CS-137	NTS01-2669-07	0.129	0.044	0.046	0.081
EPA 901.1	CE-144	NTS01-2669-07	-0.436	2.58	2.58	0.372
EPA 901.1	PM-144	NTS01-2669-07	0.002	0.030	0.030	0.049
EPA 901.1	EU-152	NTS01-2669-07	-0.033	0.081	0.081	0.134
EPA 901.1	EU-154	NTS01-2669-07	0.000	0.000	0.000	0.096
EPA 901.1	EU-155	NTS01-2669-07	0.309	0.166	0.168	0.214
EPA 901.1	PB-212	NTS01-2669-07	1.70	0.214	0.274	0.122
EPA 901.1	AC-228	NTS01-2669-07	1.65	0.284	0.329	0.200
EPA 901.1	TH-234	NTS01-2669-07	1.62	0.826	0.842	0.894
EPA 901.1	U-235	NTS01-2669-07	0.184	0.077	0.080	0.069
EPA 901.1	U-238	NTS01-2669-07	1.21	5.25	5.25	9.52
EPA 901.1	AM-241	NTS01-2669-07	-0.039	0.190	0.190	0.328

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1	SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400577V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 2:25:00 PM</u>	Date Received: <u>11/5/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-08	27.6	3.10	4.15	0.453
EPA 901.1	CO-60	NTS01-2669-08	0.013	0.044	0.044	0.057
EPA 901.1	Y-88	NTS01-2669-08	0.012	0.027	0.027	0.054
EPA 901.1	RU-106	NTS01-2669-08	-0.026	0.279	0.279	0.474
EPA 901.1	SB-125	NTS01-2669-08	0.006	0.078	0.078	0.138
EPA 901.1	CS-134	NTS01-2669-08	0.011	0.032	0.032	0.049
EPA 901.1	CS-137	NTS01-2669-08	0.022	0.034	0.035	0.061
EPA 901.1	CE-144	NTS01-2669-08	1.20	2.54	2.54	0.370
EPA 901.1	PM-144	NTS01-2669-08	-0.005	0.029	0.029	0.047
EPA 901.1	EU-152	NTS01-2669-08	-0.057	0.080	0.080	0.133
EPA 901.1	EU-154	NTS01-2669-08	0.000	0.000	0.000	0.095
EPA 901.1	EU-155	NTS01-2669-08	0.322	0.146	0.149	0.214
EPA 901.1	PB-212	NTS01-2669-08	1.74	0.208	0.271	0.094
EPA 901.1	AC-228	NTS01-2669-08	1.61	0.282	0.325	0.202
EPA 901.1	TH-234	NTS01-2669-08	1.71	1.03	1.05	1.02
EPA 901.1	U-235	NTS01-2669-08	0.153	0.077	0.078	0.072
EPA 901.1	U-238	NTS01-2669-08	0.845	5.86	5.87	10.1
EPA 901.1	AM-241	NTS01-2669-08	0.001	0.256	0.256	0.381

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bachtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400578-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 2:35:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-09	29.4	3.26	4.39	0.425
EPA 901.1	CO-60	NTS01-2669-09	0.011	0.041	0.041	0.054
EPA 901.1	Y-88	NTS01-2669-09	0.039	0.023	0.023	0.058
EPA 901.1	RU-106	NTS01-2669-09	-0.205	0.252	0.253	0.424
EPA 901.1	SB-125	NTS01-2669-09	-0.015	0.083	0.083	0.142
EPA 901.1	CS-134	NTS01-2669-09	-0.010	0.031	0.031	0.046
EPA 901.1	CS-137	NTS01-2669-09	0.001	0.032	0.032	0.058
EPA 901.1	CE-144	NTS01-2669-09	-0.626	2.40	2.40	0.350
EPA 901.1	PM-144	NTS01-2669-09	0.011	0.030	0.030	0.042
EPA 901.1	EU-152	NTS01-2669-09	0.023	0.080	0.080	0.137
EPA 901.1	EU-154	NTS01-2669-09	0.000	0.000	0.000	0.092
EPA 901.1	EU-155	NTS01-2669-09	0.196	0.132	0.134	0.207
EPA 901.1	PB-212	NTS01-2669-09	1.78	0.205	0.272	0.088
EPA 901.1	AC-228	NTS01-2669-09	1.85	0.319	0.369	0.202
EPA 901.1	TH-234	NTS01-2669-09	1.01	0.738	0.745	0.892
EPA 901.1	U-235	NTS01-2669-09	0.088	0.069	0.070	0.073
EPA 901.1	U-238	NTS01-2669-09	-1.98	5.62	5.63	9.62
EPA 901.1	AM-241	NTS01-2669-09	-0.053	0.193	0.193	0.332

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1	SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400579-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 2:41:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-10	30.5	3.39	4.56	0.483
EPA 901.1	CO-60	NTS01-2669-10	-0.002	0.042	0.042	0.055
EPA 901.1	Y-88	NTS01-2669-10	0.000	0.025	0.025	0.048
EPA 901.1	RU-106	NTS01-2669-10	0.111	0.284	0.284	0.500
EPA 901.1	SB-125	NTS01-2669-10	0.002	0.085	0.085	0.149
EPA 901.1	CS-134	NTS01-2669-10	-0.014	0.034	0.034	0.048
EPA 901.1	CS-137	NTS01-2669-10	0.119	0.053	0.055	0.059
EPA 901.1	CE-144	NTS01-2669-10	-2.19	2.65	2.66	0.387
EPA 901.1	PM-144	NTS01-2669-10	0.027	0.030	0.030	0.048
EPA 901.1	EU-152	NTS01-2669-10	-0.018	0.082	0.082	0.141
EPA 901.1	EU-154	NTS01-2669-10	0.000	0.000	0.000	0.098
EPA 901.1	EU-155	NTS01-2669-10	0.420	0.156	0.162	0.219
EPA 901.1	PB-212	NTS01-2669-10	1.87	0.220	0.289	0.101
EPA 901.1	AC-228	NTS01-2669-10	1.86	0.319	0.369	0.170
EPA 901.1	TH-234	NTS01-2669-10	1.85	0.661	0.686	1.21
EPA 901.1	U-235	NTS01-2669-10	0.205	0.085	0.087	0.076
EPA 901.1	U-238	NTS01-2669-10	2.44	5.44	5.45	9.99
EPA 901.1	AM-241	NTS01-2669-10	-0.124	0.248	0.248	0.386

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400580-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 2:45:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-11	35.0	3.88	5.23	0.586
EPA 901.1	CO-60	NTS01-2669-11	0.005	0.049	0.049	0.080
EPA 901.1	Y-88	NTS01-2669-11	0.015	0.024	0.024	0.054
EPA 901.1	RU-106	NTS01-2669-11	-0.218	0.316	0.317	0.538
EPA 901.1	SB-125	NTS01-2669-11	-0.042	0.088	0.089	0.148
EPA 901.1	CS-134	NTS01-2669-11	0.007	0.036	0.036	0.058
EPA 901.1	CS-137	NTS01-2669-11	0.056	0.051	0.051	0.069
EPA 901.1	CE-144	NTS01-2669-11	1.17	2.83	2.83	0.419
EPA 901.1	PM-144	NTS01-2669-11	-0.022	0.034	0.034	0.056
EPA 901.1	EU-152	NTS01-2669-11	-0.073	0.096	0.096	0.157
EPA 901.1	EU-154	NTS01-2669-11	0.000	0.000	0.000	0.112
EPA 901.1	EU-155	NTS01-2669-11	0.272	0.174	0.176	0.240
EPA 901.1	PB-212	NTS01-2669-11	2.08	0.240	0.317	0.102
EPA 901.1	AC-228	NTS01-2669-11	2.42	0.388	0.466	0.221
EPA 901.1	TH-234	NTS01-2669-11	1.04	0.675	0.683	1.10
EPA 901.1	U-235	NTS01-2669-11	0.264	0.086	0.090	0.084
EPA 901.1	U-238	NTS01-2669-11	2.82	8.87	6.88	12.5
EPA 901.1	AM-241	NTS01-2669-11	-0.160	0.221	0.222	0.371

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400581-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 2:54:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2569</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-12	28.4	3.14	4.23	0.411
EPA 901.1	CO-60	NTS01-2669-12	-0.021	0.039	0.039	0.055
EPA 901.1	Y-88	NTS01-2669-12	0.006	0.022	0.022	0.043
EPA 901.1	RU-106	NTS01-2669-12	-0.218	0.267	0.268	0.425
EPA 901.1	SB-125	NTS01-2669-12	0.029	0.073	0.074	0.131
EPA 901.1	CS-134	NTS01-2669-12	0.008	0.028	0.029	0.044
EPA 901.1	CS-137	NTS01-2669-12	0.004	0.030	0.030	0.052
EPA 901.1	GE-144	NTS01-2669-12	-0.156	2.34	2.34	0.335
EPA 901.1	PM-144	NTS01-2669-12	-0.021	0.027	0.027	0.045
EPA 901.1	EU-152	NTS01-2669-12	-0.052	0.074	0.074	0.123
EPA 901.1	EU-154	NTS01-2669-12	0.000	0.000	0.000	0.087
EPA 901.1	EU-155	NTS01-2669-12	0.303	0.148	0.151	0.200
EPA 901.1	PB-212	NTS01-2669-12	1.66	0.195	0.257	0.078
EPA 901.1	AC-228	NTS01-2669-12	1.67	0.310	0.352	0.190
EPA 901.1	TH-234	NTS01-2669-12	1.52	0.740	0.758	0.999
EPA 901.1	U-235	NTS01-2669-12	0.090	0.065	0.066	0.069
EPA 901.1	U-238	NTS01-2669-12	2.34	5.23	5.23	9.49
EPA 901.1	AM-241	NTS01-2669-12	0.148	0.220	0.221	0.360

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400582-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:01:00 PM</u>	Date Received: <u>11/6/01</u>
	Batch Number: <u>2569</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-13	28.3	3.19	4.26	0.504
EPA 901.1	CO-60	NTS01-2669-13	0.015	0.041	0.041	0.063
EPA 901.1	Y-88	NTS01-2669-13	0.015	0.026	0.026	0.056
EPA 901.1	RU-106	NTS01-2669-13	0.004	0.268	0.268	0.481
EPA 901.1	SB-125	NTS01-2669-13	-0.044	0.083	0.083	0.138
EPA 901.1	CS-134	NTS01-2669-13	0.012	0.028	0.028	0.046
EPA 901.1	CS-137	NTS01-2669-13	0.005	0.031	0.031	0.055
EPA 901.1	CE-144	NTS01-2669-13	2.42	2.46	2.47	0.362
EPA 901.1	PM-144	NTS01-2669-13	-0.017	0.030	0.030	0.046
EPA 901.1	EU-152	NTS01-2669-13	-0.011	0.080	0.080	0.135
EPA 901.1	EU-154	NTS01-2669-13	0.000	0.000	0.000	0.097
EPA 901.1	EU-155	NTS01-2669-13	0.358	0.150	0.154	0.203
EPA 901.1	PB-212	NTS01-2669-13	1.72	0.202	0.265	0.092
EPA 901.1	AC-228	NTS01-2669-13	1.59	0.371	0.404	0.187
EPA 901.1	TH-234	NTS01-2669-13	1.38	0.825	0.836	0.985
EPA 901.1	U-235	NTS01-2669-13	0.200	0.087	0.089	0.067
EPA 901.1	U-238	NTS01-2669-13	-3.73	6.11	6.12	10.2
EPA 901.1	AM-241	NTS01-2669-13	0.021	0.194	0.194	0.339

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1	SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400583-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:09:00 PM</u>	Date Received: <u>11/5/01</u>
	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-14	29.2	3.27	4.38	0.474
EPA 901.1	CO-60	NTS01-2669-14	-0.004	0.047	0.047	0.059
EPA 901.1	Y-88	NTS01-2669-14	0.019	0.026	0.026	0.057
EPA 901.1	RU-106	NTS01-2669-14	-0.052	0.281	0.281	0.497
EPA 901.1	SB-125	NTS01-2669-14	-0.041	0.078	0.078	0.130
EPA 901.1	CS-134	NTS01-2669-14	0.025	0.032	0.032	0.053
EPA 901.1	CS-137	NTS01-2669-14	-0.014	0.031	0.031	0.053
EPA 901.1	CE-144	NTS01-2669-14	0.068	2.55	2.55	0.372
EPA 901.1	PM-144	NTS01-2669-14	-0.005	0.031	0.031	0.052
EPA 901.1	EU-152	NTS01-2669-14	-0.030	0.084	0.084	0.140
EPA 901.1	EU-154	NTS01-2669-14	0.000	0.000	0.000	0.097
EPA 901.1	EU-155	NTS01-2669-14	0.199	0.134	0.136	0.206
EPA 901.1	PB-212	NTS01-2669-14	1.74	0.204	0.268	0.094
EPA 901.1	AC-228	NTS01-2669-14	1.72	0.303	0.349	0.208
EPA 901.1	TH-234	NTS01-2669-14	3.15	1.10	1.14	0.883
EPA 901.1	U-235	NTS01-2669-14	0.146	0.070	0.071	0.077
EPA 901.1	U-238	NTS01-2669-14	0.211	0.39	0.39	11.3
EPA 901.1	AM-241	NTS01-2669-14	0.035	0.198	0.198	0.346

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2569

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400584-V1</u>	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/8/01</u>
Other Sample ID:	Batch Number: <u>2669</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-15	30.2	3.34	4.50	0.330
EPA 901.1	CO-60	NTS01-2669-15	0.022	0.045	0.045	0.057
EPA 901.1	Y-88	NTS01-2669-15	0.010	0.023	0.024	0.048
EPA 901.1	RU-106	NTS01-2669-15	0.088	0.468	0.468	0.787
EPA 901.1	SB-125	NTS01-2669-15	0.114	0.220	0.220	0.375
EPA 901.1	CS-134	NTS01-2669-15	-0.015	0.054	0.054	0.076
EPA 901.1	CS-137	NTS01-2669-15	33.1	3.25	4.64	0.080
EPA 901.1	CE-144	NTS01-2669-15	1.23	4.44	4.44	0.673
EPA 901.1	PM-144	NTS01-2669-15	0.021	0.032	0.032	0.055
EPA 901.1	EU-152	NTS01-2669-15	-0.050	0.147	0.147	0.247
EPA 901.1	EU-154	NTS01-2669-15	0.000	0.000	0.000	0.173
EPA 901.1	EU-155	NTS01-2669-15	0.187	0.191	0.192	0.334
EPA 901.1	PB-212	NTS01-2669-15	1.77	0.231	0.291	0.183
EPA 901.1	AC-228	NTS01-2669-15	1.82	0.286	0.339	0.486
EPA 901.1	TH-234	NTS01-2669-15	-0.243	1.01	1.01	1.74
EPA 901.1	U-235	NTS01-2669-15	0.279	0.126	0.129	0.145
EPA 901.1	U-238	NTS01-2669-15	-2.06	5.68	5.68	9.65
EPA 901.1	AM-241	NTS01-2669-15	-0.280	0.431	0.432	0.662

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

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Radioanalytical Results

Report Identification Number: S2669

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>V1328</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>25400584-V2</u>	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/5/01</u>
Other Sample ID:	Batch Number: <u>2569</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2669-16	31.3	3.50	4.69	0.532
EPA 901.1	CO-60	NTS01-2669-16	0.046	0.045	0.045	0.070
EPA 901.1	Y-88	NTS01-2669-16	-0.001	0.024	0.024	0.047
EPA 901.1	RU-106	NTS01-2669-16	-0.211	0.286	0.287	0.485
EPA 901.1	SB-125	NTS01-2669-16	0.015	0.087	0.087	0.152
EPA 901.1	CS-134	NTS01-2669-16	0.006	0.032	0.032	0.051
EPA 901.1	CS-137	NTS01-2669-16	-0.027	0.034	0.034	0.057
EPA 901.1	CE-144	NTS01-2669-16	0.324	2.67	2.67	0.389
EPA 901.1	PM-144	NTS01-2669-16	0.013	0.030	0.030	0.054
EPA 901.1	EU-152	NTS01-2669-16	0.018	0.087	0.087	0.147
EPA 901.1	EU-154	NTS01-2669-16	0.000	0.000	0.000	0.101
EPA 901.1	EU-155	NTS01-2669-16	0.381	0.179	0.183	0.226
EPA 901.1	PB-212	NTS01-2669-16	1.70	0.213	0.273	0.134
EPA 901.1	AC-228	NTS01-2669-16	1.85	0.391	0.432	0.218
EPA 901.1	TH-234	NTS01-2669-16	1.77	1.10	1.11	0.998
EPA 901.1	U-235	NTS01-2669-16	0.136	0.074	0.075	0.082
EPA 901.1	U-238	NTS01-2669-16	-0.710	6.18	6.18	10.8
EPA 901.1	AM-241	NTS01-2669-16	0.065	0.213	0.213	0.372

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2669-LC1	SCAQC-2669-LD1		SCAQC-2669-PB

C-85

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Recount of Sample 25400584-V1

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2697

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Its Sample ID: <u>2669-15 (254CQ364-V1)</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/27/01</u>
	Batch Number: <u>2697</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2697-01	26.2	4.11	4.98	1.18
EPA 901.1	CS-137	NTS01-2697-01	1.88	0.285	0.342	0.111
EPA 901.1	PB-212	NTS01-2697-01	1.60	0.244	0.292	0.173
EPA 901.1	TH-234	NTS01-2697-01	1.76	1.28	1.29	1.52
EPA 901.1	U-235	NTS01-2697-01	0.139	0.124	0.125	0.127

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Preparation Blank (PB)
Gamma	SCAQC-2697-LC1	SCAQC-2697-LD1	SCAQC-2697-PB

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2597

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>2599-15 (25400584-V1)</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/27/01</u>
	Batch Number: <u>2597</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2597-02	27.1	3.98	4.82	1.19
EPA 901.1	CS-137	NTS01-2597-02	1.49	0.230	0.274	0.112
EPA 901.1	PB-212	NTS01-2597-02	1.53	0.239	0.284	0.162

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2597-LC1	SCAQC-2597-LD1		SCAQC-2597-PB

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2697

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>2669-15 (25400584-V1)</u>		
Other Sample ID:	Collection Date: <u>10/31/01</u>	Date Received: <u>11/27/01</u>
	Batch Number: <u>2697</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2697-03	25.1	3.80	4.55	0.936
EPA 901.1	CS-137	NTS01-2697-03	1.63	0.242	0.292	0.101
EPA 901.1	PB-212	NTS01-2697-03	1.54	0.225	0.273	0.140
EPA 901.1	TH-234	NTS01-2697-03	2.33	1.16	1.18	1.40
EPA 901.1	U-235	NTS01-2697-03	0.138	0.128	0.127	0.108

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2697-LC1	SCAQC-2697-LD1		SCAQC-2697-PB

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2697

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>2669-15 (25400584-V1)</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/27/01</u>
	Batch Number: <u>2697</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MOA (pCi/g)
EPA 901.1	K-40	NTS01-2697-04	26.9	4.17	4.96	1.44
EPA 901.1	CS-137	NTS01-2697-04	1.34	0.211	0.250	0.110
EPA 901.1	PB-212	NTS01-2697-04	1.67	0.260	0.326	0.200

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2697-LC1	SCAQC-2697-LD1		SCAQC-2697-PB

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: 52697

Project Name: <u>Beghtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Re Sample ID: <u>2669-15 (254G056--V1)</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/27/01</u>
	Batch Number: <u>2697</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2697-05	25.0	3.65	4.42	0.718
EPA 901.1	CS-137	NTS01-2697-05	3.10	0.379	0.489	0.098
EPA 901.1	PB-212	NTS01-2697-05	1.35	0.206	0.246	0.158
EPA 901.1	TH-234	NTS01-2697-05	1.84	1.10	1.12	1.15

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gamma	SCAQC-2697-LC1	SCAQC-2697-LD1		SCAQC-2697-PB

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2697

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>2669-15 (25400584-V1)</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/27/01</u>
	Batch Number: <u>2697</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2697-06	26.9	3.81	4.67	1.14
EPA 901.1	CS-137	NTS01-2697-06	1.51	0.226	0.271	0.108
EPA 901.1	PB-212	NTS01-2697-06	1.45	0.241	0.281	0.206
EPA 901.1	U-235	NTS01-2697-06	0.307	0.132	0.136	0.112

Quality Control Samples			
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)
Gamma	SCAQC-2697-LC1	SCAQC-2697-LD1	Preparation Blank (PB) SCAQC-2697-PB

Sanford Cohen & Associates
Southeastern Environmental Laboratory

Radioanalytical Results

Report Identification Number: S2697

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
Site Sample ID: <u>2669-15 (25400584-V1)</u>	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/27/01</u>
Other Sample ID:	Batch Number: <u>2697</u>	Laboratory Code: <u>SCA</u>

Method Number	Radionuclide	Laboratory Sample ID	Activity (pCi/g)	2 σ Counting Error (pCi/g)	Total Error (pCi/g)	MDA (pCi/g)
EPA 901.1	K-40	NTS01-2697-07	26.0	3.63	4.46	0.950
EPA 901.1	CS-137	NTS01-2697-07	1.58	0.232	0.281	0.096
EPA 901.1	PB-212	NTS01-2697-07	1.40	0.213	0.255	0.141
EPA 901.1	TH-234	NTS01-2697-07	1.64	0.861	0.877	1.03
EPA 901.1	U-235	NTS01-2697-07	0.133	0.104	0.105	0.108

Quality Control Samples				
Radionuclide	Laboratory Control (LC)	Laboratory Duplicate (LD)	Matrix Spike (MS)	Preparation Blank (PB)
Gammas	SCAQC-2697-LC1	SCAQC-2697-LD1		SCAQC-2697-PB

**Sanford Cohen & Associates
Southeastern Environmental Laboratory**

Radioanalytical Results

Report Identification Number: 52697

Project Name: <u>Bechtel Nevada</u>	Chain-of-Custody Number: <u>NONE</u>	Matrix: <u>Soil</u>
its Sample ID: <u>2669-15 (25400584-V1</u>		
Other Sample ID:	Collection Date: <u>10/31/01 3:17:00 PM</u>	Date Received: <u>11/27/01</u>
	Batch Number: <u>2697</u>	Laboratory Code: <u>SGA</u>

<u>Method Number</u>	<u>Radionuclide</u>	<u>Laboratory Sample ID</u>	<u>Activity (pCi/g)</u>	<u>2 σ Counting Error (pCi/g)</u>	<u>Total Error (pCi/g)</u>	<u>MDA (pCi/g)</u>
EPA 901.1	K-40	NTS01-2697-08	26.6	3.61	4.64	1.06
EPA 901.1	CS-137	NTS01-2697-08	169	16.5	23.6	0.308
EPA 901.1	PB-212	NTS01-2697-08	1.12	0.519	0.531	0.582
EPA 901.1	U-235	NTS01-2697-08	0.660	0.356	0.382	0.422

<u>Quality Control Samples</u>			
<u>Radionuclide</u>	<u>Laboratory Control (LC)</u>	<u>Laboratory Duplicate (LD)</u>	<u>Preparation Blank (PB)</u>
Gamma	SCAQC-2697-LC1	SCAQC-2697-LD1	SCAQC-2697-PB

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APPENDIX D

WASTE DISPOSITION DOCUMENTATION

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APPENDIX D

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AREA 5 TRU PAD INVENTORY

Bechtel Nevada

Mailing address: P.O. Box 98521
Las Vegas, NV 89193-8521

Express mail only: 2621 Losee Road
North Las Vegas, NV 89030-4129

B500-MN-02-0061

January 23, 2002

E. F. Di Sanza, Director
Waste Management Division
National Nuclear Security Administration
Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

Subject: **NOTIFICATION OF ASBESTIFORM MIXED LOW-LEVEL AND MIXED LOW-LEVEL WASTE FROM CORRECTIVE ACTION UNIT (CAU) 254 SUBJECT TO THE MUTUAL CONSENT AGREEMENT (MCA)**
Project No. 04068

This letter is being sent to notify the National Nuclear Security Administration Nevada Operations Office (NNSA/NV) that Bechtel Nevada (BN) placed four 55-gallon drums of asbestiform mixed low-level waste (F001, F003, and F005) and one 55-gallon drum of mixed low-level waste (D008, F001, F003 and F005) on the NTS Transuranic (TRU) Pad on January 10, 2002 for storage.

The four 55-gallon drums of asbestiform mixed low-level waste (MCA #BN254010201) are pending receipt of the Nevada Division of Environmental Protection approval to dispose of this material in the NTS Area 5 Pit 3 mixed waste disposal cell. This waste complies with the treatment standards specified in 40 CFR part 268 subpart D at the point of generation.

The one 55-gallon drum mixed low-level waste (MCA #BN254010202) contains lead bricks and lead debris and is pending arrangements for treatment prior to disposal to meet the land disposal restrictions treatment standards.

BN will notify NNSA/NV when these waste streams are removed from the TRU Pad for disposal or treatment and disposal.

If you have any questions or need additional information, please contact Harry A. Perry at 295-0685.

/s/ Signature on file

Michael B. Noland, Project Manager
Waste Management Project

HAP:cas
Subject Code: WMT 13

B500-MN-02-0061

E. F. DiSanza

Page 2 of 2

January 23, 2002

cc: Correspondence Control, NLV008

B. J. Becker, BN, NLV083

M. O. Giblin, NNSA/NV, 505

P. L. Hapke, BN, NTS110

M. J. Krauss, BN, NTS402

P. K. Matthews, BN, NLV081

S. L. Pfeuffer, BN, NLV080

H. A. Perry, BN, NTS110

C. A. Stevens, BN, NTS110

Manifest
Document
No.:

Bechtel Nevada

Page 1 of 1

0 | 2 | N | 2 | 1

Generation Date: 06/13/01

ONSITE WASTE TRANSPORT MANIFEST

1. Generator's Name, Organization, and Location: (Please Print)

Harry A. Perry
Bechtel Nevada for USDOE
NTS Area 25, R-MAD Decon Facility

Generator's Phone: (702) 295-0685

2. Receiving Facility, Organization, Location: (Please Print)

Harry A. Perry
Bechtel Nevada for USDOE
NTS Area 5, TRU Pad

Facility Phone: (702) 295-0685

3a. Transporter Name:
(Please Print)

JOHN ROSS

Transport Date:

1-10-01

3b. Vehicle I.D. Number:

8790 + 8467

4. U.S. D.O.T. Description. Include: EPA Waste Code and Package Identification Numbers.

5. Containers

6. Total
Quantity.

7. Unit
Wt./Vol.

No.

Type

HM

RQ

Waste, asbestos, 9, NA2212, III, F001, F003, F005

4

DM

640

lb

X

Hazardous waste, solid, n.o.s. (lead, 1,1,1-trichloroethyne, acetone, toluene), 9, NA3077, III, D008, F001, F003, F005

1

DM

702

lb

Use continuation pages for additional items, as necessary.

8. Special Handling Instructions and Additional Information:

24 Hour emergency contact: 702 - 295-6400

a. ERG No. 171, TID No: 501731, 50128, 50177, 50179

b. ERG No. 171, TID No: 50135

9. Released by: (Signature)

/s/ Signature on file

Date:

1/9/02

10. Received for Transport by: (Signature)

/s/ Signature on file

Date:

1/10/02

11. Discrepancy Indication:

12. Disposal/Accumulation Site Signature:
(Acknowledges acceptance of waste)

/s/ Signature on file

Date:

1/10/02

Distribution: Original : RWO
Copy : Generator

8N-0288 (04/01)

**CERTIFICATE OF DESTRUCTION LETTER for the
TURBULATOR VENT STACK FILTER**

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NFT Incorporated

Environmental Services/Products
Sample Management Office

October 30, 2001

Bechtel Nevada Corporation
Attn: Troy Belka
Nevada Test Site
P. O. Box 98521
Las Vegas, Nevada 89193-8521

Re: Sample Disposition for TSCAI Characterization Project

Dear Mr. Belka:

This letter is to document that both TSCAI characterization samples have been consumed at the laboratories during analysis. No sample material will be returned to Bechtel Nevada. The analysis residuals are the responsibility of the laboratories per our laboratory contracts. All laboratories have disposed of their residuals per their internal practices.

Should you have further questions, please feel free to contact me at (865) 241-1492. We look forward to future opportunities to work with Bechtel Nevada.

Sincerely,

/s/ Signature on file

Marie Meszaros
Senior Project Manager
NFT Incorporated



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**CERTIFICATES OF DISPOSAL; AREAS 3 & 5 RADIOACTIVE
WASTE MANAGEMENT SITES (RWMS)**

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-LLFY01022 package number 01L025 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date _____

9-25-01

E. TAKAHASHI

BN Rooms

SCIENTIST.

Received by

Organization

Title

/s/ Signature on file

Signature

Date _____

9/25/01

NTS On-Site HazMat Transfer - Published

Tracking No: DPL01015

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: ~~SEN JAMES~~ JARED LANGE

CDL:

4300554430
SA 1-1-7-01
1500094815

NV

Depart: 25-SEP-2001 10:00

Arrival: 25-SEP-2001 12:00

From: STEFAN DUKE
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-7365

Pager: 702-794-8713

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 03

Bldg: 3C36 (AHAT)

Phone: 702-295-8808

Alt. Phone: 702-295-8811

Pager:

Mobile:

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
NON-REGULATED WASTE	1 TRUCK LOAD(S)	55,485.00 KILOGRAM(S) (GROSS)	—	—
WASTE				

24-Hr Emergency Response Phone Number

702/295-6400

Entered by: DUKESJ

Date Mod/Ed: 18-SEP-2001

EMERGENCY RESPONSE

By Phone
702-295-6400

By Radio
'MAYDAY - MAYDAY - MAYDAY'

In the event of an incident involving Hazardous Material:

1. Gather HazMat shipping papers and NAER Guidebook
2. Isolate the immediate area
3. Assess the situation:
 - a. Fire, Spill, or Leak?
 - b. People, Property, or the Environment at risk?
4. Contact On-site Emergency Response Personnel
5. Reference On-Site HazMat Transfer Tracking Number

This is to certify that the above-named materials are properly classified, described, packaged, marked, placarded, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation. As a signatory I certify that I have been trained and tested to the requirements of 49 CFR, Part 172-700.

/s/ Signature on file

Authorized Signature:

Date: 9-25-01 Time: 1000

Received by: /s/ Signature on file

Date: 9-25-01 Time: 10160

/s/ Signature on file

NAME: 7/1
DATE: 9/25/01 BECHTEL NEVADA RWP

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-LLFY01022 package number 01L026 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

9-25-01

ED TAKAHASHI

Received by

BN - RWMS

Organization

Title

SCIENTIST

/s/ Signature on file

Signature

Date

9/25/2001

NTS On-Site HazMat Transfer - Published

Tracking No: DPL01016

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: JARED LANGE

CDL:

930055480
UNKNOWN

NV

Depart: 25-SEP-2001 10:00

Arrival: 25-SEP-2001 12:00

From: STEFAN DUKE
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Area: 03

Bldg: R-MAD

Bldg: 3C36 (AHAT)

Phone: 702-295-7365

Phone: 702-295-6808

Alt. Phone: 702-295-6811

Pager: 702-794-6713

Pager:

Mobile:

Mobile:

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No
NON-REGULATED WASTE	1 TRUCK LOAD(S)	51,110.00 KILOGRAM(S) (GROSS)	—	—
WASTE				

24-Hr Emergency Response Phone Number

702/295-6400

Entered by: DUKESJ

Date Modified: 19-SEP-2001

EMERGENCY RESPONSE

In the event of an incident involving Hazardous Material:

1. Gather HazMat shipping papers and NAER Guidebook
2. Isolate the immediate area
3. Assess the situation:
 - a. Fire, Spill, or Leak?
 - b. People, Property, or the Environment at risk?
4. Contact On-site Emergency Response Personnel
5. Reference On-Site HazMat Transfer Tracking Number

This is to certify that the above-named materials are properly classified, described, packaged, marked, placarded, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation. As a signatory I certify that I have been trained and tested to the requirements of 49 CFR, Part 172-700.

Authorized Signature: /s/ Signature on file

Date: 9-25-01 Time: 1300

Received by: /s/ Signature on file

Date: 9/25/01 Time: 1410

/s/ Signature on file

NAME

DATE 9/25/01 BECHTEL NEVADA RWP

0-17

9/19/2001

1 of 1

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-LLFY01022 package number 01L027 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

9-25-01

Ed TAKAHASHI

BN ROOMS

Title

SCIENTIST.

Received by

Organization

/s/ Signature on file

Signature

Date

26-SEP-2001

NTS On-Site HazMat Transfer - Published

Tracking No: DPL01017

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: ~~KEN JAMES~~ *Sarah Lange*

CDL:

~~4538894813~~

NV

Depart: 26-SEP-2001 08:30

Arrival: 26-SEP-2001 10:30

From: STEFAN DUKE
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023
Area: 25
Bldg: R-MAD
Phone: 702-295-7365

Pager: 702-794-6713
Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023
Area: 03
Bldg: 3C36 (AHAT)
Phone: 702-295-6808
Alt. Phone: 702-295-6811
Pager:
Mobile:

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
NON-REGULATED WASTE	1 TRUCK LOAD(S)	52,072.00 KILOGRAM(S) (GROSS)	—	—
WASTE				

24-Hr Emergency Response Phone Number

702/295-6400

Entered by: DUKESJ

Date Modified: 19-SEP-2001

EMERGENCY RESPONSE

By Phone
702-295-6400

By Radio
'MAYDAY - MAYDAY - MAYDAY'

In the event of an incident involving Hazardous Material:

1. Gather HazMat shipping papers and NAER Guidebook
2. Isolate the immediate area
3. Assess the situation:
 - a. Fire, Spill, or Leak?
 - b. People, Property, or the Environment at risk?
4. Contact On-site Emergency Response Personnel
5. Reference On-Site HazMat Transfer Tracking Number

This is to certify that the above-named materials are properly classified, described, packaged, marked, placarded, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation. As a signatory I certify that I have been trained and tested to the requirements of 49 CFR, Part 172-700.

Authorized Signature: /s/ Signature on file

Date: 9-26-00

Time: 0849

Received by: /s/ Signature on file

Date: 9/26/01

Time: 1100

NAME /s/ Signature on file

DATE 9/26/01 BECHTEL NEVADA RWP

9/25/2001

1 of 1

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-LLFY01022 package number 01L028 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date _____

9-27-01

9-25-01
504-1701

/s/ Signature on file

Received by

Organization

Title

BN RWMS

SCIENTIST.

/s/ Signature on file

Signature

Date _____

9/28/07

0-20

NTS On-Site HazMat Transfer - Published

Tracking No: DPL01018

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: JARED LANGE

CDL:

UNKNOWN

NV

Depart: 27-SEP-2001 08:00

Arrival: 27-SEP-2001 10:00

From: STEFAN DUKE
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-7365

Pager: 702-794-6713

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 03

Bldg: 3C36 (AHAT)

Phone: 702-295-6806

Alt. Phone: 702-295-6811

Pager:

Mobile:

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
NON-REGULATED WASTE	1 TRUCK LOAD(S)	23,691.00 KILOGRAM(S) (GROSS)	—	—
WASTE				

24-Hr Emergency Response Phone Number

702/295-6400

Entered by: DUKESJ

Date Modified: 19-SEP-2001

EMERGENCY RESPONSE

In the event of an incident involving Hazardous Material:

By Phone
702-295-6400

By Radio
'MAYDAY - MAYDAY- MAYDAY'

1. Gather HazMat shipping papers and NAER Guidebook
2. Isolate the immediate area
3. Assess the situation;
 - a. Fire, Spill, or Leak?
 - b. People, Property, or the Environment at risk?
4. Contact On-site Emergency Response Personnel
5. Reference On-Site HazMat Transfer Tracking Number

This is to certify that the above-named materials are properly classified, described, packaged, marked, placarded, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation. As a signatory I certify that I have been trained and tested to the requirements of 49 CFR, Part 172-700.

Authorized Signature: _____ /s/ Signature on file

Date: 9-22-01 Time: 1135

Received by: _____ /s/ Signature on file

Date: 9/28/01 Time: 1300

9/26/2001

0-21

1 of 1

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-LLFY01022 package numbers 01L029, 01L030 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

9-27-07

Theresa Duke Collier

Received by

Organization

Title

BN/WOD

Engineer

/s/ Signature on file

Signature

Date

9/27/07

NTS On-Site HazMat Transfer - Published

Tracking No: DPL01020

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: ~~JARED LANGE~~ *Donald Ochter*

CDL:

UNKNOWN

NV

Depart: 27-SEP-2001 08:00

Arrival: 27-SEP-2001 10:00

From: STEFAN DUKE
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Area: 05

Bldg: R-MAD

Bldg: 5-7

Phone: 702-295-7365

Phone: 702-295-6808

Alt. Phone: 702-295-6811

Pager: 702-794-8713

Pager:

Mobile:

Mobile:

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I)	2 DRUM(S)	1,380.00 POUND(S) (GROSS)	2912	162

WASTE

RADIOISOTOPES: U-234, U-235, PU-239, CS-137,

SR-90, NB-94, EU-154

PHYSICAL FORM: SOLID

CHEMICAL FORM: OXIDE

PACKAGE ACTIVITY: 7.453E+7BQ

CATEGORY: *White I*

NTS On-Site HazMat Transfer - Published

Tracking No: DPL01020

Phil Worley
Home: 258-4752
Work: 295-2704
Al Ogurek
Home: 838-6674
Work: 295-5836

24-Hr Emergency Response Phone Number
702/295-6400

Entered by: DUKESJ

Date Modified: 25-SEP-2001

EMERGENCY RESPONSE

By Phone
702-295-6400

By Radio
'MAYDAY - MAYDAY- MAYDAY'

In the event of an incident involving Hazardous Material:

1. Gather HazMat shipping papers and NAER Guidebook
2. Isolate the immediate area
3. Assess the situation:
 - a. Fire, Spill, or Leak?
 - b. People, Property, or the Environment at risk?
4. Contact On-site Emergency Response Personnel
5. Reference On-Site HazMat Transfer Tracking Number

This is to certify that the above-named materials are properly classified, described, packaged, marked, placarded, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation. As a signatory I certify that I have been trained and tested to the requirements of 49 CFR, Part 172-700.

Authorized Signature: /s/ Signature on file

Date: 9-27-01 Time: 0920

Received by: /s/ Signature on file

Date: 9/27/01 Time: 1120

/s/ Signature on file

9/26/2001

0-29

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Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-LLFY01022 package number 01L047, was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 3 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

10-9-01

Date

Received by

Organization

Title

Thomas Lake Collins

BN/WOD

Engineer

/s/ Signature on file

Signature

10/9/01

Date

NTS On-Site HazMat Transfer - Published

Tracking No: DPL02001

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: JARED LANGE

CDL:

UNKNOWN

NV

Depart: 09-OCT-2001 13:00

Arrival: 09-OCT-2001 15:00

From: STEFAN DUKE
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-7385

Pager: 702-794-8713

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 03

Bldg: 3C36 (AHAT)

Phone: 702-295-6808

Alt Phone: 702-295-6811

Pager:

Mobile:

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
NON-REGULATED WASTE WASTE	1 BURRITO WRAP(S)	81,570.00 POUND(S) (GROSS)	—	—

24-Hr Emergency Response Phone Number

702/295-6400

Entered by: DUKESJ

Date Modified: 08-OCT-2001

EMERGENCY RESPONSE

By Phone
702-295-6400

By Radio
'MAYDAY - MAYDAY- MAYDAY'

In the event of an incident involving Hazardous Material:

1. Gather HazMat shipping papers and NAER Guidebook
2. Isolate the immediate area
3. Assess the situation:
 - a. Fire, Spill, or Leak?
 - b. People, Property, or the Environment at risk?
4. Contact On-site Emergency Response Personnel
5. Reference On-Site HazMat Transfer Tracking Number

This is to certify that the above-named materials are properly classified, described, packaged, marked, placarded, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation. As a signatory I certify that I have been trained and tested to the requirements of 49 CFR, Part 172-700.

Authorized Signature: /s/ Signature on file

Date: 10-9-01 Time: 1410

Received by: /s/ Signature on file

Date: 10/9/01 Time: 1500

10/8/2001

0-26

1 of 1

Information on this page is protected by the Privacy Act of 1974 and is for official use only.

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-LLFY01022 package numbers 982773, 982814, 982825 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

10-31-01

Received by

Organization

Title

Merl Schwartzwalter

BN / Rums

tech staff
DD

/s/ Signature on file

Signature

Date

10-31-01

D-27

NTS On-Site HazMat Transfer - Published

Tracking No: DPL02002

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: CURTIS STEVENS

CDL: 365736815749

NV

Depart: 31-OCT-2001 09:00

Arrival: 31-OCT-2001 11:00

From: STEFAN DUKE
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023
Area: 25
Bldg: R-MAD
Phone: 702-295-7365

Pager: 702-794-8713
Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023
Area: 05
Bldg: 5-7
Phone: 702-295-6808
Alt. Phone: 702-295-6811
Pager:
Mobile:

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
NON-REGULATED WASTE WASTE	3 BOX(ES)	24,000.00 POUND(S) (GROSS)	—	—

24-Hr Emergency Response Phone Number
702/295-6400

Entered by: DUKESJ

Date Modified: 30-OCT-2001

EMERGENCY RESPONSE

By Phone
702-295-6400

By Radio
'MAYDAY - MAYDAY - MAYDAY'

In the event of an incident involving Hazardous Material:

1. Gather HazMat shipping papers and NAER Guidebook
2. Isolate the immediate area
3. Assess the situation:
 - a. Fire, Spill, or Leak?
 - b. People, Property, or the Environment at risk?
4. Contact On-site Emergency Response Personnel
5. Reference On-Site HazMat Transfer Tracking Number

This is to certify that the above-named materials are properly classified, described, packaged, marked, placarded, and labeled and are in proper condition for transportation according to the applicable regulations of the U.S. Department of Transportation. As a signatory I certify that I have been trained and tested to the requirements of 49 CFR, Part 172-700.

Authorized Signature: /s/ Signature on file Date: 10-31-01 Time: 0930

Received by: /s/ Signature on file Date: 10-31-01 Time: 10:30

10/31/2001

1 of 1

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HAZARDOUS WASTE TRANSPORT MANIFESTS

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Manifest
Document
No.:

Bechtel Nevada

Page 1 of 1

0 1 N 3 8

Generation Date: 6/4/01

ONSITE WASTE TRANSPORT MANIFEST

1. Generator's Name, Organization, and Location: (Please Print)

BN Env. Rem./Pat Morris, #NTS9001
C7F14D11, org. 2156
Area 25 R-MAD, Bldg. 3126

Generator's Phone: () 5-5397

2. Receiving Facility, Organization, Location: (Please Print)

BN HWSU, Area 5
5-20

Facility Phone: () 5-7669

3a. Transporter Name:
(Please Print)

Keith Kaczay

Transport Date:

8-21-01

3b. Vehicle I.D. Number:

84162

4. U.S. D.O.T. Description. Include: EPA Waste Code and Package Identification Numbers.

5. Containers

6. Total
Quantity

7. Unit
Wt./Vol.

	HM		No.	Type		
a	X	Hazardous waste, liquid, n.o.s. (arsenic), 9, NA3082, PG-III D004 BN-NTS-01-0220 C	1	DF DM 22 9/5/01	5	G ✓ 62#
b	X	Hazardous waste, liquid, n.o.s. (lead), 9, NA3082, PG-III D008 BN-NTS-01-0221 C	1	DF	15 1 C 45 2/22/01	G 13#
c	X	Hazardous waste, solid, n.o.s. (lead), 9, NA3082, PG-III D008 BN-NTS-01-0222 C NA3077 C 45 2/22/01	1	DF	8	G 240#
d						
e						
f						
g						

Use continuation pages for additional items, as necessary.

8. Special Handling Instructions and Additional Information:

24 Hour emergency contact: 702 - 295-6400

ERG #171

9. Released by: (Signature)

/s/ Signature on file

Pat Morris

Date:

8/21/01

10. Received for Transport by: (Signature)

/s/ Signature on file

182906

Date:

8-21-01

11. Discrepancy Indication:

12. Transporter's Signature:
(Acknowledges Receipt of Waste)

/s/ Signature on file

Distribution: Original - HWO
Copy - Generator

BN-0206 (05/01)

D-3/

Information on this page is protected by the Privacy Act of 1974 and is for official use only.

Manifest
Document
No.:

Bechtel Nevada

Page 1 of 1

0 1 N 3 1

Generation Date: 6/4/01

ONSITE WASTE TRANSPORT MANIFEST

1. Generator's Name, Organization, and Location: (Please Print)

BN Env. Rem., Curtis Obi, HWAA #NTS9001
C7F14D11, org. #2152
Area 25 R-MAD Bldg. 3126

Generator's Phone: (702) 295-5577

2. Receiving Facility, Organization, Location: (Please Print)

BN Hazardous Waste Storage Unit
Haz Waste Ops, org. #2151
Area 5 Bldg. 5-20

Facility Phone: (702) 295-7669

3a. Transporter Name:
(Please Print)

BN Haz Waste Ops

Transport Date:

6/26/01

3b. Vehicle I.D. Number:

66302136

4. U.S. D.O.T. Description. Include: EPA Waste Code and Package Identification Numbers.

HM

X

POLYCHLORINATED BIPHENYLS, LIQUID, 9, UN2315, PG-II

#BN-NTS-01-0156

5. Containers

No.

Type

6. Total
Quantity

7. Unit
Wt./Vol.

1

DF

1

G

— last item —

Radiation Survey Release for Waste Disposal
RCT Initials

- ☒ This container/load is free of external radioactive contamination.
☐ This container/load is exempt from survey due to process knowledge and origin.
☐ This container/load is free of radioactive contamination based on radianalysis.

SIGNATURE: /s/ Signature on file DATE: 6-26-01

BN-0268 (05/99)

Use continuation pages for additional items, as necessary.

8. Special Handling Instructions and Additional Information:

24 Hour emergency contact: 702 - 295-8400

ERG #171

Out of service date - 6/4/2001

9. Released by: (Signature)

/s/ Signature on file

Date:

6/26/2001

10. Received for Transport by: (Signature)

/s/ Signature on file

Date:

6-26-01

11. Discrepancy Indication:

12. Disposal/Accumulation Site Signature:
(Acknowledges acceptance of waste)

/s/ Signature on file

Date:

6/26/01

Distribution: Original - HWO
Copy - Generator

BN-0268 (05/01)

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ORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. NV3890090001	Manifest Document No. 02003	22. Page 2 of 7	Information in the shaded areas is not required by Federal law.	
23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-6400				L. State Manifest Document Number		
				M. State Generator's ID		
24. Transporter Company Name TRIAD Transport, Inc.		25. US EPA ID Number OKD981588791		N. State Transporter's ID		
25. Transporter Company Name		27. US EPA ID Number		O. Transporter's Phone 800-324-1438		
				P. State Transporter's ID		
				Q. Transporter's Phone		
29. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				29. Containers	30. Total Quantity	31. Unit Wt/Vol
				No.	Type	R. Waste No.
a.	X	Waste Consumer commodity, ORM-D	1	DM	160	P D001, D005, D008, D018, D035, D040
b.	X	Waste Flammable liquids, n.o.s. (methanol, isopropyl alcohol), 3, UN1993, II	1	DM	52	P D001, F003
c.	X	Waste Flammable liquids, n.o.s. (ethyl acetate), 3, UN1993, II	1	DM	132	P D001, F003
d.	X	Waste Flammable liquids, n.o.s. (isopropyl alcohol), 3, UN1993, II	2	DM	130	P D001
e.	X	RQ Waste Petroleum products, n.o.s. (benzene), 3, UN1268, II (D001)	2	DM	740	P D001, D018
f.	X	RQ Waste Petroleum products, n.o.s. (benzene, toluene), 3, UN1268, III (D001)	1	DM	408	P D001, D018
g.	X	Waste Combustible liquid, n.o.s. (ethyl benzene, toluene), NA1993, III	1	DM	127	P D018
h.	X	RQ Waste Fuel, aviation, turbine engine, 3, UN1863, III (D001)	1	DM	419	P D001, D018
i.	X	Waste Fuel, aviation, turbine engine, 3, UN1863, III	1	DM	270	P D001, D018
S. Additional Descriptions for Materials Listed Above A: ERG171; 02-0003; NVBNS-3015124; add'l codes U019, U075, U121, U154, U220, U228, U239 B: ERG128; 01-0115; NVBNS-3015128 C: ERG128; 01-0119; NVBNS-3015126 D: ERG128; 01-0219, 01-0228; NVBNS-3015126 E: ERG128; 01-0128, 01-0129; NVBNS-3015127				T. Handling Codes for Wastes Listed Above		
32. Special Handling Instructions and Additional Information F: ERG128; 01-0110; NVBNS-3015127 G: ERG128; 01-0130; NVBNS-3015127 H: ERG128; 01-0147; NVBNS-3015127 I: ERG128; 01-0131; NVBNS-3015198 24-hour emergency contact # (702) 295-6400 Certificate of destruction is required						
33. Transporter Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month Day Year		
34. Transporter Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month Day Year		
35. Discrepancy Indication Space						

UNIFORM-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NV3890090001		Manifest Document No. 02003		2. Page 1 of 7		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193						A. State Manifest Document Number							
4. Generator's Phone () 702 295-6400						B. State Generator's ID							
5. Transporter 1 Company Name TRIAD Transport, Inc				6. US EPA ID Number OKD981588751		C. State Transporter's ID							
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone 800-324-4439							
9. Designated Facility Name and Site Address Safety-Kleen Phoenix Service Center 1340 West Lincoln St. Phoenix, AZ 85007						10. US EPA ID Number AZD049318009		E. State Transporter's ID					
								F. Transporter's Phone					
								G. State Facility's ID 602-258-8155					
								H. Facility's Phone					
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.	
						No. Type							
a. X RQ Waste Adhesives, 3, UN1133, III (D001)						1 DM		179		P		D001	
b. X RQ Waste Flammable liquids, n.o.s. (mineral spirits), 3, UN1993, III (D001)						1 DM		425		P		D001	
c. X RQ Waste Flammable liquids, n.o.s. (mineral spirits), 3, UN1993, II (D001)						1 DM		185		P		D001	
d. X Waste Consumer commodity, ORM-D						1 DM		20		P		D001, D005, D008, D035, U154	
J. Additional Descriptions for Materials Listed Above A: ERG128; 01-0122; NVBNS-3015122 B: ERG128; 01-0212; NVBNS-3015123 C: ERG128; 01-0239; NVBNS-3015123 D: ERG171; 01-0095; NVBNS-3015124						K. Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information 24-hour emergency contact # (702) 295-6400 Collect Use Proper PPE when handling containers Certificate of Destruction is required													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name						Signature				Month Day Year			
17. Transporter 1 Acknowledgement of Receipt of Materials													
Printed/Typed Name						Signature				Month Day Year			
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed/Typed Name						Signature				Month Day Year			
19. Discrepancy Indication Space													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Printed/Typed Name						Signature				Month Day Year			

OUTGOING HAZARDOUS WASTE SHIPMENT NOTIFICATION

To: Pat Morris, BN ER, 5-5397

From: C. Carlos Gonzales, BN Hazardous Waste Operations, 5-6757

Date: 1/7/02

Enclosed, for your records, is a copy of the Uniform Hazardous Waste Manifest, document #02003, which includes hazardous waste generated by your Group from the NTS A-25 R-MAD 90-Day Pad #NTS9001. The following hazardous waste was shipped from the Nevada Test Site on 12/3/01:

+ Package #BN-NTS-01-0220 and 01-0221, shipped via Onsite Waste Transport Manifest #01N38 on 8/21/01; and

+ Package #BN-NTS-01-0222, shipped via Onsite Waste Transport Manifest #01N38, was repackaged and appears as #BN-NTS-01-0254.

Please contact me if you have any questions.

2002 JAN 8 PM 12 57

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WASTE MANIFEST (Continuation Sheet)

NV3890090001

02003

3 of 7

Information in the shaded areas is not required by Federal law.

23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-5400		L. State Manifest Document Number	
24. Transporter Company Name TRIAD Transport, Inc.		M. State Generator's ID	
25. US EPA ID Number OKD981588791		N. State Transporter's ID	
26. Transporter Company Name		O. Transporter's Phone 800-324-1139	
27. US EPA ID Number		P. State Transporter's ID	
		Q. Transporter's Phone	

29. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.	X Waste isopropyl alcohol solution, 3, UN1219, II	1	DF	80	P	D001
b.	X Hazardous waste, liquid, n.o.s. (silver), 9, NA3082, III	12	DF	499	P	D011
c.	X Waste Flammable liquid, n.o.s. (acetone, methyl ethyl ketone), 3, UN1993, II	1	DM	409	P	D001, D007, D008, D019, D035
d.	X Waste Combustible liquid, n.o.s., (aliphatic hydrocarbon, terpenes), NA1993, III	1	DF	106	P	D006, D021, D022, D027
e.	X Waste Combustible liquid, n.o.s., (aliphatic hydrocarbon), NA1993, III	2	DM	439	P	D006, D007, D008
f.	X Waste Carbon, activated, 4.2, UN1362, III	1	DF	18	P	D001
g.	X Hazardous waste, liquid, n.o.s. (cadmium), 9, NA3082, III	1	DF	81	P	D006
h.	X Hazardous waste, liquid, n.o.s. (chromium), 9, NA3082, III	4	DM	1903	P	D007
i.	X Hazardous waste, liquid, n.o.s. (cadmium), 9, NA3082, III	2	DM	528	P	D006

S. Additional Descriptions for Materials Listed Above A: ERG129; 01-0225; NVBNS-3015142 B: ERG171; 01-0124, 01-0125, 01-0240, 0241, 0242, 0243, 0244, 0245, 0246, 0247, 0248, 0249; NVBNS-3015140 C: ERG128; 01-0154; NVBNS-3015142 D: ERG128; 01-0135; NVBNS-3015143 E: ERG128; 01-0213, 01-0215; NVBNS-3015143	T. Handling Codes for Wastes Listed Above
---	---

32. Special Handling Instructions and Additional Information F: ERG133; 01-0227; NVBNS-9999L G: ERG171; 01-0143; NVBNS-3015194 H: ERG171; 01-0136, 0137, 0138, 0140; NVBNS3015194 I: ERG171; 01-0142, 01-0211; NVBNS-3015184 24-hour emergency contact # (702) 295-5400 Certificate of destruction is required

33. Transporter Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year
34. Transporter Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year

35. Discrepancy Indication Space

HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. NY3890090001	Manifest Document No. 02003	22. Page 4 of 7	Information in the shaded areas is not required by Federal law.		
23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-6400			L. State Manifest Document Number				
			M. State Generator's ID				
24. Transporter Company Name TRIAD Transport, Inc.		25. US EPA ID Number OKD981588784		N. State Transporter's ID			
25. Transporter Company Name		27. US EPA ID Number		O. Transporter's Phone 800-324-1139			
				P. State Transporter's ID			
				Q. Transporter's Phone			
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			29. Containers	30. Total Quantity	31. Unit Wt/Vol		
			No.	Type	R. Waste No.		
a.	X	Hazardous waste, liquid, n.o.s. (cadmium, lead), 9, NA3082, III	1	DM	424	P	D008, D008
b.	X	Hazardous waste, liquid, n.o.s. (cadmium, chromium, lead), 9, NA3082, III	1	DM	412	P	D006, D007, D008
c.	X	RQ Waste Alcohols, flammable, toxic, n.o.s. (ethanol, methanol), 3, 6.1, UN1988, II (D001)	3	DM	1200	P	D001
d.	X	RQ Waste Alcohols, flammable, toxic, n.o.s. (ethanol, methanol), 3, 6.1, UN1988, III (D001)	1	DM	225	P	D001
e.	X	Hazardous waste, liquid, n.o.s. (lead), 9, NA3082, III	1	DF	530	P	D008
f.	X	Hazardous waste, liquid, n.o.s. (tetrachloroethane), 9, NA3082, III	3	DM	1050	P	F002
g.	X	Hazardous waste, liquid, n.o.s. (arsenic), 9, NA3082, III	1	DM	62	P	D004
h.	X	Hazardous waste, solid, n.o.s. (methylene chloride, chromium), 9, NA3077, III	2	DF	43	P	D007, F002, F005
i.	X	Hazardous waste, solid, n.o.s. (methyl ethyl ketone, toluene), 9, NA3077, III	1	DF	46	P	D018, F003, F005
S. Additional Descriptions for Materials Listed Above A: ERG171; 01-0139; NVBNS-3015184 B: ERG171; 01-0189; NVBNS-3015184 C: ERG131; 01-0149, 01-0150, 01-0151; NVBNS-3015189 D: ERG131; 01-0152; NVBNS-3015189 E: ERG171; 01-0198; NVBNS-3015184			T. Handling Codes for Wastes Listed Above				
32. Special Handling Instructions and Additional Information F: ERG171; 01-0236, 01-0237, 01-0238; NVBNS-3015195 G: ERG171; 01-0220; NVBNS-3015183 H: ERG171, 01-0148, 01-0155; NVBNS-3015128 I: ERG171; 01-0210; NVBNS-3015128 24-hour emergency contact # (702) 295-6400 Certificate of destruction is required							
33. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name			Signature		Month Day Year		
34. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name			Signature		Month Day Year		
35. Discrepancy Indication Space							

HAZARDOUS WASTE MANIFEST (Continuation Sheet)		Generator's US EPA ID No. NV3880090001	Manifest Document No. 02003	22. Page 6 of 7	Information in the shaded areas is not required by Federal law.		
23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-6400			L. State Manifest Document Number				
24. Transporter Company Name TRIAD Transport, Inc.			M. State Generator's ID				
25. US EPA ID Number OKR021522784			N. State Transporter's ID				
26. Transporter Company Name			O. Transporter's Phone 800-324-4439				
27. US EPA ID Number			P. State Transporter's ID				
			Q. Transporter's Phone				
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			29. Containers	30. Total Quantity	31. Unit Wt/Vol		
			No.	Type	R. Waste No.		
a.	X	Hazardous waste, solid, n.o.s. (methylene chloride, xylene), 9, NA3077, III	1	DF	58	P	D007, F002, F003, F005
b.	X	Hazardous waste, solid, n.o.s. (benzene), 9, NA3077, III	4	DF	244	P	D018
c.	X	Hazardous waste, solid, n.o.s. (methyl ethyl ketone, toluene), 9, NA3077, III	2	DM	193	P	D007, D018, F002, F003, F005
d.	X	Hazardous waste, solid, n.o.s. (methyl ethyl ketone, toluene), 9, NA3077, III	1	DM	88	P	D018, F003, F005
e.	X	Hazardous waste, solid, n.o.s. (cadmium, chromium), 9, NA3077, III	4	DF	181	P	D006, D007
f.	X	Hazardous waste, solid, n.o.s. (chromium, lead), 9, NA3077, III	1	DF	34	P	D007, D008
g.	X	Hazardous waste, solid, n.o.s. (lead), 9, NA3077, III	1	DM	14	P	D008
h.	X	Waste Calcium carbide, 4.3, UN1402, II	1	DM	24	P	D003
i.	X	Hazardous waste, solid, n.o.s. (benzene), 9, NA3077, III	2	DF	44	P	D018
S. Additional Descriptions for Materials Listed Above A: ERG171; 01-0214; NVBNS-3015128 B: ERG171; 01-0112, 01-0114, 01-0208, 01-0252; NVBNS-3015128 C: ERG171; 01-0109, 01-0253; NVBNS-3015128 D: ERG171; 01-0148; NVBNS-3015128 E: ERG171; 01-0132, 01-0133, 01-0250, 01-0251; NVBNS-3015130			T. Handling Codes for Wastes Listed Above				
32. Special Handling Instructions and Additional Information F: ERG171; 01-0208; NVBNS-3015130 G: ERG171; 01-0105; NVBNS-3015138 H: ERG138; 01-0092; NVBNS-3015186 I: ERG171; 01-0197, 01-0128; NVBNS-3015190 24-hour emergency contact # (702) 295-6400 Certificate of destruction is required							
33. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name			Signature		Month Day Year		
34. Transporter Acknowledgement of Receipt of Materials					Date		
Printed/Typed Name			Signature		Month Day Year		
35. Discrepancy Indication Space							

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.
NV3890090001

Manifest Document No.
02003

22. Page
6 of 7

Information in the shaded areas is not required by Federal law.

23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-8400		L. State Manifest Document Number
24. Transporter Company Name TRIAD Transport, Inc.		M. State Generator's ID
25. US EPA ID Number OKD981488791		N. State Transporter's ID
26. Transporter Company Name		O. Transporter's Phone 702-324-4439
27. US EPA ID Number		P. State Transporter's ID
		Q. Transporter's Phone

29. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			29. Containers		30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
	No.	Type		Type			
a.	X	Hazardous waste, solid, n.o.s. (benzene), 9, NA3077, III	2	DM	140	P	D018
b.	X	Hazardous waste, solid, n.o.s. (cadmium), 9, NA3077, III	1	DF	9	P	D006
c.	X	Hazardous waste, solid, n.o.s. (chromium, lead, selenium), 9, NA3077, III	1	DM	700	P	D007, D008, D010
d.	X	Waste Oxidizing solid, corrosive, n.o.s. (chromic acid), 5.1, 8, UN3085, II	1	DF	3	P	D001, D007
e.	X	Hazardous waste, solid, n.o.s. (cadmium), 9, NA3077, III	1	DF	1	P	D006
f.	X	Hazardous waste, liquid, n.o.s. (lead), 9, NA3082, III	1	DM	2	P	D008
g.	X	Hazardous waste, solid, n.o.s. (lead), 9, NA3077, III	1	DM	300	P	D008
h.	X	Hazardous waste, solid, n.o.s. (chromium oxide), 9, NA3077, III	1	DF	11	P	D007
i.	X	Hazardous waste, solid, n.o.s. (tetrachloroethane), 9, NA3077, III	2	DM	488	P	F002

S. Additional Descriptions for Materials Listed Above A: ERG171; 01-0144; 01-0145; NVBNS-3015190 B: ERG171; 01-0141; NVBNS-3015193 C: ERG171; 01-0207; NVBNS-3015193 D: ERG140; 01-0153; NVBNS-3015187 E: ERG171; 01-0157; NVBNS-3015185	T. Handling Codes for Wastes Listed Above
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32. Special Handling Instructions and Additional Information
 F: ERG171; 01-0221; NVBNS-3015191
 G: ERG171; 01-0254; NVBNS-3015192
 H: ERG171; 01-0098; NVBNS-3015188
 I: ERG171; 01-0223, 01-0224; NVBNS-3015196
 24-hour emergency contact # (702) 295-8400 Certificate of destruction is required

33. Transporter Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year
34. Transporter Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year

35. Discrepancy Indication Space

**WASTE MANIFEST
(Continuation Sheet)**

NV3890090001

02003

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Information in the shaded areas is not required by Federal law.

23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-6400		L. State Manifest Document Number M. State Generator's ID
24. Transporter Company Name TRIAD Transport, Inc.	25. US EPA ID Number OKP091588701	N. State Transporter's ID O. Transporter's Phone 800-324-1139
26. Transporter Company Name	27. US EPA ID Number	P. State Transporter's ID Q. Transporter's Phone

29. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers		30. Total Quantity	31. Unit Wt/Vol	32. Waste No.
		No.	Type			
a.	X Waste Flammable liquids, n.o.s., 3, UN1993, I	1	DM	112	P	D001, D018, D019, D021, D022, D028
b.	X Hazardous waste, liquid, n.o.s. (nitroglycerin solution), 9, NA3082, III	1	DF	15	P	P081
c.	X Waste Toxic liquids, organic, n.o.s., 6.1, UN2810, II	1	DF	21	P	D005, D007, D008, D018, D019, D022
d.	X Waste Flammable liquids, n.o.s., 3, UN1993, II	1	DM	95	P	D001
e.	X Hazardous waste, liquid, n.o.s. 9, NA3082, III	1	DF	2	P	U069, U120, U121
f.	X Waste Flammable liquids, toxic, n.o.s., 3, 6.1, UN1992, II	1	DF	2	P	D001, D013, D018, D022, D028, D039
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above A: ERG128; 01-0232; NVBNS-9999L; addl codes: D029, D035, D036, D038, D040, U002, U019, U037, U055, U070, U073, U078, U083, U154, U159, U220, U239 B: ERG171; 01-0107; NVBNS-9999L C: ERG153; 02-0010; NVBNS-9999L; addl codes: D023, D025, D027, D036, D039, D040, U028, U044, U070, U071, U072, U080, U089, U210, U211, U225, U226, U227, U228	T. Handling Codes for Wastes Listed Above
32. Special Handling Instructions and Additional Information D: ERG128; 01-0233; NVBNS-9999L E: ERG171; 01-0230; NVBNS-9999L F: ERG131; 01-0229; NVBNS-9999L; addl codes: U042, U077 24-hour emergency contact @ (702) 295-6400 Certificate of destruction is required	

33. Transporter Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year
34. Transporter Acknowledgement of Receipt of Materials		Date
Printed/Typed Name	Signature	Month Day Year

35. Discrepancy Indication Space



P.O. Box 8913 Little Rock, Arkansas 72216-8913
Telephone 501-682-0744

Use print or type. (Form designed for use on alpha 112-pitch typewriter.)

Form Approved, OMB No. 2030-0039

UNIFORM HAZARDOUS WASTE MANIFEST		Generator's US EPA ID No. NV3890090001	Manifest ID No. 01005	Page 3	Instructions: A U.S. space state is not required by Federal law.		
3. Generator's Name and Mailing Address Bechtel Nevada for U.S. DOE P.O. Box 88521 Las Vegas, NV 89103 702 295-8400			A. State Manifest Document Number AR-1085742				
4. Generator's Phone			B. State Generator's ID				
5. Transporter 1 Company Name TRIAD Transport, Inc.			C. State Transporter's ID H-222				
6. Transporter 1 US EPA ID Number OKD081588791			D. Transporter's Phone 800-324-1139				
7. Transporter 2 Company Name			E. State Transporter's ID				
8. Transporter 2 US EPA ID Number			F. Transporter's Phone				
9. Designated Facility Name and Site Address Ensco 309 American Circle El Dorado, AR 71730			G. State Facility's ID 870-853-7173				
10. Facility's US EPA ID Number ARD069748192			H. Facility's Phone				
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a. X Hazardous waste, solid, n.o.s., (methyl ethyl ketone, toluene, xylene), 9, NA3077, III			1	DF	79.0	P	F005, F003, D035
b. X Hazardous waste, solid, n.o.s., (benzene), 9, NA3077, III			1	DF	122.0	P	D018
c. X Hazardous waste, solid, n.o.s., (chromium, methylene chloride), 9, NA3077, III			1	DF	7.0	P	D007, F002
d. X Hazardous waste, liquid, n.o.s., (silver), 9, NA3082, III			6	DF	263.0	P	D011
J. Additional Description for Materials Listed Above a: BN-NTS-01-0113, 50002960 b: BN-NTS-01-0111, 50002960 c: BN-NTS-01-0108, 50002960 d: BN-NTS-01-0100 thru 0104, 0108, 50002960 If no alternate TSD, return to generator 4005			K. Emergency Response Information:				
15. Special Handling Instructions and Additional Information 24-hour emergency contact # (702) 295-8400 Collect Use Proper PPE when handling containers Certificate of Destruction is required ER Guide No(s): 171							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.			Printed/Typed Name TREV S. BELLA Signature /s/ Signature on file Month Day Year 07.26.01				
17. Transporter 1 Acknowledgement of Receipt of Materials			Printed/Typed Name CHARLES ELLIOTT Signature /s/ Signature on file Month Day Year 07.26.01				
18. Transporter 2 Acknowledgement of Receipt of Materials			Printed/Typed Name Signature Month Day Year				
19. Discrepancy (indicate space)							
20. Facility Owner or Operator: Certification or receipt of hazardous materials covered by this manifest except all noted in item 10. Printed/Typed Name ERRIE V. CONN Signature /s/ Signature on file Month Day Year 08.05.01							

Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

Information on this page is protected by the Privacy Act of 1974 and is for official use only.

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. NV3890090001	Manifest Document No. 01005	22. Page 2 of 3	Information in the shaded areas is not required by Federal law.	
23. Generator's Name Bechtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89103 702-295-6400				L. State Manifest Document Number		
				M. State Generator's ID		
24. Transporter Company Name TRIAD Transport, Inc.		25. US EPA ID Number OKD981528794		N. State Transporter's ID		
26. Transporter Company Name		27. US EPA ID Number		O. Transporter's Phone 800-324-1139		
				P. State Transporter's ID		
				Q. Transporter's Phone		
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				29. Containers	30. Total Quantity	31. Unit Wt/Vol
				No.	Type	R. Waste No.
a.	X	RQ, Waste Mercury, 8, UN2909, III (mercury)		1	DM	20.0 P U151, D008
b.	x	Waste Adhesives, containing a flammable liquid, 3, UN1133, III		1	DF	4.0 P D035, D001
c.	x	Hazardous waste solid, n.o.s. (mercury), 8, NA3077, III		2	DM	180.0 P D009
d.	x	Lithium battery, 9, UN3090, II		1	DF	1.0 P
e.		Non-DOT regulated PCB's		1	DF	8.0 K
f.		Universal waste- Ni-Cd batteries		4	DF	316.0 P
g.		Universal waste-mercury batteries		1	DF	1.0 P
h.		Universal waste-Mercury vapor lamps		1	CF	10.0 P
i.		Universal waste-Fluorescent lamps		29	DF	2620.0 P
S. Additional Descriptions for Materials Listed Above				T. Handling Codes for Wastes Listed Above		
a: BN-NTS-01-0120, 50002928 b: BN-NTS-01-0089, 50003015 c: BN-NTS-01-0184, -0186, 50002961, universal waste in initiating state, hazardous waste in receiving state d: BN-NTS-01-0181, 50002964				e: BN-NTS-01-0156, 50003011, out of service data 6/4/01, PCB ballasts f: BN-NTS-01-0178 thru -0180, -0183, 50003055 g: BN-NTS-01-0182, 50003141 h: BN-NTS-01-0181, 50002963		
32. Special Handling Instructions and Additional Information t: BN-NTS-01-0158 thru -0177, -0185 thru -0187, -0189, -0190, -0192, -0200, -0201, -0206 24-hour emergency contact # (702) 295-8400 Certificate of destruction is required ER Guide No(s): 172, 128, 171, 138						
33. Transporter Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name Charles E. HOTT		Signature /s/		Month Day Year 07/26/01		
34. Transporter Acknowledgement of Receipt of Materials				Date		
Printed/Typed Name		Signature		Month Day Year		
35. Discrepancy Indication Space						

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator's US EPA ID No. NV3890090001	Manifest Document No. 01005	22. Page 3 of 3	Information in the shaded areas is not required by Federal law.
23. Generator's Name Barchtel Nevada for U.S. DOE P.O. Box 98521 Las Vegas, NV 89193 702-295-8400				L. State Manifest Document Number	
				M. State Generator's ID	
24. Transporter Company Name TRIAD Transport, Inc.		25. US EPA ID Number OKD981588791		N. State Transporter's ID	
				O. Transporter's Phone 800-324-1139	
26. Transporter Company Name		27. US EPA ID Number		P. State Transporter's ID	
				Q. Transporter's Phone	
28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			29. Containers	30. Total Quantity	31. Unit
			No.	Type	Wt/Vol
a.	Universal waste- Fluorescent lamps		8	CF	80.0
b.					
c.					
d.					
e.					
f.					
g.					
h.					
i.					
S. Additional Descriptions for Materials Listed Above			T. Handling Codes for Wastes Listed Above		
a: BN-NTS-01-0186, -0193 thru -0195, -0202 thru -0205, 60002962					
32. Special Handling Instructions and Additional Information 24-hour emergency contact # (702) 295-8400 Certificate of destruction is required					
33. Transporter Acknowledgement of Receipt of Materials					
Printed/Typed Name				Signature	
				Date	
				Month Day Year	
34. Transporter Acknowledgement of Receipt of Materials					
Printed/Typed Name				Signature	
				Date	
				Month Day Year	
35. Discrepancy Indication Space					

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**AREA 9 - U10C INDUSTRIAL LANDFILL
LOAD VERIFICATION FORMS**

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA 23 6 (B) LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 6-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for railcars, dump trucks, and other onsite disposal of materials.)

Waste Generator: IT Corporation / Boyd Inc.Phone Number: 6-2457Location / Origin: Area 3 BILBY originally from R-Mad West CAU 254

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☐ NTS☐ Flammable☐ Non-Flammable☐ Asbestos Containing Material☒ FFACO-on-site☐ WAC Exception☐ FFACO-off-site☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☒ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Content

Prohibited Waste

at all three NTS landfills:

Radioactive Waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 3 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 3 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulic; kerosene; asphaltic petroleum hydrocarbons; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☐ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-asbestos form)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load) Quantity:

Additional waste accepted at the Area 3 U10c Landfill:

☐ Nonfriable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Decommed Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 3 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terc plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: BM (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials that are allowed for disposal at this site. I have verified this through the waste characterization method identified above and a review of the above-mentioned prohibited and allowable waste forms.

Print Name:

Boyd M. Hunt

Signature: /s/ Signature on file

Date: 6/24/01

Note: Food waste, office trash and/or animal carcasses are considered not to contain require a radiological clearance.

SWO USE ONLY.Lead Weight (net from scale or estimate): 125

Signature of Cert:

/s/ Signature on file

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This containerload is free of external radioactive contamination.☐ This containerload is exempt from survey due to process knowledge and origin.☐ This containerload is free of radioactive contamination based on radioanalysis.

Signature: /s/ Signature on file

Date: 6/24/01

EN-0000 (03/00)

SWO USE (Circle One Area) AREA ~~6~~ 9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as:

gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the prohibited and allowable waste items.

Print Name: FRANK ECK

Signature: _____ /s/ Signature on file

Date: 5-23-01

Note: Food waste, office trash and/or animal carcasses are considered not to require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate) 38,000

Signature of Certifier: _____ /s/ Signature on file

SWO USE (Circle One Area) AREA

X

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rocks / unaltered geologic materials☒ Empty containers☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Rubber (excluding tires)☒ Demolition debris☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-ferrous plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials. I have verified this through the waste characterization method identified above prohibited and allowable waste items.

Print Name: CRAIG WILSON

Signature: /s/ Signature on file

Date: 5-23-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain and require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radiological analysis.

SIGNATURE: /s/ Signature on file

DATE: 5-23-01

BY: [Signature]

SWO USE ONLY

Load Weight (net from scale or estimate): 3,002

Signature of Certifier:

/s/ Signature on file

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

X

6

X

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0584

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 8 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt☒ Metal☐ Wood☐ Paper☐ Soil☐ Rocks / unaltered geologic materials☒ Empty containers☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Rubber (excluding tires)☒ Demolition debris☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)☐ Insulation (non-Asbestosform)☐ Cement & concrete

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)☐ Office waste☐ Food Waste☐ Animal Carcasses

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 8 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-teme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: DM (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the waste described above. I have verified this through the waste characterization method identifying prohibited and allowable waste items.

Print Name:

Mike Van Dillen per C. Lyons

Signature: /s/ Signature on file

Date: 3-27-01

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radiological analysis.

Signature:

/s/ Signature on file

Date: 3-27-01

SWO USE ONLY

SWO USE ONLY

Load Weight (net from scale or estimate): 3000

Signature of Certifier:

/s/ Signature on file

SWO USE (Circle One Area) AREA

X 20

6

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7298.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as:

gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load) Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Decommed Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-ferrous plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: GR (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only 1 site. I have verified this through the waste characterization method ident prohibited and allowable waste items.

Print Name:

G. MICHAEL LeRoy, Jr. CRAIG

Signature: /s/ Signature on file

Date: 5-24-01

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radiological analysis.

SIGNATURE: /s/ Signature on file

DATE: 5-24-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain radioactive materials, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 14360

Signature of Certifier:

/s/ Signature on file

SN-0318 (05/00)

SWO USE (Circle One Area) AREA

6

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7696.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0584

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured Items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load) Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-teme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: GCW (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the waste items listed above. I have verified this through the waste characterization method identifying prohibited and allowable waste items.

Print Name:

Mr. Curtis O'Brien

Signature:

/s/ Signature on fileDate: 5/29/01

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☒ This container/load is free of radioactive contamination based on radiological analysis.SIGNATURE: /s/ Signature on fileDATE: 5-29-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 10,000

Signature of Certifier:

/s/ Signature on file

SWO USE (Circle One Area) AREA**6****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7822.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis GustafsonPhone Number: 5-0684Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☒ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☒ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-teme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**Initials: QW (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only 1 site. I have verified this through the waste characterization method ident prohibited and allowable waste items.

Print Name: Lurtis OkiSignature: /s/ Signature on fileDate: 5/20/07**Radiation Survey Release for Waste Disposal****RCT Initials**☒ This containerized is free of external radioactive contamination.☐ This containerized is exempt from survey due to process knowledge and origin.☒ This containerized is free of radioactive contamination based on radioanalysis.Signature: /s/ Signature on file DATE: 5-30-07

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 16322Signature of Certifier: /s/ Signature on file

EN-0818 (CSW0)

SWO USE (Circle One Area) AREA 6

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0534

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Wastes

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Wastes at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 5 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-teme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: DM (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the materials listed above. I have verified this through the waste characterization method I used to identify prohibited and allowable waste items.

Print Name: Mike Van Dillen Joe Craig Lyons

Signature: _____ /s/ Signature on file

Date: 5-19-01

Radiation Survey Release for Waste Disposal

RGT Initials

☒ This containerized waste is free of external radioactive contamination.☐ This containerized waste is exempt from survey due to process knowledge and origin.☐ This containerized waste is free of radioactive contamination based on radioanalysis.Signature: _____ /s/ Signature on file DATE: 5-19-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 14,600

Signature of Certifier: _____

/s/ Signature on file

SWO USE (Circle One Area) AREA**3****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7298.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis GustafsonPhone Number: 5-0684Location / Origin: CAU 254: R-MAD Decon Facility 425

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-ferme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those items. I have verified this through the waste characterization method identified prohibited and allowable waste items.

Print Name: Craig LyonsSignature: /s/ Signature on fileDate: 8-22-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain require a radiological clearance.

Radiation Survey Release for Waste Disposal**RCT Initials**☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radiological analysis.Signature: /s/ Signature on fileDate: 8-22-01

5-0684 (08/00)

SWO USE ONLYLoad Weight (net from scale or estimate): 35,000Signature of Certifier: /s/ Signature on file

5-0684 (08/00)

SWO USE (Circle One Area) AREA**X3****6****(9)****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7895.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for roll-offs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis GustafsonPhone Number: 5-0684Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☒ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosiform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos: ☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-ferrous plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only site. I have verified this through the waste characterization method (den prohibited and allowable waste items.

Print Name: Craig LyonsSignature: /s/ Signature on fileDate: 8-22-01**Radiation Survey Release for Waste Disposal**

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radiological analysis.SIGNATURE: /s/ Signature on file DATE: 8-22-01

BY: _____

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 99,000Signature of Certifier: /s/ Signature on file

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

X

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☐ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

(check one)

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis

☒ Process Knowledge

☐ Contents

Prohibited Wastes

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☒ Empty containers

☐ Asphalt

☒ Metal

☐ Wood

☐ Soil

☐ Rubber (excluding tires)

☒ Demolition debris

☐ Plastic

☒ Wire

☒ Cable

☐ Cloth

☐ Insulation (non-asbestosform)

☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-ferrous plated oil filters

☐ Plants

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only 1 site. I have verified this through the waste characterization method Ident prohibited and allowable waste items.

Print Name: Craig Lyons

Signature: /s/ Signature on file

Date: 8-22-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 31,000

Signature of Certifier: /s/ Signature on file

Radiation Survey Release for Waste Disposal	
RCY Initials	
☒	This container/load is free of external radioactive contamination.
☐	This container/load is exempt from survey due to process knowledge and control.
☐	This container/load is exempt from survey due to process knowledge and control.
SIGNATURE: <u>/s/ Signature on file</u> DATE: <u>8/22/01</u>	

SWO USE (Circle One Area) AREA

X3

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-ferrous plated off filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only if site. I have verified this through the waste characterization method identify prohibited and allowable waste items.

Print Name:

Craig Lyons

Signature:

/s/ Signature on file

Date: 8-22-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 28,960

Signature of Certifier: /s/ Signature on file

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on direct analysis.

SIGNATURE: /s/ Signature on file

DATE: 8/22/01

here. Onsite use only.

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

X

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste: Sewage Sludge, Animal carcasses, Wet garbage (food waste); and Friable asbestos at the Area 9 U10c Landfill:

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rocks / unaltered geologic materials☒ Empty containers☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Rubber (excluding tires)☒ Demolition debris☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)☐ Insulation (non-Asbestosform)☐ Cement & concrete

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)☐ Office waste☐ Food Waste☐ Animal Carcasses

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel fillers (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-ferrous plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR

Initials: _____ (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the site. I have verified this through the waste characterization method identifying prohibited and allowable waste items.

Print Name:

Craig Lyons

Signature: /s/ Signature on file

Date: 8/22/01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

Radiation Survey Release for Waste Disposal

RGT Initials

- ☒ This containerized is free of external radioactive contamination.
- ☐ This containerized is exempt from survey due to process knowledge and origin.
- ☐ This containerized is free of radioactive contamination based on radiological survey.

SIGNATURE: /s/ Signature on file

BAC-00 (08/00)

here. Onsite use only.

SWO USE ONLY

Load Weight (net from scale or estimate):

27,850

Signature of Certifier:

/s/ Signature on file

EN-0918 (08/00)

SWO USE (Circle One Area) AREA**X3****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis GustafsonPhone Number: 5-0584Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge, Animal carcasses, Wet garbage (food waste), and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terne plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identified prohibited and allowable waste items.

Print Name: Craig LyonsSignature: /s/ Signature on file

Date: _____

Radiation Survey Release for Waste Disposal	
RGT Initials	
☒	This container/load is free of external radioactive contamination.
☐	This container/load is exempt from survey due to process knowledge and origin.
☐	This container/load is free of radioactive contamination based on radiological analysis.
SIGNATURE: <u>/s/ Signature on file</u> DATE: <u>9-22-01</u>	
B-1001-0000	

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 28,920 Signature of Certifier: /s/ Signature on file

SWO USE (Circle One Area) AREA

X3

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulic; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured Items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load) Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only to site. I have verified this through the waste characterization method ident prohibited and allowable waste items.

Print Name:

Craig Lyons

Signature:

/s/ Signature on file

Date: 8-27-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 18,000

Signature of Certifier:

/s/ Signature on file

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☒ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radioanalysis.

SIGNATURE: /s/ Signature on file DATE: 8/27/01

here. Onsite use only.

SWO USE (Circle One Area) AREA

X

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofts, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0664

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

at all three NTS landfills:

Additional Prohibited Waste

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

at the Area 9 U10c Landfill:

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured Items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terra plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR

Initials: (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the prohibited and allowable waste items.

Print Name:

Craig Lyons

Signature:

/s/ Signature on file

Date: 9/23/01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 16,000

Signature of Certifier: /s/ Signature on file

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radiometric survey.

SIGNATURE: /s/ Signature on file

DATE: 9/23/01

RADIOLOGICAL RELEASE CHECKED
here. Onsite use only.

SWO USE (Circle One Area) AREA

3

6

(9)

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☐ NTS

☐ Futrescible

☒ FFACO-on-site

☐ WAC Exception

(check one)

☐ Non-Futrescible

☐ Asbestos Containing Material

☐ FFACO-off-site

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis

☒ Process Knowledge

☐ Contents

Prohibited Wastes

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste: Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos at the Area 9 U10c Landfill:

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☒ Empty containers

☐ Asphalt

☒ Metal

☐ Wood

☐ Soil

☐ Rubber (excluding tires)

☒ Demolition debris

☐ Plastic

☒ Wire

☒ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Decontaminated Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-terne plated oil filters

☐ Plants

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR

Initials: _____ (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the waste. I have verified this through the waste characterization method identifying prohibited and allowable waste items.

Print Name: Craig Lyons

Signature: /s/ Signature on file

Date: 8/23/01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 24,260 Signature of Certifier: /s/ Signature on file

Radiation Survey Release for Waste Disposal

RCT Initials

- ☒ This container is free of external radioactive contamination.
- ☒ This container is exempt from survey due to process knowledge and origin.
- ☐ This container is free of radioactive contamination based on radiological analysis.

SIGNATURE: /s/ Signature on file DATE: 8/23/01

"Radiological Release Sticker" here. Onsite use only.

SWO USE (Circle One Area) AREA**3****6****9****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis GustafsonPhone Number: 5-0684Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☒ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☒ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☒ Wire☒ Cable☐ Cloth☐ Insulation (non-Asbestosform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-terme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR S**

Initials: _____ (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste M knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those site. I have verified this through the waste characterization method identify prohibited and allowable waste items.

Print Name: Craig Lyons

Signature: _____ /s/ Signature on file

Date: 8-23-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLYLoad Weight (net from scale or estimate): 25,731

Signature of Certifier: _____

/s/ Signature on file

Radiation Survey Release for Waste Disposal**RCT Initials**☒ This containerload is free of external radioactive contamination.☐ This containerload is exempt from survey due to process knowledge and origin.☐ This containerload is free of radioactive contamination based on radiological analysis.

SIGNATURE: _____ /s/ Signature on file

DATE: 8-23-01

SP-0018 (03/00)

"Radiological Release sticker here. Onsite use only."

SWO USE (Circle One Area) AREA

3

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254; R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☐ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

(check one)

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis

☒ Process Knowledge

☐ Contents

Prohibited Wastes

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☒ Empty containers

☐ Asphalt

☒ Metal

☐ Wood

☐ Soil

☐ Rubber (excluding tires)

☒ Demolition debris

☐ Plastic

☒ Wire

☒ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☐ Cement & concrete

☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-teme plated oil filters

☐ Plants

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only the site. I have verified this through the waste characterization method identify prohibited and allowable waste items.

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.

☐ This container/load is exempt from survey due to process knowledge and origin.

☐ This container/load is free of radioactive contamination based on radiological analysis.

SIGNATURE: /s/ Signature on file DATE: 8-23-01

Print Name:

Craig Lyons

Signature:

/s/ Signature on file

Date: 8-23-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 16,500

Signature of Certifier: _____

/s/ Signature on file

24-0618 (03/00)

D-64

Bechtel Nevada

NTS Landfill Load Verification

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA

X

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0664

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)

☐ Commercial

☒ Industrial

Waste Type:

☐ NTS

☐ Putrescible

☒ FFACO-onsite

☐ WAC Exception

(check one)

☐ Non-Putrescible

☐ Asbestos Containing Material

☐ FFACO-offsite

☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management

☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up

☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis

☒ Process Knowledge

☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper

☐ Rocks / unaltered geologic materials

☒ Empty containers

☐ Asphalt

☒ Metal

☐ Wood

☐ Soil

☐ Rubber (excluding tires)

☒ Demolition debris

☐ Plastic

☒ Wire

☒ Cable

☐ Cloth

☐ Insulation (non-Asbestosform)

☐ Cement & concrete

☐ Manufactured Items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste

☐ Food Waste

☐ Animal Carcasses

☐ Asbestos:

☐ Friable

☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos

☐ Drained automobiles and military vehicles

☐ Solid fractions from sand/oil/water separators

☐ Light ballasts (contact SWO)

☐ Drained fuel filters (gas & diesel)

☐ Deconned Underground and Above Ground

☐ Hydrocarbons (contact SWO)

☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge

☐ Rags

☐ Drained fuel filters (gas & diesel)

☐ Crushed non-ferrous plated oil filters

☐ Plants

☐ Sludge from sand/oil/water separators

☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only th site. I have verified this through the waste characterization method identifi prohibited and allowable waste items.

Print Name:

Craig Lyons

Signature:

/s/ Signature on file

Date: 8-27-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container is free of external radioactive contamination.

☒ This container is exempt from survey due to process knowledge and/or origin.

☐ This container is exempt from survey due to radioactive contamination based on radiological analysis.

SIGNATURE: /s/ Signature on file

DATE: 8/27/01
SIGNATURE

here. Onsite use only.

SWO USE ONLY

Load Weight (net from scale or estimate): 24,317

Signature of Certifier:

/s/ Signature on file

0-65

BN-0016 (09/00)

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SWO USE (Circle One Area) AREA **X3** **6** **(9)** **LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Environmental Restoration - Dennis Gustafson

Phone Number: 5-0684

Location / Origin: CAU 254: R-MAD Decon Facility

Waste Category: (check one)	☐ Commercial	☒ Industrial		
Waste Type: (check one)	☐ NTS	☐ Putrescible	☒ FFACO-onsite	☐ WAC Exception
	☐ Non-Putrescible	☐ Asbestos Containing Material	☐ FFACO-offsite	☐ Historic DOE/AV
Pollution Prevention Category: (check one)	☒ Environmental management	☐ Defense Projects		
Pollution Prevention Category: (check one)	☒ Clean-Up	☐ Routine		
Method of Characterization: (check one)	☐ Sampling & Analysis	☒ Process Knowledge	☐ Contents	

Prohibited Waste at all three NTS landfills: Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:	☐ Paper	☐ Rocks / unaltered geologic materials	☒ Empty containers		
☐ Asphalt	☒ Metal	☐ Wood	☐ Soil	☐ Rubber (excluding tires)	☒ Demolition debris
☐ Plastic	☒ Wire	☒ Cable	☐ Cloth	☐ Insulation (non-Asbestosform)	☐ Cement & concrete
☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)					

Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses
☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos	☐ Drained automobiles and military vehicles	☐ Solid fractions from sand/oil/water separators
☐ Light ballasts (contact SWO)	☐ Drained fuel filters (gas & diesel)	☐ Decommed Underground and Above Ground
☐ Hydrocarbons (contact SWO)		☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge	☐ Rags	☐ Drained fuel filters (gas & diesel)	☐ Crushed non-teme plated oil filters
☐ Plants	☐ Sludge from sand/oil/water separators	☐ PCBs below 50 parts per million	

REQUIRED: WASTE GENERATOR

Initials: _____ (If Initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only th site. I have verified this through the waste characterization method identifi prohibited and allowable waste items.

Radiation Survey Release for Waste Disposal
RCT Initials

☒	This containerized is free of external radioactive contamination.
☐	This containerized is exempt from survey due to process knowledge and/or origin.
☐	This containerized is free of radioactive contamination based on radiological survey.

SIGNATURE: /s/ Signature on file DATE: 8/23/01

Print Name: Craig Lyons

Signature: _____ /s/ Signature on file Date: 8-23-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Load Weight (net from scale or estimate): 20,000 Signature of Certifier: _____ /s/ Signature on file

SW-0818 (08/00)

/s/ Signature on file

SWG USE (Circle One Area) AREA

23

6

9

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7888.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Graig DavisPhone Number: 285-1834Location / Origin: Area 25 Decon Facility Demolition of Building 3128

CAU 554

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☒ NTS Waste☐ Pesticide☒ FRACO-wells☐ WAC Exception

(check one)

☐ Non-Ferrous☐ Asbestos Containing Material☐ FRACO-cells☐ Historic DDE/ENV

Pollution Prevention Category: (check one)

☒ Environmental Management☒ Defense Projects6/5 10/27/01

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical waste (needles, syringes, bloody clothing).

Additional Prohibited Waste

at the Area 2 U100 Landfill:

Sewage sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as gasoline (no benzene, lead, or fuel diesel fuel); lubricants and hydraulic; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-asbestosiform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 25 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos:☐ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity:

Additional waste accepted at the Area 6 U100 Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separation☐ Light ballast (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Decombed Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-leaky painted oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (if initialed, no radiological clearance is necessary)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and, to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those I see. I have verified this through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Graig Lyons

/s/ Signature on file

Date: 8-20-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain require a radiological clearance.

Radiation Survey Release for Waste Disposal	
RCT Initials	
☒	This container/load is free of external radioactive contamination.
☐	This container/load is exempt from survey due to process knowledge and origin.
☐	This container/load is free of radioactive contamination.
SIGNATURE: _____	
/s/ Signature on file. DATE: <u>8-20-01</u>	

SWO USE ONLY

A waste load may not be accepted or refused. 18000

/s/ Signature on file

(Waste definitions are available on page 2)

WASTE USE (Circle One) AREA 23 5 8 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other on-site disposal of materials.)

Waste Generator: Green DomePhone Number: 265-1884Location / Origin: Area 23 Decom Facility Demolition of Building 3128 CA 254

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

(check one)

☒ HX Kew 11/5/01☐ Putrescible☒ FFACO-onite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offite☐ Historic DOE/ENV

Pollution Prevention Category: (check one)

☒ Environmental Management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Contents

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical waste (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Frangible explosives

REQUIRED: WASTE CONTENTS ALLOWABLE WASTE

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 8 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or contain such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulic; kerosene; asphalt; petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-asbestos/foam)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos ☐ Plastics ☐ Non-Flammable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-flammable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Decontaminated Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 8 Hydrocarbon Landfill:

☐ Septic sludge ☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-harm pistons oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and, to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those items. I have verified this through the waste characterization method identified a prohibited and allowable waste items.

Print Name: Craig Lynn

/s/ Signature on file

Date: 8-20-01

Signature: _____

Note: Food waste, office trash and/or animal carcasses are considered not to contain require a radiological clearance.

Radiation Survey Release for Waste Disposal

RCT Initials

☒ This container/load is free of external radioactive contamination.☐ This container/load is exempt from survey due to process knowledge and origin.☐ This container/load is free of radioactive contamination based on radioanalysis.Signature: _____ /s/ Signature on file Date: 8-20-01

_____ /s/ Signature on file

Waste Use (Circle One)

AREA 23 5 8 LANDFILL

/s/ Signature on file

12913

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWW USE (Circle One Area) AREA**23****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operations (SWO) at 5-7888.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for roll-offs, dump trucks, and other on-site disposal of materials.)

Waste Generator: Greg DavisPhone Number: 285-1834Location/Origin: Area 23 Deco Facility Demolition of Building 3128CAUJ54

Waste Category: (check one)

☐ Commercial☒ Industrial GDS 10/18/01

Waste Type:

(check one)

☒ NTS☐ Pesticide☒ FFCO-on-site☐ WAC Exception☐ Non-Pesticide☐ Asbestos Containing Material☐ FFCO-off-site☐ Historic DOE/ENVPollution Prevention Category: (check one) OK☒ Environmental management☐ Defense ProjectsPollution Prevention Category: (check one) KU☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ Container

Prohibited Waste

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTE

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 8 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or containants such as: gasoline (no benzene, lead), jet fuel (Jett), jet fuel (Jett), lubricants and hydraulic; lacquer; asphalt; petroleum hydrocarbons; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☐ Plastics☐ Wire☐ Cable☐ Cloth☐ Insulation (non-asbestosiform)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)

Additional waste accepted at the Area 23 Mercury Landfill:

☐ Office waste☐ Food Waste☐ Animal Carcasses☐ Asbestos☐ Friable☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/water separators☐ Light ballasts (contact SWO)☐ Drained hot fibers (gas & diesel)☐ Decorated Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 8 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-toxic plastic oil filters☐ Plants☐ Sludge from sand/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**

Initials: _____ (if certified, no radiological clearance is necessary)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and, to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those materials that I have verified through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Craig Lyons

Signature: _____

/s/ Signature on file

Date: 8-20-01

Note: Food waste, office trash and/or animal carcasses are considered not to contain radiological materials.

Radiation Survey Release for Waste Disposal**FACT INDEX**☒ This waste is located in area of known radiological contamination.☐ This waste is exempt from survey due to process knowledge and origin.☐ This waste is located in area of radiological contamination based on radiological analysis.

SIGNATURE: _____ /s/ Signature on file

DATE: 8-20-01**WASTE ONLY**

Location: _____

/s/ Signature on file

Analytical Results for the Loft Floor and North Loft Wall Insulation
Letter from the NDEP granting permission for PCB waste to be managed as Bulk PCB
Product.

RFW Batch Number: 0107L224

Client: BECHTEL NEVADA V1180

Work Order: 60052001001 Page: 1

	Cust ID:	WC01000024	WC01000025	WC01000026	PBLKJH	PBLKJH BS	PBLKJH BSD
Sample	RFW#:	001	002	003	01LE0795-MB1	01LE0795-MB1	01LE0795-MB1
Information	Matrix:	SOLID	SOLID	SOLID	SOIL	SOIL	SOIL
	D.F.:	1000	1000	5.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	D %	D %	D %	68 %	65 %	62 %
	Decachlorobiphenyl	D %	D %	D %	72 %	68 %	61 %
		fl	fl	fl	fl	fl	fl
Aroclor-1016		95000 U	96000 U	490 U	33 U	33 U	33 U
Aroclor-1231		190000 U	190000 U	980 U	67 U	67 U	67 U
Aroclor-1232		95000 U	96000 U	490 U	33 U	33 U	33 U
Aroclor-1242		95000 U	96000 U	490 U	33 U	33 U	33 U
Aroclor-1248		95000 U	96000 U	490 U	33 U	33 U	33 U
Aroclor-1254		95000 U	670000	490 U	33 U	84 %	80 %
Aroclor-1260		180000	96000 U	1000	33 U	33 U	33 U

Loft
Floor

Loft
Floor

North
Loft
Insulation

/s/ Signature on file

2/24/01

U= Analyzed, not detected. J= Present below detection limit, B= Present in blank, NR= Not reported, NS= Not spiked.
% = Percent recovery, D= Diluted out, I= Interference, NA= Not Applicable, * = Outside of EPA CLP QC

D-77

(775) 687-4670

TDD 687-4678

Administration
Facsimile 687-5856

Water Pollution Control
Facsimile 687-4684

Mining Regulation and
Reclamation
Facsimile 684-5259

STATE OF NEVADA
KENNY C. GUINN
Governor



000048813

Conservation Activities
Federal Facilities
Air Quality
Water Quality Planning
Facsimile 687-6396

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

333 W. Nye Lane, Room 138
Carson City, Nevada 89706

November 30, 2001

E. Frank Di Sanza, Director
Waste Management Division
National Nuclear Security Administration
Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

RECEIVED COR REC'D

DEC 3 1 08 PM '01

Subject: Approval of Request for Authorization to Dispose of PCB Bulk Waste
U10c Solid Waste Disposal Site (SWDS)

Dear Mr. Di Sanza:

The Nevada Division of Environmental Protection, Bureau of Federal Facilities (NDEP), acting as the designated Solid Waste Management Authority (SWMA), has reviewed the October 29, 2001 letter from the National Nuclear Security Administration's Nevada Operations Office (NNSA/NV) and authorizes the requested disposal of 12 sheets of 4 foot x 8 foot plywood coated with PCB paint. The request is consistent with the permitted operation of the U10c SWDS and the Permit Application Revisions approved by the September 28, 2001 letter from NDEP (Liebendorfer) to NNSA/NV (Colarusso). Waste Acceptance Criteria, contained in the Permit Application, must also be met.

Please note that the request from NNSA/NV should have been sent to both the Carson City and the Las Vegas offices of NDEP. An NDEP response may be delayed when correspondence is not provided to both offices. As a minimum, the original should be sent to Paul Liebendorfer in Carson City and a copy should be sent to the Supervisor in Las Vegas. Additional NDEP individuals may be copied in both offices, as desired. Ted Zaferatos in Las Vegas and Bryan Trimberger in Carson City work on SWDS issues.

Questions or comments may be directed to me at (775) 687-4670, extension 3039 or Ted Zaferatos of my staff, at (702) 486-2856.

Sincerely,

/s/ Paul Liebendorfer

Paul J. Liebendorfer
Chief
Bureau of Federal Facilities

PJL/KKB/MAD/BT/TZ/tc
cc: A. Colarusso, NNSA/WMD
J.H. Hopper, BN, Mercury, NV
Carlton Soong, BN, Mercury, NV

P-72

ENV8



Waste Management
Corrective Actions
Federal Facilities
Air Quality
Water Quality Planning
Facsimile 687-8396



PETER G. MORRIS, Director
ALLEN BIAGGI, Administrator
687-6870

687-6878

Administration
Water Pollution Control
Facsimile 687-8336

Mining Regulation and Reclamation
Facsimile 684-5239

DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION

333 W. Nye Lane, Room 138
Carson City, Nevada 89706

September 28, 2001

Ms. Angela Colarusso
Waste Management Division
National Nuclear Security Administration
Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

Subject: Approval of the Revisions to the Permit Application for Class III
U10c Solid Waste Disposal Site (SWDS)
Permit SW 13 097 03, Nevada Test Site, Nevada

Dear Ms. Colarusso:

The Nevada Division of Environmental Protection, Bureau of Federal Facilities (NDEP), acting as the designated Solid Waste Management Authority (SWMA), hereby gives the National Nuclear Security Administration Nevada Operations Office concurrence to proceed with permit application revisions regarding acceptance of polychlorinated biphenyl bulk product waste on a case-by-case basis. The revisions are as detailed in the August 22, 2001 letter, and enclosure, from Jhon Carilli to Paul Liebendorfer. The updated Permit Application addresses the NDEP concerns as expressed in the March 28, 2001 letter from Paul Liebendorfer to Jhon Carilli.

NDEP found this request to be consistent with the permitted operation and maintenance of the U10c SWDS. These revisions will not require a public notice or review.

Bachtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE: Circle One AREA 23 AREA 6 AREA 9 LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Adam C. DaeGomPhone Number: 5-4779Location / Origin: Area 25, CAU-113, RMAD1 - Box 4 ft x 4 ft x 3 ft + 15 54 lbs plywood 4x8 PCB

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☐ NTS☐ Putrescible☒ FFACO-on-site☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-off-site☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☐ Process Knowledge☒ ContentsProhibited Waste
at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill: Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos**REQUIRED: WASTE CONTENTS ALLOWABLE WASTES**

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☒ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☒ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestos-form)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☒ Non-Friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☒ PCB Bulk Product waste☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-time plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those n site. I have verified this through the waste characterization method identified as prohibited and allowable waste items.

Print Name: Adam C. DaeGomSignature: /s/ Adam DaeGomDate: 02/06/02**Radiation Survey Release for Waste Disposal****RST Initials**☒

This containerized is free of external radioactive contamination.

☐

This containerized is exempt from survey due to process knowledge and origin.

☐

This containerized is free of radioactive contamination based on gamma analysis.

SIGNATURE: /s/ Signature on fileDATE: 2-7-02

BY: _____

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY

Waste Verification Date: _____

Signature: _____

/s/ Signature on file

BX-012 (05/00)

0-74

SWO USE (Circle One) AREA 23

LANDFILL

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7898.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rollofs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Adam C. DaeGom

Phone Number: 5-4779

Location / Origin: Area 25, CAU-113, RMAD 2020, Drums + 1-45 x 45 x 85 Box 136455 4145

Waste Category: (check one)

☐ Commercial☒ Industrial

Waste Type:

☐ NTS☐ Putrescible☒ FFACO-on-site☐ WAC Exception

(check one)

☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/NV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☐ Sampling & Analysis☐ Process Knowledge☒ Contents

Prohibited Wastes

at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids, PCBs above TSCA regulatory levels, and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste

at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbon; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☒ Metal☒ Wood☐ Soil☐ Rubber (excluding tires)☒ Demolition debris☒ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-Asbestos form)☐ Cement & concrete☐ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos: ☐ Friable ☐ Non-Friable (contact SWO if regulated load) Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☒ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☒ PCB Bulk Product Waste☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☐ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-teme plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 60 parts per million

REQUIRED: WASTE GENERATOR SIGNATURE

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Management Area (CWMA) and to the best of my knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those n sits. I have verified this through the waste characterization method identified at prohibited and allowable waste items.

Print Name: Adam C. DaeGom

Signature: /s/ Adam DaeGom

Date: 02/06/02

Radiation Survey Release for Waste Disposal
RCT Initials☒ This containerized is free of external radioactive contamination.☐ This containerized is exempt from survey due to process knowledge and origin.☐ This containerized is free of radioactive contamination based on analysis.

SIGNATURE: /s/ Signature on file DATE: 2-7-02

EN-0545 (03/99)

Note: Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

SWO USE ONLY: _____

/s/ Signature on file

0518 (03/00)

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**AREA 23 SANITARY LANDFILL, ASBESTOS CELL
LOAD VERIFICATION FORMS**

Bechtel Nevada**NTS Landfill Load Verification**

(Waste definitions are available on page 2)

SWO USE (Circle One Area) AREA**(23)****6****5****LANDFILL**

For waste characterization, approval, and/or assistance, contact Solid Waste Operation (SWO) at 5-7595.

REQUIRED: WASTE GENERATOR INFORMATION

(This form is for rolloffs, dump trucks, and other onsite disposal of materials.)

Waste Generator: Paul BrownPhone Number: 5-4391Location / Origin: CAS 05-44-02

Waste Category: (check one)

☐ Commercial☒ IndustrialWaste Type:
(check one)☐ NTS☐ Putrescible☒ FFACO-onsite☐ WAC Exception☐ Non-Putrescible☐ Asbestos Containing Material☐ FFACO-offsite☐ Historic DOE/ENV

Pollution Prevention Category: (check one)

☒ Environmental management☐ Defense Projects

Pollution Prevention Category: (check one)

☒ Clean-Up☐ Routine

Method of Characterization: (check one)

☒ Sampling & Analysis☐ Process Knowledge☐ ContentsProhibited Waste
at all three NTS landfills:

Radioactive waste; RCRA waste; Hazardous waste; Free liquids; PCBs above TSCA regulatory levels; and Medical wastes (needles, sharps, bloody clothing).

Additional Prohibited Waste
at the Area 9 U10c Landfill:

Sewage Sludge; Animal carcasses; Wet garbage (food waste); and Friable asbestos

REQUIRED: WASTE CONTENTS ALLOWABLE WASTES

Check all allowable wastes that are contained within this load:

NOTE: Waste disposed at the Area 6 Hydrocarbon Landfill must have come into contact with petroleum hydrocarbons or coolants such as: gasoline (no benzene, lead); jet fuel; diesel fuel; lubricants and hydraulics; kerosene; asphaltic petroleum hydrocarbons; and ethylene glycol.

Acceptable waste at any NTS landfill:

☐ Paper☐ Rocks / unaltered geologic materials☐ Empty containers☐ Asphalt☐ Metal☐ Wood☐ Soil☐ Rubber (excluding tires)☐ Demolition debris☐ Plastic☐ Wire☐ Cable☐ Cloth☐ Insulation (non-asbestosiform)☐ Cement & concrete☒ Manufactured items: (swamp coolers, furniture, rugs, carpet, electronic components, PPE, etc.)Additional waste accepted at the Area 23 Mercury Landfill: ☐ Office waste ☐ Food Waste ☐ Animal Carcasses☐ Asbestos:☒ Friable☐ Non-Friable (contact SWO if regulated load)

Quantity: _____

Additional waste accepted at the Area 9 U10c Landfill:

☐ Non-friable asbestos☐ Drained automobiles and military vehicles☐ Solid fractions from sand/oil/water separators☐ Light ballasts (contact SWO)☐ Drained fuel filters (gas & diesel)☐ Deconned Underground and Above Ground☐ Hydrocarbons (contact SWO)☐ Tanks

Additional waste accepted at the Area 6 Hydrocarbon Landfill:

☒ Septic sludge☐ Rags☐ Drained fuel filters (gas & diesel)☐ Crushed non-ferrous plated oil filters☐ Plants☐ Sludge from sand/oil/water separators☐ PCBs below 50 parts per million**REQUIRED: WASTE GENERATOR SIGNATURE**

Initials: _____ (If initialed, no radiological clearance is necessary.)

The above mentioned waste was generated outside of a Controlled Waste Site knowledge, does not contain radiological materials.

To the best of my knowledge, the waste described above contains only those items I have verified this through the waste characterization method identified: prohibited and allowable waste items.

Print Name: Craig Lyons

/s/ Signature on file

Date: 8-12-01**Radiation Survey Release for Waste Disposal****RCT Initials**☒ This containerload is free of external radioactive contamination.☐ This containerload is exempt from survey due to process knowledge and origin.☐ This containerload is free of radioactive contamination based on radioanalysis.SIGNATURE: /s/ Signature on file DATE: 9-12-01

SW-004 (09/99)

Food waste, office trash and/or animal carcasses are considered not to contain added radioactivity, and therefore do not require a radiological clearance.

Date: 8-12-01Signature of Certifier: 5860

/s/ Signature on file

Lester A. Hooton

SOLID WASTE TRACKER SYSTEM

Landfill ID	Date Of Receipt	Waste Category	Type Of Waste	EM or DP	Routine or Clean-up	Weight Pounds	Origin Of Waste		Comments
							Area No.	Building No.	
AREA 23	18-OCT-2001	1	FFACO-ONSITE	EM	CLEAN-UP	3500	25	CAU262	Comments
AREA 23	15-OCT-2001	1	FFACO-ONSITE	EM	CLEAN-UP	18000	25	CAU262	Comments
AREA 23	11-OCT-2001	1	FFACO-ONSITE	EM	CLEAN-UP	10000	25	CAU262	Comments
AREA 23	13-SEP-2001	1	ASBESTOS-NTS	EM	CLEAN-UP	5860	25	RMAD	Comments
AREA 23	26-MAR-2001	1	FFACO-ONSITE	EM	CLEAN-UP	240	25	CAU135	Comments
AREA 23	27-SEP-2000	1	FFACO-ONSITE	EM	CLEAN-UP	500	25	TEST PAD	Comments
AREA 23	20-SEP-2000	1	FFACO-ONSITE	EM	CLEAN-UP	8000	25	CAU240	Comments
AREA 23	07-SEP-2000	1	NTS	EM	CLEAN-UP	50	25	RMAD	Comments
									Comments
									Comments

If you Save data, a report on records that have been changed today will be printed to your default printer when you Exit.

Rechtel Nevada

<< < > >> Query Save Exit

Rechtel Nevada

Count: 18

Solid Waste Operations
Solid Waste Received Between 13-SEP-2001 and 13-SEP-2001
Sorted by Landfill ID, Receipt Date

Prepared on 31-OCT-2001

Page 1 of 1

Landfill Id	Date of Receipt	Type of Waste	Waste Category	Weight in Pounds	Origin of Waste	
					Area No.	Building
AREA 23	13-SEP-2001	NON-PUTRESCIBLE	C	23,980	NTS	ALL
	Comments:					
	13-SEP-2001	PUTRESCIBLE	C	1,500	23	8CP CA
	Comments:					
Total for AREA 23				25,480 Pounds		
				12.74 Tons		
AREA 23	13-SEP-2001	ASBESTOS -NTS	I	5,860	25	RMAD
	Comments: CAS 05-44-02 Friable Asbestos plus Mfg. items.					
Total for AREA 23				5,860 Pounds		
				2.93 Tons		
AREA 6	13-SEP-2001	NTS	I	45,000	12	12-16
	Comments: Asphalt, metal, cement and concrete.					
	13-SEP-2001	NTS	I	45,000	12	12-16
	Comments: Asphalt, metal, cement and concrete.					
	13-SEP-2001	NTS	I	45,000	12	12-16
	Comments: Asphalt, metal, cement and concrete.					
Total for AREA 6				135,000 Pounds		
				67.5 Tons		
AREA 9	13-SEP-2001	NTS	I	3,500	01	U1A
	Comments: Plastic, metal, wire, wood, cable, paper, cloth					
	13-SEP-2001	NTS	I	8,000	25	ESFPAD
	Comments: Demolition debris, Plastic, metal, wire, wood, cable, paper, soil, cloth, rocks					
Total for AREA 9				11,500 Pounds		
				5.75 Tons		

MIXED WASTE (MW) TRANSPORT MANIFESTS

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Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-MWFY01020 package numbers 187059, 187078, 213903, 980573, 982463, 982472, 982771, 982455 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

1-10-01

ED TAKAHASHI

BN-WOOD RWMS

SCIENTISTS

Received by

Organization

Title

/s/ Ed Takahashi

Signature

Date

10-JAN-2002

D-83

HAZTRAK ENTRY CONFIRMATION

On-Site Shipment (From NTS at NEVADA to NTS at NEVADA)

Tracking No: DPM02001

Carrier: GOVERNMENT TRUCK

Vehicle: 84652

Driver: ~~JARED LANCE~~ ^{gains} ~~born in SKUTZ~~

CDL: UNKNOWN

Depart: 10-JAN-2002 09:30

Arrival: 10-JAN-2002 11:00

From: HARRY PERRY
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-0685

Pager: 702-794-6363

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 05

Bldg: 5-7

Phone: 702-295-6808

Alt Phone: 702-295-6811

Pager:

Mobile:

Secondary Emergency STEFAN DUKE 702-295-7365

Response Contact

Entered by: DUKESJ

Date Modified: 10-JAN-2002

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
WASTE				
HAZARDOUS WASTE, SOLID, N.O.S.				
(1,1,1-TRICHLOROETHYLENE, ACETONE,	8 BOX(ES)	45,870.00 POUND(S)	3077	171
TOLUENE), 9, NA3077, III, F001, F003, F005		(GROSS)		

24-Hr Emergency Response Phone Number

702/295-6400

1/10/2002

D-84

1

Information on this page is protected by the Privacy Act of 1974 and is for official use only.

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-MWFY01020 package numbers 982798, 982785, 982778, 982796 were shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

1-10-01

ED TAKAHASHI
Received by

BN-WOOD ROOMS
Organization

Title

SCIENTIST
10 JAN 2002

/s/ Ed Takahashi

Signature

Date

10-JAN-2002

0-85

HAZTRAK ENTRY CONFIRMATION

On-Site Shipment (From NTS at NEVADA to NTS at NEVADA)

Tracking No: DPM02002

Carrier: GOVERNMENT TRUCK

Vehicle: 84901

Driver: JOHN ROSS

CDL: 465469575545

NV

Depart: 10-JAN-2002 10:00

Arrival: 10-JAN-2002 11:30

From: HARRY PERRY
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-0685

Pager: 702-794-6363

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 05

Bldg: 5-7

Phone: 702-295-6808

Alt. Phone: 702-295-6811

Pager:

Mobile:

Secondary Emergency STEFAN DUKE 702-295-7365

Response Contact:

Entered by: DUKESJ

Date Modified: 08-JAN-2002

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
WASTE				
HAZARDOUS WASTE, SOLID, N.O.S.				
, (1,1,1-TRICHLOROETHYLENE, ACETONE,	4 BOX(ES)	26,470.00 POUND(S)	3077	171
TOLUENE), 9, NA3077, III, F001, F003, F005		(GROSS)		

24-Hr Emergency Response Phone Number

702/295-8400

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-MWFY01020 package number 01M038 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

9-1-01

Received by

Organization

Title

J. Hill

BN

Scientist

/s/ Signature on file

Signature

Date

1-9-02

0-87

HAZTRAK ENTRY CONFIRMATION

On-Site Shipment (From NTS at NEVADA to NTS at NEVADA)

Tracking No: DPM02003

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: JARED LANGE

CDL:

UNKNOWN

NV

Depart: 09-JAN-2002 09:00

Arrival:

09-JAN-2002 10:30

From: HARRY PERRY
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-0685

Pager: 702-794-6363

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 05

Bldg: 5-7

Phone: 702-295-6808

Alt. Phone: 702-295-6811

Pager:

Mobile:

Entered by: DUKESJ

Date Modified: 08-JAN-2002

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
WASTE HAZARDOUS WASTE, SOLID, N.O.S. , (1,1,1-TRICHLOROETHYLENE, ACETONE, TOLUENE), 9, NA3077, III, F001, F003, F005	1 ROLL ON/ROLL OFF BOX(ES)	56,700.00 POUND(S) (GROSS)	3077	171

24-Hr Emergency Response Phone Number

702/295-6400

1/8/2002

D-88

1

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-MWFFY01020 package number 01M039 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

1-9-01

Received by

Organization

Title

Hill

BN RW's

Scientist

/s/ Signature on file

Signature

Date

1-9-02

D-89

HAZTRAK ENTRY CONFIRMATION

On-Site Shipment (From NTS at NEVADA to NTS at NEVADA)

Packing No: DPM02004

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: JOHN ROSS

CDL:

465468575545

NV

Depart: 09-JAN-2002 09:30

Arrival: 09-JAN-2002 11:00

From: HARRY PERRY
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-0685

Pager: 702-794-8363

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 05

Bldg: 5-7

Phone: 702-295-8808

Alt Phone: 702-295-8811

Pager:

Mobile:

Entered by: DUKESJ

Date Modified: 08-JAN-2002

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
WASTE				
HAZARDOUS WASTE, SOLID, N.O.S.				
1,1,1-TRICHLOROETHYLENE, ACETONE, TOLUENE, 9, NA3077, III, F001, F003, F005	1 ROLL ON/ROLL OFF BOX(ES)	67,380.00 POUND(S) (GROSS)	3077	171

24-Hr Emergency Response Phone Number

702/295-3400

1/8/2002

D-90

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-MWFY01020 package number 01M037 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date

7-9-07

Received by

Organization

Title

/s/ Signature on file

Signature

Date

1-9-02

D-91

HAZTRAK ENTRY CONFIRMATION

On-Site Shipment (From NTS at NEVADA to NTS at NEVADA)

Tracking No: DPM02005

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: JARED LANGE

CDL: UNKNOWN

NV

Depart: 09-JAN-2002 13:00

Arrival: 09-JAN-2002 14:30

From: HARRY PERRY
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 25

Bldg: R-MAD

Phone: 702-295-0685

Pager: 702-794-6363

Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023

Area: 05

Bldg: 5-7

Phone: 702-295-6808

Alt. Phone: 702-295-6811

Pager:

Mobile:

Entered by: DUKESJ

Date Modified: 08-JAN-2002

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
WASTE HAZARDOUS WASTE, SOLID, N.O.S. , (1,1,1-TRICHLOROETHYLENE, ACETONE, TOLUENE), 9, NA3077, III, F001, F003, F005	1 ROLL ON/ROLL OFF BOX(ES)	48,740.00 POUND(S) (GROSS)	3077	171

24-Hr Emergency Response Phone Number

702/295-6400

HAZTRAK ENTRY CONFIRMATION

On-Site Shipment (From NTS at NEVADA to NTS at NEVADA)

Tracking No: DPM02006

Carrier: GOVERNMENT TRUCK

Vehicle: UNKNOWN

Driver: JOHN ROSS

CDL:

465469575545

NV

Depart: 09-JAN-2002 13:30

Arrival: 09-JAN-2002 15:00

From: HARRY PERRY
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023
Area: 25
Bldg: R-MAD
Phone: 702-295-0685

Pager: 702-794-8363
Mobile:

To: JERRY BONN
BECHTEL NEVADA
BASE CAMP
MERCURY, NV 89023
Area: 05
Bldg: 5-7
Phone: 702-295-6808
Alt Phone: 702-295-6811
Pager:
Mobile:

Entered by: DUKESJ

Date Modified: 08-JAN-2002

Shipped Material(s)	Package(s)	Unit(s)	UN/NA	Guide No.
WASTE HAZARDOUS WASTE, SOLID, N.O.S. (1,1,1-TRICHLOROETHYLENE, ACETONE, TOLUENE), 9, NA3077, III, F001, F003, F005	1 SEALAND CONTAINER(S)	16,200.00 POUND(S) (GROSS)	3077	171

24-Hr Emergency Response Phone Number

702/295-6450

D-93

1/3/2002

1

Certificate of Disposal

This is to certify that the, Waste Stream No., LRY5-MWFY01020 package number 011759 was shipped and received at the Nevada Test Site Radioactive Waste Management Site in Area 5 for disposal as stated below.

Stefan Duke

Bechtel Nevada Waste Control

Scientist

Shipped by

Organization

Title

/s/ Stefan Duke

Signature

Date _____

1-9-c/

J. Hill
Received by

BN Rule
Organization

Title

Scientist

/s/ Signature on file

Signature

Date _____

205-1

D-94

APPENDIX E
RECORD OF TECHNICAL CHANGES (ROTCs)

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APPENDIX E

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RECORD OF TECHNICAL CHANGE #1

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Department of Energy

Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

93708

JUN 01 2001

RECEIVED COR 11-00-01

JUN 5 1 29 PM '01

Paul J. Liebendorfer, P.E., Chief
Department of Conservation and Natural Resources
Division of Environmental Protection
333 W. Nyc Lane, Room 138
Carson City, NV 89706-0851

SUBMITTAL OF THE RECORD OF TECHNICAL CHANGE (ROTC) NO. 1 FOR THE
CORRECTIVE ACTION PLAN FOR CORRECTIVE ACTION UNIT 254; AREA 25
DECONTAMINATION FACILITY, NEVADA TEST SITE, NEVADA

Please find enclosed for your information and files two controlled copies of the subject
ROTC. If you have any questions, please contact Sabine T. Curtis, of my staff, at
(702) 295-0542.

/s/ Runore Wycoff

Runore C. Wycoff, Director
Environmental Restoration Division

ERD:STC

Enclosure:
As stated

cc w/encl. (controlled):
M. D. McKinnon, NDEP, Las Vegas, NV
S. D. Lawrence, EM Records Center,
NNSA/NV, Las Vegas, NV

E-7

ENV 38

Paul J. Liebendorfer

-2-

JUN 01 2001

cc w/encl. (uncontrolled):

BN Correspondence, Las Vegas, NV
Environmental Management Library, BN, Las Vegas, NV
D. L. Gustafson, BN, Las Vegas, NV
A. M. Heidema, BN, Las Vegas, NV
W. F. Johnson, BN, Mercury, NV
S. J. Nacht, BN, Mercury, NV
C. M. Obi, BN, Mercury, NV
J. L. Cowley, BN, Mercury, NV
L. E. Wille, IT, Las Vegas, NV
J. L. Appenzeller-Wing, ERD, NNSA/NV, Las Vegas, NV
S. T. Curtis, ERD, NNSA/NV, Las Vegas, NV

cc w/o encl:

K. K. Beckley, NDEP, Carson City, NV
M. A. DeBurle, NDEP, Carson City, NV
L. J. Gabriel, DTRA, Mercury, NV
DTRA Environmental, M/S 645, Mercury, NV
G. M. Romano, IT, Las Vegas, NV
K. A. Hoar, ESHD, NNSA/NV, Las Vegas, NV
P. L. Hall, EM, NNSA/NV, Las Vegas, NV

RECORD OF TECHNICAL CHANGE

Technical Change No. 1Page 1 of 3Project/Job No. WBS 104010306140Date 5/18/2001Project/Job Name CAU 254, Area 25 RMAD Decontamination Facility

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

Dennis GustafsonTask Manager

(Name)

(Title)

The project time will be Unchanged.Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 254, Area 25
Decontamination Facility Nevada Test Site, Nevada

Approved By:

/s/ Janet Appenzeller-WingDate 5/23/01Janet Appenzeller-Wing, Project Manager
Industrial Sites Project/s/ Signature on fileDate 5/23/01Richard C. Wycoll, Division Director
Environmental Restoration DivisionClient Notified Yes ☐ No ☐ Date _____NDEP Concurrence Yes ☐ No ☐ Date _____Contract Change Order Required Yes ☐ No ☐ _____

Contract Change Order No. _____

Technical Change No. 1

Page 2 of 3

Project/Job No. 799417.00040035

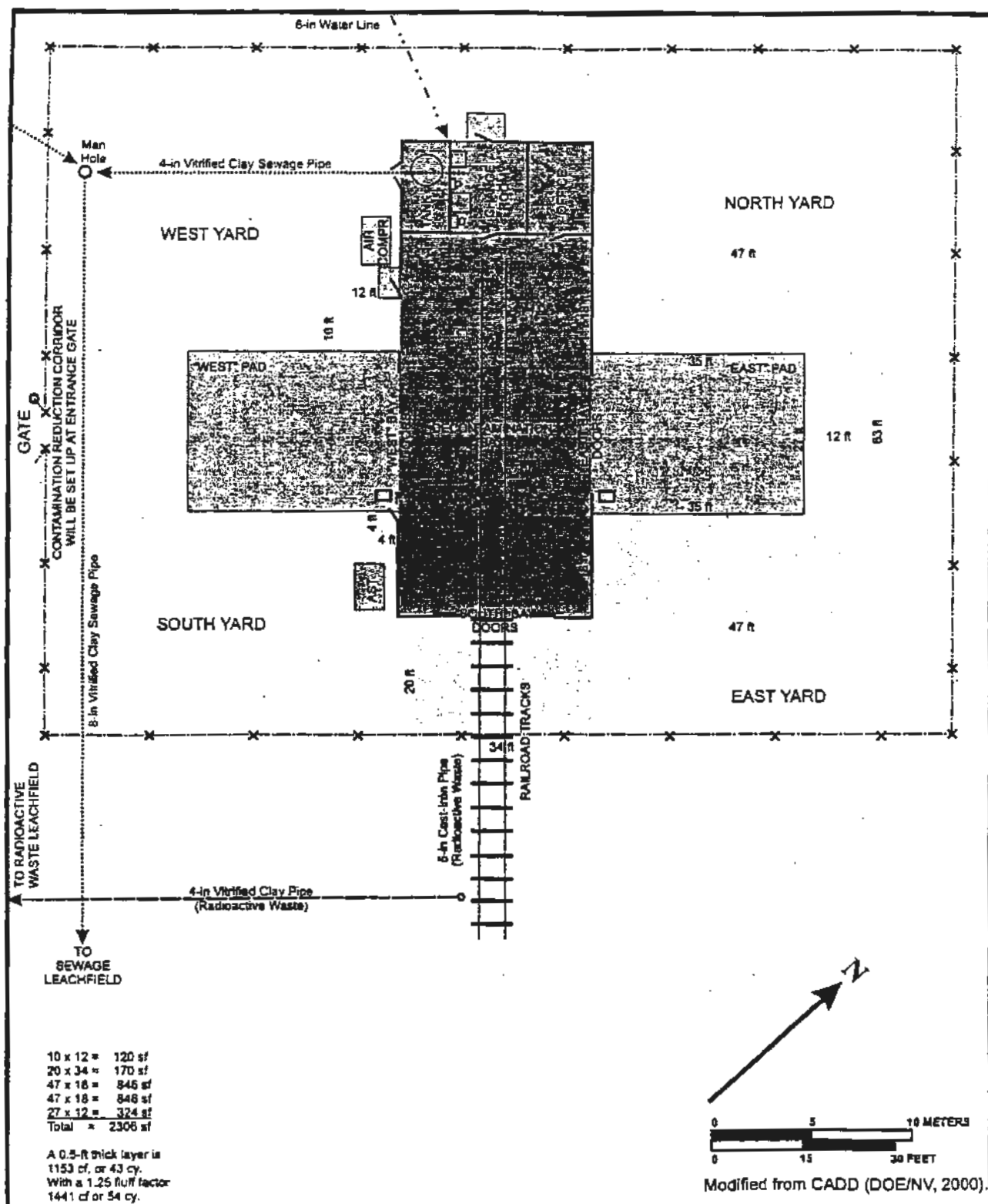
Date 5/18/2001

Project/Job Name CAU 254, Area 25 RMAD Decontamination Facility

This Record of Technical Change describes additional remediation verification work to be performed at CAU 254 under Section 2.4, Remediation Verification, of the CAP to ensure clean closure of this CAU.

The following paragraph describes the additional work to be performed:

Radioactive impacted soil adjacent to the decontamination pads (see attached figure) will be excavated and disposed at the appropriate Nevada Test Site permitted land fill. Soil samples will be collected for analysis to verify clean-up criteria have been met. The soil samples will be analyzed by Gamma Spectrometry since Cesium-137 (Cs-137) is the predominate radionuclide in the soil and can be easily quantified using Gamma Spectrometry. All other radionuclides are a fraction of the Cs-137 activity and can be calculated from scaling factors developed from Area 25 Deactivation and Dismantling (D&D) waste streams. The average radionuclide concentrations of all soil samples collected will not exceed 7 pico Curies per gram (pCi/g) for Cs-137, and no individual sample will exceed 21 pCi/g for Cs-137. If this criteria is not met, additional excavation and verification sampling will be done.



**PRELIMINARY ESTIMATE OF AREAL EXTENT OF
LOW-LEVEL RADIOACTIVE WASTE SOIL TO BE REMOVED
AT CAU 254: AREA 25 R-MAD DECONTAMINATION FACILITY**

RECORD OF TECHNICAL CHANGE

Technical Change No. 1
Project/Job No. WBS 104010306140
Project/Job Name CAU 254, Area 25 RMAD Decontamination Facility

Page 1 of 2
Date 5/18/2001

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

Dennis Gustafson

(Name)

Task Manager

(Title)

The project time will be Unchanged.

Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 254, Area 25 Decontamination Facility Nevada Test Site, Nevada

Approved By:

/s/ Janet Appenzeller-Wing

Date

5/23/01

Janet Appenzeller-Wing, Project Manager
Industrial Sites Project

/s/ Signature on file

Date

5/23/01

John C. Wyant, Division Director
Environmental Restoration Division

Client Notified Yes ☐ No ☒ Date

NDEP Concurrence Yes ☒ No ☐ Date

Contract Change Order Required Yes ☐ No ☐

Contract Change Order No. 5/30/01

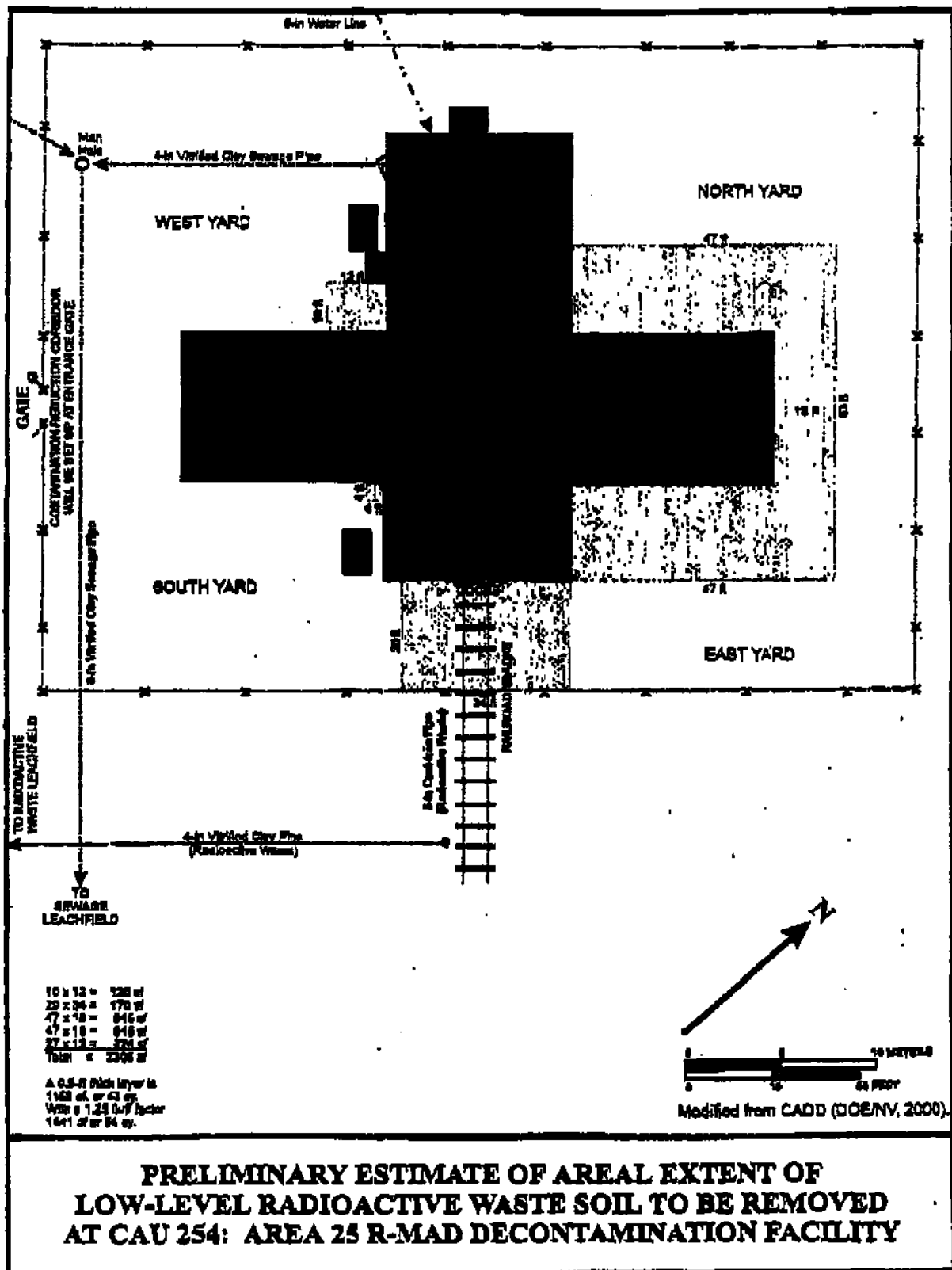
Technical Change No. 1
Project/Job No. 799417.00040035
Project/Job Name CAU 254 Area 25 RMAD Decontamination Facility

Page 2 of 3
Date 5/18/2001

This Record of Technical Change describes additional remediation verification work to be performed at CAU 254 under Section 2.4, Remediation Verification, of the CAP to ensure clean closure of this CAU. The following paragraph describes the additional work to be performed:

Radioactive impacted soil adjacent to the decontamination pads (see attached figure) will be excavated and disposed at the appropriate Nevada Test Site permitted land fill. Soil samples will be collected for analysis to verify clean-up criteria have been met. The soil samples will be analyzed by Gamma Spectrometry since Cesium-137 (Cs-137) is the predominant radionuclide in the soil and can be easily quantified using Gamma Spectrometry. All other radionuclides are a fraction of the Cs-137 activity and can be calculated from scaling factors developed from Area 25 Deactivation and Dismantling (D&D) waste streams. The average radionuclide concentrations of all soil samples collected will not exceed 7 pico Curies per gram (pCi/g) for Cs-137, and no individual sample will exceed 21 pCi/g for Cs-137. If this criteria is not met, additional excavation and verification sampling will be done.

Post-It Fax Note 7871		Date	5/18/2001
To John Wong		From	Sabine
Co/Dept		Co	
Phone #		Phone #	
Fax #		Fax #	



RECORD OF TECHNICAL CHANGE #2

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Department of Energy

Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

96633

SEP 13 2001

DECITEL OCR 11/01

SEP 19 12 32 PM '01

Paul J. Liebendorfer, P.E., Chief
Department of Conservation and Natural Resources
Division of Environmental Protection
333 W. Nye Lane, Room 138
Carson City, NV 89706-0851

SUBMITTAL OF RECORD OF TECHNICAL CHANGE (ROTC) NO. 2 FOR THE
CORRECTIVE ACTION PLAN FOR CORRECTIVE ACTION UNIT 254: AREA 25
DECONTAMINATION FACILITY, NEVADA TEST SITE, NEVADA

Please find enclosed two controlled copies of the subject ROTC for your project files. If
you have any questions regarding these changes, please contact Sabine T. Curtis, of my staff, at
(702) 295-0542.

/s/ Runore Wycoff

ERD:STC

Runore C. Wycoff/Director
Environmental Restoration Division

Enclosure:
As stated

cc w/encl. (controlled):
Supervisor, NDEP, Las Vegas, NV
S. D. Lawrence, EM Records Center,
NNSA/NV, Las Vegas, NV
Southern Nevada Public Reading Room,
Las Vegas, NV
Public Reading Room Coordinator, IT,
Las Vegas, NV



RECORD OF TECHNICAL CHANGE

Technical Change No. 2Page 1 of 2Project/Job No. WBS 104010306140Date 8-22-2001Project/Job Name CAU 254, Area 25 RMAD Decontamination Facility

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

Greg Doyle

(Name)

Task Manager

(Title)

The project time will be Unchanged.Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 254, Area 25
Decontamination Facility Nevada Test Site, Nevada

Approved By:

/s/ Janet Appenzeller-WingDate 9-6-01Janet Appenzeller-Wing, Project Manager
Industrial Sites Project**UNCONTROLLED**/s/ Signature on fileDate 9/6/01Reinore C. Wyedff, Division Director
Environmental Restoration DivisionClient Notified Yes ☒ No ☐ Date 9-6-01NDEP Concurrence Yes ☐ No ☐ Date Contract Change Order Required Yes ☐ No ☐Contract Change Order No.

Mixed hazardous and radioactive waste and low level radioactive waste accumulated during closure activities at CAU 254 is currently being stored onsite while awaiting characterization, profiling and disposal.

Recent (June 25, 2001) correspondence with the Nevada Division of Environmental Protection (NDEP), indicates that once the accumulation of these wastes is complete, they must be shipped to the appropriate destination within 15 days of the receipt of the final characterization data. The RWAP process involved with the waste disposal from CAU 254 will cause the storage of these wastes to extend beyond both State and RCRA limits. Additional guidance from the State of Nevada allows for the submittal of a schedule, which outlines the actual waste disposal timeline. Based upon our best estimate of the RWAP process currently being implemented for the CAU 254 mixed and low-level wastes, we propose the following schedule.

MIXED HAZARDOUS AND RADIOACTIVE WASTES

Compile Data Validation - 09/27/01

Submit profile to RWAP - 10/18/01

RWAP approval - 12/21/01

Ship Waste - 01/15/02

LOW-LEVEL WASTES

Submit profile to RWAP - 08/25/01

RWAP approval - 10/22/01

Ship Waste - 11/12/01

RECORD OF TECHNICAL CHANGE

Technical Change No. 2Page 1 of 2Project/Job No. WBS 104010306140Date 8/22/2001Project/Job Name CAU 254 Area 25 EMAD Decontamination Facility

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

Greg DavisTask Manager

(Name)

(Title)

The project time will be Unchanged.Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 254, Area 25
Decontamination Facility Nevada Test Site, Nevada

Approved By:

/s/ Janet Appenzeller-WingDate 9-6-01Janet Appenzeller-Wing, Project Manager
Industrial Site Project/s/ Signature on fileDate 9/6/01Blaine C. Wolfe, Division Director
Environmental Restoration DivisionOther Notified Yes ☒ No ☐ Date 9-6-01NDEP Construction Yes ☒ No ☐ Date 9/7/01Contract Change Order Required Yes ☐ No ☒

Contract Change Order No. _____

Mixed hazardous and radioactive waste and low level radioactive waste accumulated during closure activities at CAU 254 is currently being stored onsite while awaiting characterization, profiling and disposal.



Recent (June 25, 2001) correspondence with the Nevada Division of Environmental Protection (NDEP), indicates that once the accumulation of these wastes is complete, they must be shipped to the appropriate destination within 15 days of the receipt of the final characterization data. The RWAP process involved with the waste disposal from CAU 254 will cause the storage of these wastes to extend beyond both State and RCRA limits. Additional guidance from the State of Nevada allows for the submittal of a schedule, which outlines the actual waste disposal timeline. Based upon our best estimate of the RWAP process currently being implemented for the CAU 254 mixed and low-level wastes, we propose the following schedule.

MIXED HAZARDOUS AND RADIOACTIVE WASTES

Complete Data Validation - 09/27/01

Submit profile to RWAP - 10/18/01

RWAP approval - 12/21/01

Ship Waste - 01/15/02

LOW-LEVEL WASTES

Submit profile to RWAP - 09/25/01

RWAP approval - 10/22/01

Ship Waste - 11/12/01

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RECORD OF TECHNICAL CHANGE #3



Department of Energy

Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

97383

OCT 04 2001

OCT 11 10 22 AM '01
DECHTEL CGR MFCM

Paul J. Liebendorfer, P.E., Chief
Department of Conservation and Natural Resources
Division of Environmental Protection
333 W. Nye Lane, Room 138
Carson City, NV 89706-0851

SUBMITTAL OF THE RECORD OF TECHNICAL CHANGE (ROTC) #3 FOR CORRECTIVE ACTION UNIT 254: AREA 25 R-MAD DECONTAMINATION FACILITY, NEVADA TEST SITE, NEVADA

Please find enclosed two controlled copies of the subject ROTC for your files. If you have any questions or comments regarding this matter, please contact Sabine T. Curtis, of my staff, at (702) 295-0542.

/s/ Runore Wycoff

for Runore C. Wycoff, Director
Environmental Restoration Division

ERD:STC

Enclosure:
As stated

cc w/encl. (controlled):
Supervisor, NDEP, Las Vegas, NV
S. D. Lawrence, EM Records Center,
NNSA/NV, Las Vegas, NV
Southern Nevada Public Reading Room,
Las Vegas, NV
Public Reading Room Coordinator, IT,
Las Vegas, NV

05 1 WD ST 100 1002

F-24

ENV 38

97383

RECORD OF TECHNICAL CHANGE

Technical Change No. 3Page 1 of 2Project/Job No. WBS 104010306140Date 9/10/2001Project/Job Name CAU 254 Area 25 RMAD Decontamination Facility

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

Greg DoyleTask Manager

(Name)

(Title)

The project time will be Unchanged.Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 254, Area 25
Decontamination Facility Nevada Test Site, Nevada

Approved By:

/s/ Janet Appenzeller-Wing

Date

9/12/01Janet Appenzeller-Wing, Project Manager
Industrial Sites Project/s/ Signature on file

Date

9/13/01Rubens C. Wycoff, Division Director
Environmental Restoration DivisionClient Notified Yes ☐ No ☐ Date _____NDEP Concurrence Yes ☐ No ☐ Date _____Contract Change Order Required Yes ☐ No ☐ _____

Contract Change Order No. _____

F-25

This Technical Change Notice addresses Corrective Action Unit (CAU) 254 Corrective Action Plan (CAP).

Acetone was identified as a constituent of concern during the Corrective Action Investigation fieldwork. Based on review of past activities conducted at the Area 25 R-MAD Decontamination Building it was decided that acetone was used in the decontamination process and that it was a F003 Resource Conservation and Recovery Act (RCRA) listed waste. The CAU 254 CAP specified that all hazardous waste would be removed from CAU 254. It was assumed that any acetone found within CAU 254 would be associated with radiological contamination and would be remediated during the shot blast decontamination activities. Five verification samples were collected from the remediated areas of the CAU 254 concrete floor. Four of these samples contained above detection limits of acetone. The highest detected concentration of acetone was 110 parts per billion (ppb).

The National Nuclear Security Agency Nevada Operations Office (NNSA/NV), Environmental Restoration Division (ERD) proposes that further removal of concrete from the CAU 254 foundation is not necessary. The concentrations of acetone detected within the concrete are four orders of magnitude lower than the U. S. Environmental Protection Agency (EPA) Region 9 Preliminary Remediation Goals (PRG). The EPA Region 9 PRG for acetone in residential soil is 1,600 parts per million (ppm) or 1,600,000 ppb. Given that the acetone within the CAU 254 concrete is not readily leachable into the surrounding soil, NNSA/NV ERD requests that the CAU 254 CAP be modified to allow the use of the EPA Region 9 PRG for acetone in soil as the closure criteria for the acetone remaining in the concrete floor.

97383

RECORD OF TECHNICAL CHANGE

Technical Change No. 3

Page 1 of 2

Project/Job No. WBS 104010306140

Date 9/10/01

Project/Job Name CAU 254 Area 25 RMAD Decontamination Facility

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

Gary Davis

Task Manager

(Name)

(Title)

The project time will be Unchanged.

Applicable Project-Specific Document(s): Corrective Action Plan for Corrective Action Unit 254, Area 25
Decontamination Facility Nevada Test Site, Nevada

Approved By:

/s/ Signature on file

Date 9/12/01

John Appender, Task Manager
Industrial Site Project

/s/ Signature on file

Date 9/13/01

Robert C. Wynne, Division Director
Environmental Restoration Division

Client Notified Yes No Date 9/19/01

NDEP Consensus Yes X No No Date 9/19/01

Contract Change Order Required Yes No

Contract Change Order No.

E-27

This Technical Change Notice addresses Corrective Action Unit (CAU) 254 Corrective Action Plan (CAP).

97383

Acetone was identified as a constituent of concern during the Corrective Action Investigation fieldwork. Based on review of past activities conducted at the Area 15 R-MAD Decontamination Building it was decided that acetone was used in the decontamination process and that it was a F003 Resource Conservation and Recovery Act (RCRA) listed waste. The CAU 254 CAP specified that all hazardous waste would be removed from CAU 254. It was assumed that any acetone found within CAU 254 would be associated with radiological contamination and would be remediated during the shot blast decontamination activities. Five verification samples were collected from the remediated areas of the CAU 254 concrete floor. Four of these samples contained above detection limits of acetone. The highest detected concentration of acetone was 110 parts per billion (ppb).

The National Nuclear Security Agency Nevada Operations Office (NNSA/NV), Environmental Restoration Division (ERD) proposes that further removal of concrete from the CAU 254 foundation is not necessary. The concentrations of acetone detected within the concrete are four orders of magnitude lower than the U. S. Environmental Protection Agency (EPA) Region 9 Preliminary Remediation Goals (PRG). The EPA Region 9 PRG for acetone in residential soil is 1,600 parts per million (ppm) or 1,600,000 ppb. Given that the acetone within the CAU 254 concrete is not readily leachable into the surrounding soil, NNSA/NV ERD requests that the CAU 254 CAP be modified to allow the use of the EPA Region 9 PRG for acetone in soil as the closure criteria for the acetone remaining in the concrete floor.

APPENDIX F

USE RESTRICTION INFORMATION

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APPENDIX F

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CAU Use Restriction Form	F-5
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CAU USE RESTRICTION FORM

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CAU Use Restriction Information

CAU Number/Description: CAU 254: Area 25 R-MAD Decontamination Facility, Building 3126

Applicable CAS Numbers/Descriptions: CAS 25-23-06

Contact (organization/project): DOE/NV Industrial Sites Project Manager

Surveyed Area (UTM coordinates; Zone 11, NAD 27): Refer to Attached Map

Survey Date: 11/06/01 Survey Method (GPS, etc.): GPS, Converted to NAD 27

Site Monitoring Requirements: Visual inspection of posted signs as specified by the closure documentation (DOE/NV 2002).

Required Frequency (quarterly, annually?): Annually

If Monitoring Has Started, Indicate Last Completion Date: N/A

Use Restrictions

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 activity that may alter or modify the containment control as approved by the state and identified in the CAU Closure Report or other CAU documentation unless appropriate concurrence is obtained in advance.

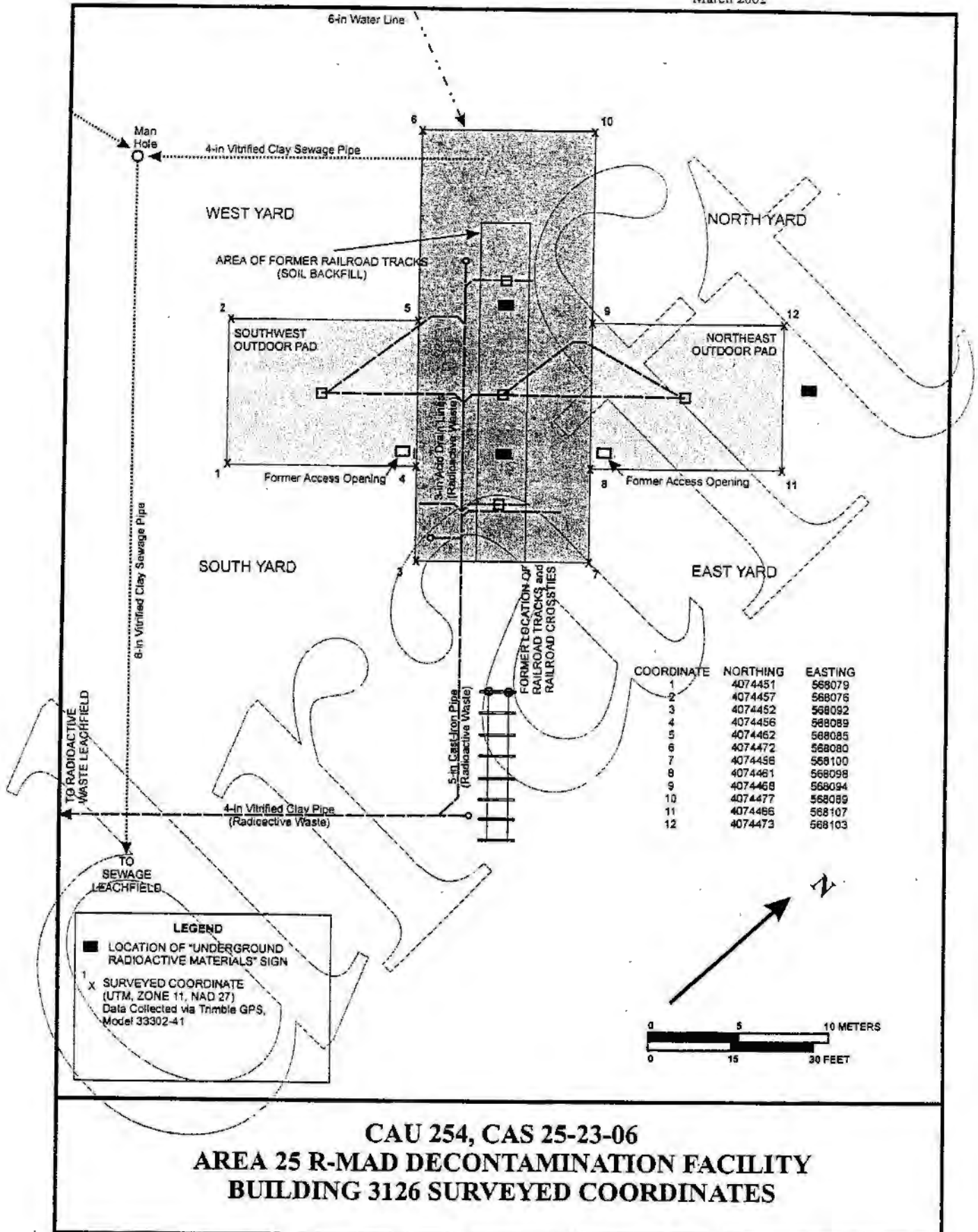
Comments: Radiological contamination is present below the building pad at a minimum of approximately 15 centimeters (6 inches) within the boundaries of the surveyed location. Refer to the Closure Report for additional information on the condition of the site and any monitoring and/or inspection requirements.

Submitted By: _____ Date: _____

cc with copy of surveyed location map:
CAU Files (2 copies)

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SURVEYED COORDINATE MAP FOR CAU 254, CAS 25-23-06



RAW COORDINATE DATA

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Coordinate Conversion Parameter Database: C:\Program Files\Blue Marble Geo\Geographic Calculator\data\geocalc.dat

	C1	C2	C3	C4
R1	North	West		
R2	Deg/Min/Sec	Deg/Min/Sec		
	c	c		
R3	36.489130	-116.142536	4074431	568079
R4	36.489181	-116.142578	4074437	568076
R5	36.489131	-116.142474	4074432	568092
R6	36.489175	-116.142490	4074436	568089
R7	36.489208	-116.142513	4074462	568085
R8	36.489260	-116.142531	4074472	568080
R9	36.489176	-116.142417	4074436	568100
R10	36.489200	-116.142432	4074461	568098
R11	36.489238	-116.142458	4074468	568094
R12	36.489286	-116.142493	4074477	568089
R13	36.489230	-116.142370	4074466	568107
R14	36.489263	-116.142396	4074473	568103
R15				
R16	Notes:			
	Elevation:			
R17	1171.76 m asl			
	Source of Data:			
R18	Trimble GPS, Model 33302-41			

Point Database Conversion Settings

Input North/South Column: C1

Input East/West Column: C2

Input Height Column:

Output North/South Column: C3

Output East/West Column: C4

Output Height Column:

Output Scale Factor Column: (none)

Output Convergence Column: (none)

Coordinate System Group "Geodetic Latitude / Longitude"

Coordinate System: Latitude / Longitude

Datum: WGS 1984

Ellipsoid: WGS 1984

Semi-major axis (meters): 6378137.0000

Semi-minor axis (meters): 6356752.3142

1st eccentricity: 0.081819190843

2nd eccentricity: 0.082094437950

Flattening: 0.003352810665

Reciprocal flattening: 298.2572

Coordinate System Group "Universal Transverse Mercator"

Coordinate System: Zone 11N (120 W to 114 W)

Datum: NAD 1927 - Western US

Datum Transformation Method: Molodensky

X shift to WGS84 (meters): -8.000000

Y shift to WGS84 (meters): 159.000000

Z shift to WGS84 (meters): 175.000000

Prime meridian shift (deg): 0.000000000000

Ellipsoid: Clarke 1866

Semi-major axis (meters): 6378206.4000

Semi-minor axis (meters): 6356583.8000

1st eccentricity: 0.082271854225

2nd eccentricity: 0.082551710741

Flattening: 0.003390075304

Reciprocal flattening: 294.9787

Projection: Transverse Mercator/Gauss-Kruger

Units: Meter

Origin latitude: N 0 00 00.0000

Origin longitude: W 117 00 00.0000

False northing: 0

False easting: 500000

Scale factor: 0.99960000

*Blue Marble Geographics.**"The Geographic Software Component Company."*

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APPENDIX G
COPIES OF FIELD NOTES

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APPENDIX G
TABLE OF CONTENTS

Copies of Field Notes	G-5
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Copies of Field Notes

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0800 VULS4 kickoff meeting in 6:00 conf room

contingency plan

Joni Nelson, Gina Cook, Renee Brownstein, Jesse Cisneros, Roger

review SOW and

→ leads Pre-Job Briefing: Ints, common, schedule, manpower, etc.

- need manlift training for specific manlift

/ soil sampling ^{inside} PCT

- cobasys transite wall board - non-frable unless pulverized

JHAs

- Each day's application work packages will be discussed at morning safety briefing

- Each day's waste streams will be discussed at morning safety briefing

- increase portapotties servicing

0935 Review of SS HASP by Brownstein

sign Pre-Job Briefing

- HAZWOPER and Radiation II

- Job specific JHAs

- Everyone has authority to stop work

- Owl gait, hand signals

- bioassay - only for workers working under our RWP

- hazcom MSDS

- asbestos, PCBs, lead

- disposing of HEPA (Type 100) - compactable waste (rad?) ^{how?}

- heat stress, WBGT monitoring, ear temps, PIC and ice vests

- weather - lightning. Need lead time to get workers out of EZ

- noise - shotblast will require double hearing protection (1/10th, orange vests)

- heavy equipment - stay in line of sight, buddy system, backup alarms/lights, vests

- excavations - competent person, not excavate to exceed 4'

- buried utilities

- portable eye wash stations, ABC extinguishers, first aid kits

- Daily PTHR & safety briefings

- medical facilities, YMP if transporting. All if need ambulance/EMT
- hookups - snakes, rodents, do not feed, harass wildlife
- fire extinguishers, good housekeeping, site control, driving safety
- assembly area (initially immediately outside main gate)
- EZ rider

5

1025
1004

done, read for mercury 1235 head for RMAD

1310 arrive @ RMAD gate, get safety briefing from Dana

Take final, pre-closure photos of RMAD Dean Facility

10

Mike LeRoy says no owl spotted today. I concur

1430 John Pennington swings by, wonders if paperwork for debris disposal is ready

Jim McIliskey

Robert Brownstein

David Milligan

Jessie Cisneros

Johnny Brooks

15

Mike Vandiver

Rich Farkenton

Mike LeRoy

Bill Southerton

Dana Koelker

John Pennington

Roger Wolfley

Jared Lange

Mike Wilkins

Robert Cuervo

20

Gary Gaudin

air compressor on towboy

Daniel Jolapini

forelift

Roger Wolfley

1530 depart RMAD for Mercury

25

1600 arrive @ dam C

SIGNATURE

/s/ Signature on file

DATE

5/21/2001

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

22 MAY 2001

- 0512 arrive (RFD), unlock front gate Ginalock,

Operators Daniel Salgado & Betty Dellenis

Truck driver Jason Manje arrives

- Larry von Dillen

0315 RCT arrive in sub-town 3 trucks + Jesse

0318 John Pennington arrives

(B-170)

E-2

F 174

0510 Plan of Day - John Pennington - still nozin site set up, load out debris

1- disposal (take down) of 202 doors

2.00 Daily Tailgate Safety Briefing - Daniel, Bushy, Jesse, John, Jesse

- Trip haz, sharp edges (gloves), lifting (get help) (Curtis Grier)

- Level 2, cutters under debris, heavy equipment, assembly point

15 0618 John P. - PTHR. Daniel Salgado.

buy doors - F 174

PTHR

Roger Wolfen

Ron Rine

Joe Ramez

Don Koelker

Jim Wicker

AM/insulator

Compendia GF

RCT

20 Pat Morris, Dunkin Emen, Larry G. Hett, Lawrence Hillman

Dave Kramm - Insulation

- 0710 Carpenters - D. Ron Fairbanks, Bill Sutter (com. 1)

John P. - PTHR for buy doors

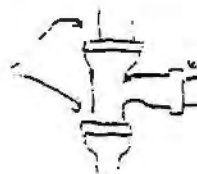
25

- 0740 Check out w/ Jim McCulloch & Jesse Carpenter. At least 2

Work continued from Page _____

There are "vent" pipes w/ lead-oilr packing
treat as lead waste

in some cases sprayed green for red.



0930 Dave Milogran + Johnny Brooks Labors being directed by John P.
will set up T-post + rope fencing. Gina has signs

1000 Mike Foy + drops of ISOL's work package w/ Dudley.

1025 Small front end loader smooths out worn parking area.

fork lift moves debris

teamster to finished trailer - waits

1045 - ^{semi} trailer may have mechanical problem

1050 1500's + crew come out to check debris

1115 Still trying to get 1500's moving. Dudley looking for low-background area

Electricians installing ground for generator

① ISOL 9435477 - installing ② "F" + small rail car ③ Emergency

1200 Dudley and Larry and Lawrence leave for lunch

Pat and Mike Lefy continue 1500's

1245 break for lunch

240 Gina leads safety briefing re. emergency response plan.

emergency evacuation horns - 2 night blasts.

Emergency response plan review of fire, explosion, release, etc.

1310 1500 ④ Buckets of bats

325 1500 ⑤ Plywood hoist of parts Harry Perry + Stephen Over arrive.

400 Pat Morris takes 1500's to top to big bldg.

Discuss lead pipe packing w/ Harry + John P. - lead work package.

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-10

TITLE

Work continued from Page _____

(5/22/2007 continued)

PROJECT NO.

BOOK NO.

87

1630 1/2" diameter just spots, 1/2" L x 1/2" W, all labels good to go.

1615 Joel Nelson, Greg Doyle, Craig Lyons move

1545 Lowboy semi leaves with waste for AUC.

1500's was performed for item ① green platform with yellow railing.

② "F-4" small rail car, and small solid aluminum tank-like platform that was previously, elevated with scrape and electric surveys by 121 Craig Lyons appears release and issues an orange sticker 1311-2016 "Removal 5-000 Release for Waste Disposition"

Light bulbs in ceiling of room bay # 32 "500 W, Normal, 125-130 W, 1000 HP U.S.A."

3 1/2" long, 4 1/4" wide 

Light bulbs on bldg above station pads # 32 "WESTINGHOUSE, (W), 750 W, 130 volts"

12" long, 6" wide 

Both are clear glass with wire filaments, straight wire supports, with large for otherwise normal-looking terminal connectors. Incandescent

1630 departure 5:00

1700 arrive dinner.

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60606 Made in USA

SIGNATURE

/s/ Signature on file

Work continued to Page _____

DATE 5/22/2007

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-11

WEDNESDAY
23 MAY 2001

0820 Arrive @ ROAD. John Pennington will take buldo, ask about clearing

John then set up, clean up, load trucks. Crane, ~~hydraulic~~ forklift, material

Supervisor John Pennington

Team boom

Operator Ryan Worley

0820 Gina leads into loading area

5 Lumber Johnny Brooks, Morris Gaud

Handworker David Kromerich

Handworker Jesus Perez

Operator Benny Doleau

Operator Daniel Searge

10 Safety Gina Lee

Crew Chief Curtis Orr

• heavy equip, keep in sight

• loading protection

• hard struts - watch, break, ground

• Load D

• Emergency Communication, phone nos.

• 2nd watch, team

• 2nd watch

• WP still 170 174

0830 Pennington Worley review WPs for work PTHIR 174

Brooks for 170

15

0912 Call Craig Lyons. He gives verbal OK to ship rest of debris in yard EXCEPT for large yellow rail car. Needs side bottom surveyed. CL says have RCT McIlroskey or Leroy to sign orange sticker w/ "per verbal approval by Craig Lyons".

20 0930 RCT Mike Leroy calls CL to confirm, then signs orange sticker.

0945 Ironworkers on remaining NE bay door (SE) other NE bay door (NW) is already down, was ~~removed~~ prior to field work moved to pond.

(4:11 PM)

25 1000 SE half of ~~NE~~ NE Bay Door is now down. Workers removing NW fence

1100 Fallen half (NE) of SE Bay Door moved to yard, crew on SW half of SE Bay

1135 Mike Floyd visits (armed geologist)

1150 Pennington points out phone is dead.

phone line up
1240 - satellite phone works

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60605 Made in USA

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-12

- 1245 RSL Videographer arrives, gets G.A. safety briefing (Rick Smith)
- 1300 Laborers still coming out doors. Transport prep to move last bay doors [out]
- Rick Smith sets up camera / moves on forward
- 1350 Rick Smith videos removal of last bay door (now door of SW bay opening)
- Forklift moves spill pallets then loads debris onto lowboy
- pallets of ^{unlabeled} barbed wire, sockets of rust by bolts & nuts, cable
- Yesterday's ~~load~~ ^{load} 10 tons
- Today's ~~load~~ ^{load} 10 tons
- Residual palletized debris 10 tons
- 1415 Humphrey, Stephen, Phil, Ralphs arrive, get safety
- From ECR
- 1505 mark size in Harry large alum platform loaded on lowboy
- 1515 Harry, Stephen, Phil depart. Final brief. Television starts
- 1550 Loading of large aluminum platform (11,000), six large hydraulic
pumpers, and pallets of buckets containing large bolts and
debris leaves site w/ orange stickers
- 1625 depart RMLD

SIGNATURE

/s/ Signature on file

DATE 5/25/2001

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

G-13

THURSDAY
24 MAY 2001

PROJECT NO.

BOOK NO.

0750 arrive @ ROAD

Mike LeRoy

Randy Summers - Safety

0820 Robert Braunstein leads Safety Briefing

Mike Vandillem

Dennis Milligan - Lab

• heat stress 101/80 d^W/wet yesterday

Robert Braunstein

Johnny Brooks - Lab

break 15 min / 2-hr work

Tommy Gomez

John Pennington - Sup

• uneven ground • hearing protection

Bob Rummel

• emerg. horn ^{be work, unsafe condition} ~~at~~ assembly point

Bohdy Dolens - Oper.

• holes in ground where fence posts removed

Denny Selegui - Oper.

JP - PWR

• pinch points - ^{loading} fencing • emerg. equip. • sharp objects

Morris Guice - Labor

Plan of Day: continue setup, move out debris

Jessie Manje - Iron

10

one work package today

Roger Wolfley - Iron

fixating, eye wash, first aid kit

Jack Ross - Team

6/4 - asbes. & soil - respirators

Bud Seavers - Lab

Dave (Cranovich) - Iron

15

0840 loading debris onto Jack's lowboy

frames - steel, wood. Fencing, ^{burnt-up} wood panels

Need

0850 Review outstanding action items

Next week

Poly bottles

20

Got paperwork for 3rd @ UIC Lowboy

Download pics

(1st load for today) has orange sticker

Signage - HAZ waste Area

Initialed by MVD per C. Lyons

- HW Area

Craig Lyons - areas for LLW
larger areas for UIC

The schedule for next week (week #2) is:

25

• Remove bay doors (done in week 1) and volume reduce (need to sample first)

• Drain and sample all fluids

• Remove all Rad-impacted items (panels, piping, equipment, etc)

Week 3 will be remove rad soil and begin removing ACMs

SCIENTIFIC SMELTERY PRODUCTIONS CHICAGO 88888 Made in USA

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

4-14

- Possible liquids to be drained & collected in Week 2 Analyze
- Waste Item # 1 Oil from air compressor and door dampers Chlor-Detect
- Waste Item # 2 Oil from overhead crane PCB, Gamma, Chlor-Detect
- Waste Item # 5 Antifreeze from air compressor Haz - Arsenic Total VOC and SVOC

1030 15005 team in S. corner yard of Decon facility.

- 1100 Jack Ross takes low boy w/ first load of the day (3rd overall)
steel & wood frames, built up wood forms, ^{110 gal} air tank, metal debris, fence
Has load from orange sticker.

1127 Mike Withers & Mike LeRoy report a new egg (unseen before today).

1200 orange (framed) end-dump arrives Don Oakley

15-

1240 loading end dump w/ (large loader. Wood frames & debris, metal debris ^{steel, re-bar} barbed wire coil
rubber belts, rope, fence post, pipes ^{work benches, ladders} trash cans (20-30 gal) ^{metal} debris
pipe rack fence posts w/ concrete footings

20 1315 Gina Cook on site

Questions for

Harvey Perry

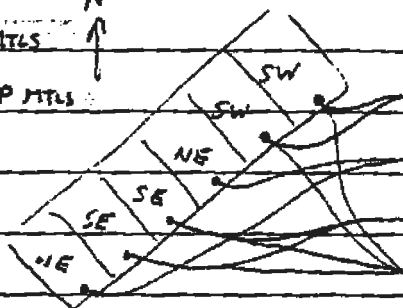
1330 End-dump load # 2 departs site (UIC closed @ 2³⁰ p)

- ① SW Pad Sediments
LLW. Can't we just
combine w/ MW
sediments & soil?
- ② Need to sample 10ft
floor & insulation ASA
to avoid delay S.

WOOD SAMPLE SE BAY DOOR TELP HTLS

INSUL SAMPLE SE & SW BAY DOOR TELP HTLS

BAY DOORS NOW LINED UP
IN YARD



*16 MW wood

*11 MW wood

*13 MW (TELP HTLS) wood

*12 MW (TELP HTLS) Insul.

TUESDAY
MAY 29, 2001

Corrus Dbi (TL)

0730 Mandatory ER staff mtg in Rm 111 large conf. rm.

Robert Braunstein (S)

0915 arrive @ RMAD 1000 - safety briefing • test emergency evac. procedure

Graeme (S)

1015: Pennington: continue mob's PTHR • support zone - eat, drink

Jim McCloskey (RET)

• heat stress, fluids, shelter

• ez - drink @ hotline after

Mike Lamy (RET)

• pinch prunes, trips, sharp obj.

RCT survey

Mike VanDillen (RET)

• thermal burns, metal in sun

• fire extinguishers

Dan Koeller (RET)

• emerg. equipment (eye wash)

Mike Withers (RET)

• airborne particles

Jessie Cinnos (RET)

• hearing protection wr. equip.

Morris Guice (L)

• PPE - level 3

Larry Haywood (L)

Jared Long (WT)

Telephone works set up phones

Jessie Manje (W)

BN/ER RMAD VOX 5-0867

Roger Wolfley (W)

FAX 5-0873

Daniel Solares (W)

Jack Ross (T)

Norm ~~John~~ Conduct evacuation test before lunch

Don Oakley (T)

A. Walter Seaver (ACM)

1300 Load up flat bed semi-trailer with
more debris, fence posts w/ 2' conc. footings

20 1337 Jack Ross leaves w/ flatbed w/ 9 posts for UIC.

Pennington asks what's up w/ ISOs on Yellow Trailer.

Patrick Morris says RCTs can operate ISOs, Pat will analyze data.

RCTs say fine but where is laptop computer? Patrick thinks
it is in Mercury. Can't reach Dudley, lv. msg.

4-8' Fluorescent bulbs in office 32' large incandescent bulb.

4 large incandescent bulbs in change room in bag

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

1-11

WITNESS

DATE

TITLE

5/29/2001 Continued

PROJECT NO.

93

Work continued from Page

BOOK NO.

cast 14 + 2 faded yellow overpack drums

13 new open top 55-gal drums

west 3 faded yellow overpack drums

59 old "GROUT ONI" 55-gal drums (open top, a few bungs)

2 new open top 55-gal drums

1354 loading wood frames and pallets of wood boxes containing

heavy cable into Don Oakley's end dump

1410 Don Oakley leaves w/ end dump for UIC

12 black burrito sacks

6 black plastic drums 55 gal w/ open top and bungs

Labors move there to area w/ 6 B-25s, high up hill.

1510 all phones are down.

1555 3-5 empty drum are signs

1555 phones up again

SCIENTIFIC SINDERT PRODUCTIONS CHICAGO 60606 Made in USA

Work continued to Page

SIGNATURE

DATE

SELOED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

1-17

WEDNESDAY
MAY 30, 2001

Gina Cook Joan Pennington (5)

Mike Vandusen Dennis Flanagan (5)

0845 arrive @ RMAN, safety briefing in progress

Johnny Brooks (4)

David Milligan (4)

Plan of day. Drain fluids, set up scaffolding

Jessie Monje (4)

begin removing rad seams

Larry Hayward (4)

Daniel Solagui (4)

Joel, Bob, Remond, Craig Lyons, how

Joel McMillin (4)

Greg Doyle, here for 113 status mtg

white owl visits bay, leaves

10 1015 prep to drain air compressor oil

1050 have collected about a gallon of motor oil from compressor, still draining slowly

begin loading end dump (Don Oakley) w/ wood frames, wood debris,
wood boxes and pallets w/ cable, steel conduit and piping

1105 Joel McMillan and Jessie Monje take manlift to check crane gearbox for oil

1112 Draining oil from overhead crane gearbox

1124 Approx 2 gals drained from overhead crane ^{drum} host motor (larger)will now drain oil from carriage motors (smaller) and ^{indies}

1143 approx 2 l. of oil drained from

20 trolley motor (into bucket + spill pad)



Pipe fitter Joel McMillan reported no remaining air compressor antifreeze/coolant

1230 Don Oakley takes end-dump w/ debris to U10c

15 1308 Joel reports carriage motor had no oil; dry

Joel and Jessie report the 2 door dampers are spring loaded
only, have no oil.need drum wrench, spill kit supplies, duct tape
post-its, Planned list of waste containers

Work continued to Page

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY

need to mark excavation areas

DATE 5-18

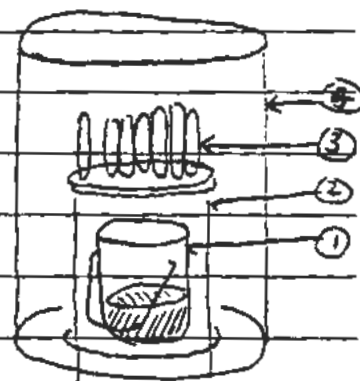
WITNESS

DATE

DATE

1400 Create drum for oil "CAU 254 OILS"

Container 1 - Open Top 5 gal plastic bucket
containing approx. 2 gal. oil from
overhead crane HOIST motor



Container 2 - Closed top 15 gal plastic drum
contains open-top container 1.

Container 3 - Six 1-liter poly bottles (screw caps)
containing approx. 6 liters oil from
air compressor oil

- One 1-liter poly bottle (screw cap)
containing approx 0.4 liters oil from
overhead crane TROLLEY motor

Container 4 - New closed top (removable lid) 55-gal drum.
contains containers 1, 2, and 3.

1450 Joel reports water coming out of loosen piping, fresh water inlet.

Jessie (IW) and Larry (L) are removing bulbs

Quite a bit of water stored in tank and piping

25 1515 Joel loosening pipes, David preps for Acmtavirus, John leaves for manpower

1520 Denis Gustafson, Wayne Johnson, Stephanie Musick, Steve Nacht arrive

1910 return to Dunn C

IDENTIFIC BUREAU PRODUCTIONS CHICAGO 60081 Made in USA

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

7-19

WITNESS

DATE

THURSDAY
MAY 31, 2001

0645 arrive e form, download pictures

0805 arrive e RMA.

Today: hantaviruses, scaffolding, move ^{empty} waste containersMonday: set up hot line, CA, haz, respirators, move ETR red shower tank -
rad items & soil, asbestos

OR Danko, Mike LeRoy, Nita Van Dillen, Mike Withers, Jessie Cienaros

John Pennington (s), David Milligan (L), Johnny Brooks (L) Daniel

Curtis Oly, Robert Brownstein

Siqueira (o)

0850-Brownstein (heat stress monitoring, unloading ground for manlift, fall protection,
Safety Brief) fire extinguishers - make sure current, snakesPennington - manlift, fall protection, egress, hantaviruses, ducting modification
generator, scaffolding

2 B-25s and 2 55-gal drums to be moved into future CA (SW side)

B-25s for Rad-impacted rooms (pipes, panel boxes, etc)

55-gal drum for mixed - Rad Pipes w/ lead packing

- Rad pipes w/ asbestos

• Ask Craig Lyons: repaint excav. areas?

0945 Bisley est Paul Groser arrives, gets Brownstein safety briefing

1005 open SW end of owl ducting, no owls or nest. There is an old
bird skeleton possibly ~~on~~ a baby owl in the low area immediately
above the vent to the change room.25 Active nest is occupied, 1 larger and 1 younger hatchlings
at least. No egg seen but larger bird may be concealing egg.

1020 Sounds like more owls in the NE end of ducting

1025 Possibly 3 more. I see 4 small downy hatchlings (nestlings)

SCIENTIFIC BODERY PRODUCTIONS CHICAGO 80065 Made in USA

→ 1 is dead

Work continued to Page

SIGNATURE

harry-scales for B-25 tone art? who is WCO and when

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE 5-20

WITNESS

will be held

DATE

Work continued from Page _____

BOOK NO.

hatching - just hatched

#187064

nestling - sitting in nest

#98-2798

fledging - first flight

✓ #98-2463 731# tone

#187059

~1100 Call Dennis G., need to ask Harry

#187078

under what work do WCDs need

✓ #98-2775 720# tone

to be inside CA? and on bioassay.

1115 Call Harry P. and Jerel N. lv mssg re. getting tare wts for
4 of the 6 B-25's

1120 John P. leaves for mtg at DAF. Daniel S. in charge.

1170 Robert Brovastein leaves for call 113 PreRead/Review. Gina Cook arrives

1145 Don Oakley arrives w/ generator on flat bed - no scaffolding

1300 Harry Perry and Stephan Duke arrive, discuss work

We determine that WCD should be able to adequately witness waste
being placed in containers from outside contamination area.HP and SD feel same way samples should not need bioassay if in
CA for less than 6 hrs. However if so, we would only need two or three under
bioassay. Also, will Mike Withers be available for soil sampling?

1352 Jack Ross and Frank Eck deliver EIR sign on wheels

John Pennington was under the
impression that only the green
marked items in bag were
low or HAZ. Was planning for
workers to be out of respirators for
the rest.

Things to do before creating CA: ① sidewalkover to remove prohibited materials

② remark road areas for excavation fluorescent

Bag of incandescent bulbs

1547 Jessie Cisneros says workers have bag of PPE and bag of hantavirus cleanup waste

It is NOT road. Normal procedure for waste not-from-a-CA is to dump it in the trash.

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 88888 MADE IN USA

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

G-24

B 200 PH ©

MONDAY
JUNE 4, 01

0800 arrive @ RWRD (cool, clear, v. strong north wind)

setup scaffolding, remove rad items, rad-arbestos WP not yet in place (J. McIlroy)

0815 R. Brounstein leads safety briefing

Wind - scaffolding, dust, RWP in effect, full face w/ PAPR? - will check - no

5 H. Perry leads prohibited materials (~~paper~~ & rad waste tracking discussion)

obj & RTs need to sign procedure

PROHIBITED MATERIALS

* Hazardous wastes (lead seals)

* Free liquids

* Compressed Gases (^{fire extinguishers} aerosol cans)

10 Issue: don't have Rad-ACM WP done.

Excessive Particulates (dust)

J. McI says CL is coming out today.

Etiological Agents (medical waste)

Have Rad Item - only WP in hand.

Chelating Agents (EDTA)

Explosives (TNT, R-4)

0850 John Pennington leads PTHR

* PCBs (ballasts, transformers)

15 Today's WP: Type II w/ JHA

Removal & Disposal of Rad-impacted items

Curtis (TL)

John Pennington (S)

Level C, eye protection, fall protection

Roni Brounstein (S)

Johnny Brooks (L)

lifting haz, bio haz (insects, rodents)

Harry Perry (WM)

David Milligan (L)

No lock out/tag out = excavation

Phil Ralphs (WCD)

Jessie Munje (W)

20 Sharp objects, fire extinguisher, eye wash

Jim McIlroy (R)

Roger Wolfley (W)

crew does site walk down

Jessie (S) (R)

Daniel Salazar (O)

Mike VanDillen (R)

Jim Fisher (O)

0953 Jessie Cisneros discusses RWP

Dan Koelker (R)

Joel McMillan (P)

will do sampling to confirm no

Mike Withers (R)

Randy Riles

25 respirator needed,

Steve Fotherman

Lee Romeo (C)

Stephen Duke

Dean Fore (C)

Rick Farberman (C)

Shannon Persons

Dennis G. Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

G-22

1015 move 9 cans to waste area (NOW-HW)

*1 "LED-PLATE Anti-Seize Compound No. 250" Armite Laboratories LA, CA 90001 U.S.A. 1

*2 unknown, no label, white paste, almost full

*3 "GE Long-Life Grease" almost empty "... motors and generators"

*4 no label can w/ brush in hole in lid, probably soldering flux

*5 "A Pure Metallic Lead Base for Maintenance and Assembly, HIGH TEMP

looks like grease translucent amber, 4-5 full

there are also 9 lead bricks the RCT's said were clean

1018 Side dumps arrive (n=4)

u 1A2/X400/S41A2/Y1.8/150

n USA/GRC14/33900/1

1040 move 2 B-25's to ^{west} pad 98 2771 (w) 98 2798 (e) and 4 drums
55-gal open top

Harry Perry, Stephen Duke, Phil Ralphs, Steve Atkinson leave

1045 4x8 wood boxes arrive (2) and another stairway and scaffold.

20 1050 IT shows up (2) in pickup looking for "AN 262 CHS 23-05-06" decom pan
Robert Brownstein leads them around.

1120 Craig Lyons arrives, has open proc for shot blast.

25 13¹⁵ Shannon Parsons & Dennis Gustafson visit. ~~at~~ Green - need to
sample unknown can (white paste) PCB out of service DATE 6/4/01

PCB ballasts - one removed from each fixture in "office". 8.11.01.01

CREATE 15 gal "blat waste" drum w/ 5 gal bucket of 4 sm. can:

SCIENTIFIC BINARY PRODUCTIONS CHICAGO, ILLINOIS Made in USA

layle & place ballasts in "CHS 234 oils" drum Work continued to Page _____

SIGNATURE

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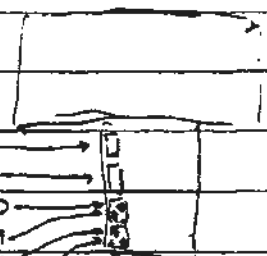
WITNESS

DATE

6-23

1615 Shannon & Dennis depart

Mike V-D places red stickers
on yellow rail car. No other signage needed



982798
982771
01M010
01M019
01M018
01M017

1646 Fred Breit personnel drop by

Scaffolding up on SW side but Harry says carpenters are waiting for steel planks

Workers discussing lack of need for respirators (NOT IN RWP) ^{RWP} should have
given option

1500 - Flatbed arrives w/ 2 more transite boxes, 1 larger box for AST

1515 - Ron R. Co (ACR) ~~suit up~~ David Milligan, Johnny Brooks, Joel McMillen
suit up

1530 - crew enters CA. Will remove red items not attached to transite.

1608 crew leaves CA

1615 obi departs RWP

TITLE

Work continued from Page _____

TUESDAY
JUNE 5, 2001

PROJECT NO.

BOOK NO.

101

0810 arrive @ RMAD, safety briefing

today: remove rad items, even attached to transite (Pennington)

WP: 173 Type II / JHA - remove rad items

203 Type III / PTHR - remove electrical panels + conduit

next week ISMS audit

John Pennington

Joel McMillen (pipefitter) - place pinnets, slip trip falls,

John Pennington (P)

lifting, sharp objects, ho

Joel McMillen (P)

rigging, wearing protection

Curtis Osi (TL)

Ron Ricco (Asst)

Robert Branstetter (Subj)

David Milligan (E)

Harry Perry (LM)

Roger Wildflay (LM)

Phil Ralphs (LM)

Jessie G. News (RT)

Jessie Monje (LM)

Mike Vandillen (RT)

0900 Crew setting up for CA entry

Johnny Brooks (E)

Daniel Salegui (E)

Stephen Duke (WT)

Sidedumps

Jim Fisher (E)

Adam Don Grant (LM)

Red - no plates

Maroon - 267 LOT (ND)

Gray - 30326 (ND)

Gray - T108599 (ND)

1000 Electricians finally arrive. Laborers + Fisher already made beam.

1010 Joel gets particle in eye washed out, 1030 Joel feels better but goes to Pennington

1037 Gina Cook is here, says she is going to take Joel to Medical to get eye checked.

1048 Open B-25 #982798 (close to bldg.) MIXED WASTE

load in misc. piping (some with fiberglass insulation), valves, motorized valve, pressure gauge

ENTRIC BENDERY PRODUCTIONS CHICAGO 88888 Made in USA

begin making leaded pipe joint pile.

Work continued to Page _____

SIGNATURE

DATE

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DATE

6-25

WITNESS

DATE

Work continued from Page _____

1110 Harry Perry, Stephen Duke, Phil Relphs, Adam Oae Gorn leave for lunch
 1115 Crew in CA begins to exit.

1400 quit for day, CA crew doffs. B-25 is $\frac{1}{3}$ full.

5

1410 Pennington leads daily debriefing

Joel - removal of BAD-impacted items

Harry - Packaging went just fine

Ponticle in eye

Fire - smoldering brush, put out by fire watch

10

Prefilter extension cord needs cover plate

returned 6/4/01 dry chain fire extinguisher to fire dept. for
 inspection and seal. Was ^{also} issued a water pressurized fire
 extinguisher (#44-236743) that was last pressure tested
 in March 96 (according to sticker). [date of date if 5 yr. span?]

15

20

25

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

6-26

WITNESS

DATE

TITLE

Work continued from Page _____

WEDNESDAY
JUNE 6, 2001

PROJECT NO.

BOOK NO.

103

0600 arrive dorm c.

Jan Pennington

0808 Scope of Work (Pennington): continue with

Jim Fisher

WP 173 removal of rad items (type II) - piping, non-asbestos below 8'

Jessie Monje

X WP 203 removal of electrical panels, volume reduce (type III)

David Miller

asbestos

Johnny Brooks

346 trailers - painters

Roger Wolfley

Ronald Ricci

no respirators till WP 171 -

Joel McMillan

1 remove stairs to access wall below loft?

0817 Ginalook - CA/EZ no smoke, eat, drink

Rick Smith (es)

except at hot line after Rad survey.

Gina Cook

Canopy for breaks inside CA/EZ

Mike Venn Diller

Level C in CA/EZ, Level D in support zone

Jessie Cisneros

Heat stress - fluids, cool area, eyewash, fire exting.

Heavy equipment - fall protection, hearing

manlift

protection, line of sight w/ operator

hydrocrane

forklift?

25 ~~★~~ Lead in paint? - yes it: pipe, door, walls

Phil Rolphs

PTMR - Ruger leads hot work, sharps, fire watch

Stephan Drake

noise, heat, rigging, face shield & torch

Angie Ray

Level D, fall protection.

25 hantavirus cleanup in panel box near loft stairs

~~★~~ no respirators in despite removing rad? Looks wrong.

GENERIC SAFETY PRODUCTIONS CHICAGO 2000 Made in USA

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

6-27

WITNESS

DATE

TITLE

Work continued from Page _____

6/6/2001 continued

PROJECT NO.

BOOK NO.

0930 Craig Lyons returns call:

He can defend removal of rad-impacted items (not directly citing rad area)

However, lead issue was addressed in SSHAAP but not in JHAP.

Per Craig Lyons, we will don respirators for all work in CA

Good working on asbestos bags

0920 Jim McCluskey leads safety briefing at red van.

respirators will cover any concerns with rad, lead, asbestos

Craig Lyons says our designation of MW for waste characterization purposes does not necessarily mean all waste is impacted for HRS purposes.

Removing more piping and other items from bag. B-25 about 2/5 full

1240 crew begins donning PPE Level C

Laborer David Milligan, Johnny Bruders

Pipefitter Joel McMillen

1350 Dennis G. arrives Craig Lyons

Asbestos Ronald Rice

Turbulator tank removed

RLT Mike VanDillen

from bldg.

Operator Jim Fisher

Ironworker Jessie Munje

Discuss w/ Craig Lyons

Iron worker Roger Wolberg

Make soil CA, dump rad can, screen debris and soil

remove rails ^{swamp} and ties (MW), begin soil removal by screen.

Asbestos/rad pipe elbows into west drum, 01 MOLT drum

Angie Ray brings out Pb-xray gauge, confirming

1440 Dennis departs, crew takes break

fuel truck

1500 crew removes hood from bldg 1510 remove desk

SCIENTIFIC BIRDY PRODUCTIONS CHICAGO 4066 Made in USA

Work continued to Page _____

SIGNATURE

DATE

WITNESSED BY AND UNDERSTOOD BY

DATE 6-28

WITNESS

DATE

TITLE

Work continued from Page _____

5/6/2001 continued

PROJECT NO.

BOOK NO.

105

1555 crew exits CA.

1615 Daily debrief:

ok for asbestos?

order hoodie & foot

what went right: progress! breathable t-shirt and XXXL 4X

wrong: asbestos workers

62AS

ladder broke

some previously broken transite wall board behind

panels. using water & towel worked well.

SCIENTIFIC IMAGERY PRODUCTIONS CHICAGO 08001 Made in USA

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE 6-29

WITNESS

DATE

TITLE

Work continued from Page _____

6/7/2001 continued

PROJECT NO.

BOOK NO.

107

1230 Crew working on NW removing stairs. To be removed by belted piping and asbestos workers removing asbestos.

1335 Placing desk into second B-25 1400 stairs down and out.

break time Craig

remove more rad-impacted items

1530 workers coming out of U/E2 for the day.

1600 Daily de-brief.

Good - porta-shade, waste removed as planned,
no fires, hazards mitigated

Need taller ladder.

GENERIC BINDERY PRODUCTIONS CHICAGO 8086 Made in USA

Work continued to Page _____

SI	LATURE	DATE
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	6-31	

108 TITLE

Monday
June 11, 2001

PROJECT NO.

BOOK NO.

Work continued from Page _____

Work in a CA

John Pennington (5)

0800 Braunstein 5 15M Amersbach Lead exposure assessments
work Packages ACH removal

① Robert Braunstein

David Miligan (L)

0810 Pennington: Toolbox safety topics: post-job critique (9/20)

② Mike VanDillen

Johnny Brooks (L)

pressure switches, aerial work platforms

③ Jessie Cameros

Roger Wolfley (10)

Jed McMillan (2)

Jessie Staje (10)

5 WP 173 Removal of rad-impacted items

④ Curtis Obi

Larry Hayward (L)

WP 171 Removal of asbestos

Don Oakley (1)

Ronald Risco (1)

Dean Fort (1)

Daniel Salas (1)

Bud leads WP 171 PTHR

Ron Fairbanks (1)

Jim Fisher (1)

Doris leads WP 173 PTHR

Phil Ralphs (10)

Bud Seaverson (10)

10

Victor Ramirez (2)

Still some confusion re: CA and respirators. Conference call w/ Gustafson Lyons, Nelson,

Resolve: ① RWP respirators whenever cutting on green metal or RR steel or elbows.

② ACH respirators when cutting non-green elbows (NOT a rad issue)

③ one green gone, NO respirators when removing transite wall board

15

~1000 continue removing rad-items (all piping & boards below, green-items above 8')

1030 Computers have all scaffolding planks installed, non worker can't go in (+

1043 Don Oakley takes water truck around bldg. because no more RAPPs

1050 Phil Ralphs arrives

1055 Jim Fisher takes forklift to dump rail car over rad-soil area

20

1100 rail car contents dumped out in 254 yard (N). will move up an empty storage area
and tipped over

④ approx 1 cy of chairs, plywood and

1130 crew comes out trash bags w/ wood debris and

1200 Gina Cook arrives w/ Craig Lyons clean bags w/ surgical gloves trash (20)

Larry Hatcher + Adam Daegron Mike Withers will ISO rail car after lunch

25

1230 meeting WP Type II trailer skill of craft

WP 171 Type II asbestos JHA's

WP 173 II rad-items JHA's

II scaffolding JHA's

Work continued to Page _____

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 68628 Made in USA

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DATE 6-32

WITNESS

DATE

TITLE

6/11/2001 continued

PROJECT NO.

109

BOOK NO.

Work continued from Page _____

- 1245 Bob Skier is here, discusses asbestos
- 1315 Bob Skier leads lead awareness lead
- (will laterers work w/ lead more than 30 days/year? inc. ACM 113)
- Pb standard PERMISSIBLE EXPOSURE LIMIT (PEL)
- 50 $\mu\text{g}/\text{m}^3$ for 8 hr. period
- > 8hrs 400 μg / 4 hours worked
- Action Level 30 $\mu\text{g}/\text{m}^3$ - triggers PPE + other controls
- 1400 Jim McCloskey + Mike Withers remove a small volume of waste
- and the yellow mock can clean. (waste into 25V HW)
- 1410 Harry Perry and Larry Hatcher depart, Bob Skier departs
- ISM's inspection planned for 4 p.
- 15 1600 ISM's crew arrives William Hicks John Kit
- 1625 David Milligan leads Post job ^{do-} briefing - rad-items
- good - continued removing rad-impacted items
- bad - wires on cut pipe snag band saw - remove first from panel
- 20 -- need more band saw blades and extension cords
- 1630 Bud Severson leads - asbestos Bud, Joel, Ron
- bad - cut power cord w/ band saw (GFI shut it down properly)
- bad - man lift & jib boom did not work, re-positioned
- 20 - need to take bucket to hold tools and bags
- good - continued removing ACM waste, properly placed in waste containers
- 1635 - Rich Fairbanks & Dean strapping down trailer

SCIENTIFIC BAKERY PRODUCTIONS CHICAGO 60606 Made in USA

Work continued to Page _____

SIGNATURE

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WITNESS

DATE

6-33

TUESDAY
JUNE 12, 2001

Curtis D'bi (TL)

Robert Braunstein (S)

Mike Vandillen (R)

Harry Perry (WR)

Terry Sonnenburg (WR)

Phil Ralphs (WR)

Jessie Cisneros (R)

Gina Cook (S)

0830 Scope of Work For Today

- continue setup of construction trailers
- continue removal of road-impacted items
- continue removal of asbestos items

Will dig out rails, cut rails, lift out rails and cross ties

Ronald Riccio leads discussion of WP121 asbestos PTHR

John Pennington (S)

Roger Wolfley leads discussion of WP173 rad items

Roger Wolfley (WR)

Jessie Manje (WR)

Hotwork permit, sharps, hot/cold surfaces,

Larry Hayward (L)

fire watch, heat stress (fluids, breakers)

Johnny Brooks (L)

manlift, fall protection, power tools,

Victor Ramirez (L)

rigging

David Millipenn (L)

Will probably not remove transite today

Danny Selegui (O)

May remove soil today

Ronald Riccio (AS)

Need more PAPRS (have 9)

Bud Seawenson (NR)

Need more chairs to dress out

Joel McMillon (PF)

Will wet rail area before extending CA

Jim Fisher (O)

Morris Guile (L)

Don Oakley (T)

0830 Show Terry Sonnenburg sampling locations

NE Sump Soil (TCLP Metals)

*WCD100002001

6/14/01
09:00

Hoist oils (hoist & trolley combined)

*WCD100001901

6/11/01
10:006/14/01
18 locations

Bay Doors SE wood insulation

*WCD100002201

*WCD100002101

SW insulation

*WCD100002301

6/11/01

Loft floor spilt

*WCD100002401-03

Huer other

*WCD100002501-03

Work continued to Page _____

SIGNATURE

Walter Insulation

*WCD100002601-03

DATE

TITLE

(6/12/2001 continued)

PROJECT NO.

111

BOOK NO.

Work continued from Page _____

- 0900 Doo Oakley water down rail area for dust & fire prevention
- 0930 CA extended 80' at Bldg. begin cutting rails and digging to expose rail area
- 1040 rails & ties removed. Pennington arrives (9 cross ties)
- 1120 Begin removing first 2 B-25 boxes from area. 1125 second B-25 out
- 1130 More 2 empties to pad
- 1145 Crew begins to exit CA, forklift continues shifting containers and
- 300 swipes from vent hood and turbulator acid tank are clean.
- 1355 Cutting up rails to fit B-25 as MW (w/ cross ties, etc)
- Removing work bench shelves from office (MW)
- 14 Moving forklift out of CA, Mike VD surveys for rad.
- 1425 cut up RR rails go into B-25
- 1435 break
- 1505 2 drums full of asbestos red elbows, 3rd B-25 is full too. 4th drum filled

15

20

25

SCIENTIFIC BAKERY PRODUCTIONS CHICAGO ILLINOIS Made in USA

Work continued to Page _____

SIGNATURE

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WITNESS

DATE

6-35

WEDNESDAY
13 JUNE 2001

0735 arrive @ RUAD

Strong NW wind, clear, sunny, cool

Curtis Dibi (TL)

John Pennington (FS)

Mike Van Dillen (R) Joel McMillen (PF)

Rad-impacted item removal - should finish today

Jessie Cisneros (R) Ronald Rocco (AW)

Vent lines - should finish today

Gina Cook (SH) Jessie Monge (IW)

5

Dankoelke (R) Daniel Solagui (CP)

Pennington - Continue removing rad+asbestos items

Phil Ralphs (WCO) Victor Ramirez (L)

Start removing transite wallboard panels

Rick Smith Roger Wolfley (IW)

When all green removed, will survey

Dennis Josten David Milligan (L)

area and deposit CA with them

Larry Hatcher Bud Soarsen (AW)

10

^{more}
set up hotline to soil entrance/exit

Dwayne Picket Johnny Brooks (L)

First lead balls, may stage sidelump for burrito

Morris Guice (L)

Cook - inspect heavy equipment and tools

Larry Hayward (L)

hearing protection, Level D on, Level C in

Don Oakley (T)

heat stress - fluids, cool down

Jim Fisher (CP)

15

wind hazard - will water if excurate

fire hazards - moisture hoods

command post

report all injuries, ask questions

RWP 13 - remove rad items

20

RWP 11 - cut rad items

WP 171 removal of asbestos PTHR (Joel)

WP 173 removal of rad items PTHR (Roger)

25

0900 call Dennis, let him know of crew size

Harry and Phil collect more insulation sample from bay doors

Morris and Victor break leaded-bell vent pipe from below 8'
 one piece of lead is hot, is kept separate, ^{and be placed w/ rad lead bricks} Rest of lead is clean. Pipe into MW B-2S.
 Jessie Cisneros ask workers to get him some pipe from above 8' from different areas
 will check for Rad before depositing bay as CA.

Moved 2 B-2Ss up to MW accumulation area, will post/sticker as needed

Almost done removing rad items, began removing transite

1200 Lunch

Mcloskey says leaded bells still a concern. A previously non-green piece
 contained lead that proved to be hot. Therefore other bells above 8'
 maybe hot. Decide to ^{remove pipe today, but do not crack & remove lead} leave until after depositing, ^{or then do so w/ RCT}
 If rad, then may have to repost CA at that time.

1225 Prep to package RR cross ties (0.010 plastic), moved to MW
 Waste Area

1310 Harry leaves, Larry Hatcher filling in as WM, Phil still here too.
 Forklift f Jim Fisher moves lift stairway out of CA for wrapping as MW.

450 HW and MW and LLW accumulation areas posted for
 rad and haz waste.

MW area contains RR ties, bay-lift stairs, and 2 B-2Ss

Turbulator acid bath is hot so will ~~put up~~ place on pallets and wrap ⁱⁿ plastic

1540 Dwayne is here 16:10 all visible belled vent pipe removed, ^{burrito laid} out inside.

1615 Post job daily debrief.

THURSDAY
14 JUNE 2001

0740 arrive @ RMAA

Curtis Abi (TL) John Pennington (S)

Gina Cook (S) Roger Wolfley (TW)

Jessie Cisneros (R) Jessie Monge (TW)

172 - removal of rad-soil

Harry Perry (W) Daniel Seligri (O)

5 1 - removal of asbestos

Mike Vandillen (R) David Mulligan (L)

Morris Gurta (L)

• will send in one letter under RWPID (no response)

Stephen Duke (W) Victor Ramirez (L)

to move tools out to pad to survey for deposit.

Adam Daalman (W) Bud Seeverson (A)

• RCTs need big manlift (80-ft) for can 113 for

Cory Lyons Don Oakley (T)

10 today, maybe Monday as well

Dwanna Picket Joel McMillen (P)

• Setup rad-soil hotline

Ronald Riccio (A)

Bobby Dolans (O)

0815 Gina

(Heavy Work - Forklift, manlift loader, truck

eye contact w/operator, follow postings

15 support zone, no smoking or eating, drinking

cool, windy. Dust control, avoidance (around)

scaffolding safety, only essential personnel

Report all accidents, injuries to super + SHSO

20 0820 John Pennington - Harry Perry - Soil sampling every 3rd load scoop for
a composite sample representing each side-dump

PTHR - David Mulligan for soil removal Type II WP

PTHR - Roger Wolfley for rad-item removal Type II WP

PTHR - Ronald Riccio for asbestos removal

25

1030 - RCTs deposit rad-item CA (bay and SW pad yard)

1130 Ready to move 3rd and 4th B-25s to HWA and 3 drums of rad-alkalis
to MW accumulation area Work continued to Page _____

SIGNATURE

also, plastic-wrapped trolley motor assembly.

DATE

- 1140 Don Oakley arrives w/ contractor w/ foldable mirrors
- 1305 Craig Lyons & Dwayne Pickett arrive
- Water truck makes final pass into ^{red} soil area
- Laborers erect T-post yellow fence around bay doors
- 1320 Crew goes over Plan & PTHR for soil removal (RWP #12)
- Sampling Procedure for Harry.
- 1400^{est} Prep. to remove air compressor, close radiator valves, blue-green antifreeze (clean) comes out. collect in 15 gal drum.
- Roger estimates 4 gals coolant
- 1410 Phil Ralphs & WM personnel mention that we should tarp filled side dumps as water
- 1415 Begin removing soil at SE end (RR) of bldg. and LLW don't mix
- ISSUE: soil excavation requires water truck but loader ready to fill burritos but Transster needs to stay in cab in C.A. Only one team here.
- 1455 Bud and Ron in manlift removing non-red asbestos elbows
- Joel removing transite wall board, almost done removing in bay, boards not yet placed in plastic-lined boxes
- Bobby operating big loader @ SE end (RR) of bldg.
- 20 David shovels soil adjacent to foundation, Montis on hose, Don is with the Mike V-D checks for hot spots.
- Daniel waits to operate small tractor.
- Stephan, Harry, Adam, and Phil seal up 3rd & 4th B-25s in MWacuum. ans
- They're all too because they thought burritos were going to be filled.
- 25 1540 End for day Soil at SE end of bldg:
- None loaded into burritos, stockpiled, wetted down.
- All transite in bay removed except for strip just below loft
- Elbows-in bay: $\frac{1}{2}$ done, probably need two days. Not Monday
- because transite board will be loaded into boxes. Work continued to Page _____

MONDAY
18 JUNE 2001

0545 Arrive @ dorm C

Curtis Ob. (TL) John Pennington (F)

0745 Pennington

Robert Brumach (E) Dave Milligan (L)

Tool Box GSA vendor, gardening purchases,

Jessie Cisneros (R) Morris Gude (L)

Carbon Monoxide

Mike van Dillen (R) Victor Ramirez (L)

5 0757 Brumach

Harry Perry (WS) Johnny Brooks (L)

Asbestos (respirator protection not needed to
remove wallboard), removal of lead from

Phil Ralpine (WS) Joel McMillen (PF)

pipe walls (respirators will be required)

Rick Smith (RL) Rod Seaworth (AS)

Wind-hazard on scaffolding

Don Oakley (P) Ronald Reeco (A)

William Hodge (T) Bobby Dolans (O)

10

Craig Lyons (P) Mike Lohrey (R)

Remove all wallboard in bays and lead into boxes. Then continue removing
asbestos elbows

Continue removing rad-impacted soil

15

Asbestos workers tell there should be written procedure to exit ^{E2} for water

0819 Tool Leads PT+R review for asbestos WP171 Type II

sharps, hot surfaces, fire extinguisher, eye wash, heat stress, manlift, rigging

0823 Bobby Leads PT+R review for rad-soil removal WP172 Type II

20

sharps, slips & trips, fire extinguisher, eye wash, dust, noise, heat stress

90-Day Pad Weekly Inspection was performed on Thurs 6/14/2001

12 containers/packages in MW area: 4 B-25s, 3 55-gal drums,

5 bulk plastic-wrapped packages (stairway, cross-ties, trailing motor,
turbulator tank, metal door)

25

2 containers in HW area (both 15-gal black-plastic drums)

First is grease/lead compound, second is air compressor coolant

- 1015 Begin excavating area SW of NE pad. Harry here, supervisors composite sample
Side Dump #1... T108599 Gray Johnny + David assist w/ water, loading debris
Morris + Victor de-teaching air compressor
5 Bed. Rem. Joel removing high transise below loft
1130 Soil stockpiled last Thursday has not been touched.
Today's soil (so far) has filled forward burrito #1, laborers are closing
Load waits w/ first load for rearward burrito #2 ^{side dump} of ~~stock~~ T108599
10 All transise in Bay removed.

- 1230 Rick Smith arrives
1317 Soil SE of NE pad excavated, now taking stockpiled soil to burrito #2
1345 first ^{side} dump (T108599) pulls out of scaffolding with 2 filled burritos (1:
1350 Dave Milligan collects composite sample of side dump #1 for Harry.
1355 second side dump (maroon) (#26710T) pulls into scaffolding
Craig Lyons and Mike LeRoy arrive
1405 Laborers Johnny and David lay out burritos #3 and #4 in sidedump #2
Bobbin loader begins strip NE of NE pad.

- 20 1415 Dennis Gustafson, Steve Nacht, and Greg Doyle arrive
Curt Galloway and Al Oginski also arrive Bob Rommel too

- 1505 Gina Cook, Dwayne Pickett, and Terel Nelson arrive

- 25 WM personnel discover we don't have tare wts for side dumps,
Stephan Duke gets portascaler out w/in 30 min, weighs side dumps
1525 Side dump #2 weighed empty ^{in burrito's}, pulled back into scaffolding

NTIFIC BINDERY PRODUCTIONS CHICAGO 60601 Made in USA

Boiler room begun

Work continued to Page _____

SIGNATURE		DATE	
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		6-41	
		DATE	

6/18/2001 continued

The asbestos workers (Bud and Ron) are upset that (they claim) Jim Pennington sent in the laborers to remove some pipe that has exposed asbestos insulation. The ACM workers were in full PPE respirators but the laborers were not.

Brounstein seems to have all info re: this matter

SIGNATURE

/s/ Signature on file

DATE

6/19/2001

DISCLOSED TO AND UNDERSTOOD BY

DATE 6-19

WITNESS

DATE

TITLE

Work continued from Page _____

TUESDAY
19 JUNE 2001

PROJECT NO.

119

BOOK NO.

Jesse Cisneros

Rodriguez

1540 arrive & down C

Mike Vandillen

Bud Jensen

0745 arrive & ROAD

Curtis (b)

Victor Ramirez

Ronald covers asbestos PTHR

Robert Brownstein

Morris Guice

David covers rad-soil PTHR

Jim McCloskey

Bobby Dallen

Curtis conducts safety briefing

David Milligan

Johnny Brooks

Ask Harry if waste control wants be
be here during shot blast. Post time?

Don Oakley

14 No safety or superintendent here

Brownstein pages to start non-asbestos work and that he is on his way to
get BZA's etc on asbestos workers. Jack page say to GET STARTED

105 Cal Pennington (in class all morning) - he says David in charge of soil work
and Ron in charge of asbestos work.

15

Don Oakley waters down yard, then goes to refill

7935 Robert Brownstein arrives, gets BZAs for Ron and Bud

20 1941 Don returns & filled water truck, parks to spray soil

852 spray soil.

1003 backing up side dump into CA #267107 (NV)

12 begin loading stockpiled soil into side dump #2, forward bucket (#3)

1076 Sidedump #2, forward bucket (#3) is full, pulls forward to scaffold to close

25 1051 begin loading side dump #2, rearward bucket (#4)

105 David A. leaves for training, Johnny Brooks in charge of soil.

Baebire/Londa begins removing soil NW of NE pad.

116 Sidedump #2, rearward bucket (#4) full, now closing @ scaffold.

SCIENTIFIC BINDER PRODUCTIONS CHICAGO, ILL. MADE IN USA

1128 workers exit CA and E2

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

6-43

WITNESS

DATE

120 TITLE

6/19/2007 continued

PROJECT NO.

w/m

w/m

BOOK NO.

EASTON

Poly

125/250 ml

500 ml

Work continued from Page _____

1230 Pennington returns

>2.5' NE Pad Opening Soil PCB₁ RAD

Side dump #3 lined w/ scaffolds

>1.5' SW Pad Opening Soil PCB₁ RAD

ready for burrito (gray # 30326 (ND))

NW (Dup of: PCB₁ RAD)

1300 Dennis Gustafson here

5 1330 loading side dump #3 forward burrito (#5)

need containers for rad (500 ml w/m poly)

1354 Dism pulls forward, goes to water truck
to spray excavation area.

and insulate.

14 -- second rearward burrito (#6)

1436 finished. Still need to excavate on SW side of bldg

10 Close burrito #6

asbestos workers estimate 18 elbows removed today,
29 to go

15 1443 asbestos workers will continue on for another ~ 1/2 hour

Third side dump bldg has closed filled burritos, pulls out
Harry collects sample, soil crew exits

1500 Finish & send DFR

20

25

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60608 MADE IN USA

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

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G-44

WITNESS

DATE

TITLE

WEDNESDAY
20 JUNE 2001

PROJECT NO.

121

BOOK NO.

Work continued from Page _____

John Pennington

1230 0140 Arrive @ RMAP 06:10 arrive @ dorm

Morris Guice

Victor Ramirez

move fill box of transite MW

David Milligen

Ronald Riccio

0750 Theresa conducts safety briefing

Bud Seaversen

slip trip falls

Bobby Dullens

PICS

Curtis Obi

acetylene

Teresa Morgan

Forklift, manlift, daily checklist

Loader

Jessie Cuenos

Craig Lyons

Mike VanDillen

0757 Bud conducts asbestos PTHR

Dwayne Rickett

Harry Perry

0805 David conducts soil PTHR

Phil Ralphs

Stephan Duke

3W Pad Opening Soil, 2' #25400548 - VI PCBs + Rad } need dup from
N3 Pad Opening Soil, 3' #25400546 - VI PCBs + Rad } one of these

0800 Crew preps to work, lube truck arrives

0840 Labwers expand MW area, reduce LLW area

1853 Bud & Ron are closing MW box of transite

Dave, Morris, and Victor getting drums for LLW soil

Harry & Stephan are weighing filled side dumps #2 and #3

Bobby getting forklift serviced by lube truck

1951 Forklift moves bag transite to MWAA, moving last empty sidedump into scaffold area for burnits set up.

SCIENTIFIC BAKERY PRODUCTIONS CHICAGO 60605 Made in USA

Work continued to Page _____

SIGNATURE

/s/ Signature on file

DATE

6/20/01

DISCLOSED TO AND UNDERSTOOD BY

DATE

6-45

WITNESS

DATE

6/20/2001 continued

1015 begin digging soil out of SW Pad Opening -

Soil, wires, debris

1050 Collect soil from SW Pad Opening at 2' b.t.o. soil

25400548

25400547 (dup @ 11:20 a)

Filled drum OIL OZ 9 1/4 full w/ mostly soil,
small amount of wires, plastic, debris} each a 4oz jar and
500-ml poly bottle

LLW

1125 Begin digging 4'x4' area SE of SW pad - actual area
is less because of concrete pad1125 burrito #7 installed in rear of sidedump #4, backed up, ready
to fill. Don runs water to next excavations (NW of SW pad
and around NE pad).

1309 crew ready to move dirt. No waste control yet

dig NW of SW pad (10x12' area) soil, a little concrete, plastic
dig 2' excav. @ 25400015 (no sample needed)

1340 loaden laborers cleaning up soil adjacent to NE pad for burrito #7

1430 location 25400054 excavated to 2' then backfilled.

1455 Phil Ralphs arrives Craig Lyons + Dwayne Rickett

1500 Dave + Morris begin digging @ 254000546 to 3'

Victor washes off loader

Harry says Craig said all soil will be disposed as LLW regardless
of waste characteristic results. sidedumps need to be tarped!
if not today for sure before weekend.

Work continued to Page _____

SIGNATURE

DATE

6/20/01

DISCLOSED TO AND UNDERSTOOD BY

DATE 6/20/01 WITNESS

DATE

TITLE

Work continued from Page _____

6/20/2001
continued

PROJECT NO.

BOOK NO.

123

1530 NIF P&A Opening soil removed + gas sampled.

1100 burners wrapped, laborers duffing.

asbestos boys already out after working hard a solid 3 1/2 hrs today

5

10

15

20

25

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60628 Made in USA

SIGNATURE

/s/ Signature on file

Work continued to Page _____

DATE

6/20/01

DISCLOSED TO AND UNDERSTOOD BY

DATE

6-47

WITNESS

DATE

THURSDAY
21 JUNE 2001

John Pennington (5-0)

0545 arrive & down & samples for ETs switch out pickups

Darrid Mulligan (C)

0800 arrive & ROAD

Morris Guile (L)

0805 Ron discusses abestos PTHR

Victor Ramirez (L)

will remove all elbows and clean bay of debris

Bobby Dollens (D)

5 0820 Robert Brownstein arrives, gives tailgate safety

Ronald Risco (A6)

hard hats, yellow rope, housekeeping

Don Dakley (T)

all personnel must have tailgate briefing

Bud Severson (A6)

will have safety stand down this morning

Johnny Brooks (L)

Fila Tomason (113)

10 0847 Big Crowd arrives, Harry Perry, Phil Ralph,

Tom Parkinson (113)

Stephen Duke, Larry Hatcher, Adam Dae Gron,

Curtis Obi

Jeff Vinceli, Gene Cook, Craig Lyons, Jerel Nelson,

Robert Brownstein

Jessie Cisneros, Dan Koelker, Mike Vandillen

Dwayne Puckett

15 0905 Jerels safety mtg in 113 High Bay

No entry until sign in, SITE CONTROL, TAILGATE SAFETY

BRIEFING BEFORE ENTRY, combine 113 and 254

briefing to ~~allow~~ prevent, barriers - no more crossing barriers

20 1135 Laborers doubling up rope barriers

Bobby on forklift moves pallet w/ 1 remaining down (1 red elbow)
to HWA. Dave spots1145 Bobby on forklift moves pallet w/ 1 down (2540548) 3/4 full of soil
to LLWAA Jim Tryner on site.

15

1337 CR boys weight packages w/ forklift.

Side dumps covered in plastic (except #4)

TITLE

Work continued from Page _____

6/21/2001 continued

PROJECT NO.

BOOK NO.

125

1545 Asbestos works finished removing bay elbows,
now clearing floor of debris, will HEPA-vac on mounds

Tally up waste containers in WAA (see pg. 200, 201)

LLWAA 1 item

NWAA 14 items (plus 1 bag PPE and 2 dwn soil 25400546-VI still in CA)

HWAA 2 items

non HWAA 8 items

4 side dumps covered in plastic & placarded.

1608 daily debris

KATERN

7884

SCIENTIFIC BUDGET PRODUCTIONS CHICAGO ILLINOIS Made in USA

SIGNATURE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-49

cover side dumps
w/ weigh containers
CA violation
Signage on side dumps

126 TITLE

Work continued from Page

MONDAY
25 JUNE 2001

PROJECT NO.

BOOK NO.

Curtis Alb.

John Pennington

7 L arrive & down C

GCS Doyle

David Milligan

11 a. arrive & run AD

Patrick Morris

Johnny Baines

Pennington Reads

Robert Brownstein

Morris Gurle

1240 Bud employee driving Govt employee vehicle

Bennig Gustafson

Bud Severson

5

under authorized work, (H30125)

Adam Daefron

Jim Fisher

1242 Brownstein leads tailgate safety briefing.

Shotblast - forklift, move to CAN 254

Mike Ford

Ronald Bisco

R-arrange CA for Boiler room access

Dudley Coen

Joel McMillan

Soil CA has been cleared

10

ACM work - clear out bag, begin boiler room

Set up light pathways in CAN 163

clean safety glasses

Shotblast needs drum disconnected before moving

(300) Review PTTTs

15

• cleanup ashtrays - (WP 171)

• prep to shotblast - housekeeping - (WP 178)

• shotblast - need WP (CAN 113 WP mob) operating procedures

20

1410 Jim McLoskey shows me results of last Friday's De-Port survey

entire slab edge at SE Bay ^{Door} (RR) is run up to 50 ft.

also e. corner of NE pad and NE and NW edges of NE pad

1422 Jim Fisher moved big load out then unloaded stair way for labor trailer, now taking manlift out of bag

25

TUES 1. Shotblast OP ready, Wes afternoon

2. Can practice on SW pad

3. Can remove lead pipe, remove lead

4. Can remove AST

5. Shannon PCBs Work continued to Page

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60601 Made in USA

SIGNATURE

DATE

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DATE / - 01

TITLE

Work continued from Page _____

TUESDAY
26 JUNE 2001

PROJECT NO.

BOOK NO.

127

0700 arrive @ RMAD

113 - barricades

asbestos in boiler room - lifting
haz

reconfigure shotblast compr.

- pinch points, trip haz.

- practice on area cleared by RIT

quit time 430 445 leave 455 p

0723 David does PTHR for housekeeping (WP178)

Bud does PTHR for asbestos ^{WP} 171 13 elbows in boiler room, should be done today.

AST almost full w/ bagged asbestos elbows.

1134 Air Compressor being forklifted to UDC waste area. Crew still setting up shotblast

Bud still cutting elbows

Jessie takes manlift into bay to check on owlets

Jim on large loader removes compressor concrete pad.

1350 Add 2 new containers to MWA (55-gal soil tie Pad opening

see pg. 200

and 15-gal lead bricks & pipe collars

1400 Dennis Gustafson and Jorel Nelson arrive

1430 Jessie Cisneros & Jorel take manlift and find 2 owlets
at very end of ducting.

25 1450 Carlos Gonzalez & crew drop by, take bucket
of 2 PCB transformers

ACENTIVE BUREAU PRODUCTIONS CHICAGO 8086 Made in USA

Work continued to Page _____

SIGNATURE

DATE

SELOED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-51

WEDNESDAY
27 JUNE 2001

0930 arrive C ROAD Robert Brownstein Jim Fisher

0945 Brownstein gives safety briefing ^{254/113} Curtis Ohi Roger Wolfley

AST - removal, lead collar removal Dennis Gustafson Jessie Munj

barriers - do not cross, CA/EZ Steve Nocht Victor Pardini

5 level D PPE - Wayne Johnson Morris Guice

heat stress - fluids Terrel Nelson Bud Severson

uneven ground Greg Doyle David Milligan

Bob Skier

1100 Construction safety mtg Mike Vandillen

10 113 - gates, fencing, MOB Jim McCloskey

show fencing inside 113 Patrick Morris

254 - loose AST stairs, move it to narrow Stephan Duke

- remove chain link fence, replace w/ rope Phil Ralphs

- bust out lead collars

15 1130 Do weekly inspection of 90-day HWAA⁽²⁾ and MWAA⁽¹⁶⁾ (LW⁽¹⁾)

1330 flurry of activity.

20 call 113: Jim Fisher on forklift and iron workers Roger and Jessie move rad
containers and empty drums to call 113 empty storage and WAA.

call 254: Milligan, Brooks, and Guice prep to break leaded pipe collars.

Bud and Victor prep to cut bolts on stairway, conduit in
air compressor slabs excavation, pipes nr. SW pad opening.

1430 Stephan Duke and Phil Ralphs arrive, hope to sample left floor
left insulation, air compressor coolant, and white paste TORRORON

25 1500 Jim on forklift moves AST and wood box to load

Stephan & Phil log in soil drum from NE pad opening

Jessie (Canoas) & David Milligan work on shotblast numbering things

2. Gus Tamps FR Sidedumps delivered today. Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

4-52

WITNESS

DATE

6/27/2021 continued

- 1520 Jim Fisher on forklift, Victor, and Bud on torch start taking down fence.
will cut off pipe rather than remove ^{concrete} footing as before.
- Brooks suits up + replaces Morris in boiler room breaking up leaded bells
- 1630 Jim McCloskey confirms yellow rail car is clean. Laborers loading
bucart of front-end loader w/ non-rail pipe, will dump into
rail car.

Jessie Casneros & David M. Hagan having a very hard
time w/ procedures & labeled valves & connections.

Work continued from Page _____

0610 arrive @ ~~RMA~~ home0710 arrive @ RMA with work on Fencing (254-^{remove} perimeter fence, 113-^{set up} snow fence)

0730 brownstein begins tailgate No Pennington & Milligan (in mtg.)

- remove RMA fence, replace w/ rope cuts, burns (wear gloves)

5 report all accidents & injuries, no matter how slight

- slip, trip, falls - proper PPE (hot work garments, arc i-cs)

0740 Johnny leads PTHR

general housekeeping and disposal of ^{surface} debris (254)

Curtis Oh.

Patrick Morris

10 0746 Mike V-T say survey of lead collars complete

Robert Brownstein

Just a few pieces (up to 20K dpm) were rad, and in

Don Koelker

marked plastic bag.

Jesse Cisneros

Mike VanDillen

0845 place small plastic bag of a few rad collars

15 into MWAH existing drum (15-gal) w/ rad lead.

Johnny Brooks

place 3 plastic-bags (~50 lbs total of ^{non-rad} rad

Morris Guce

collars into and existing plastic-bags

Victor Ramirez

of non-rad lead bricks and collars

Don Oakley ~ 1300

into 15-gal drum in Non-MWAH

20

0915 - place hotline PPE waste bags into 1 drum in MWAH

used a recycled YMP gout drum for the first time

Bottom reads: UN1A2/Y1 2/100/94

UN1A2/X346/S/94

25

USA GBC 1 1MM

New Drum Bottoms: UN1A2/Y1.8/150/00

UN1A2/X400/S/00

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-54

Work continued from Page _____

1:40 Brownstein giving sofee
Patrick was assisting
Jereh says there is
Jereh says last week
this morning.

and Jim Fisher. Jereh here to
'breached pipe, not by CR)
this became a PAPA violation

Last night around 5pm, at Tyvek at, use Anti-cotton coveralls.
No decision yet regarding what to wear for hotwork.

Should have left side opening rather than top opening on AST box

1:45 AST wrapped in plastic & placed in box. Photog leaves.

1:50 Stephen Duke arrives

1:50 Terry Sonnenberg arrives

1:50 Stephen & Terry prep to sample left wood and insulation
Caseros & Milligan go over shotblast procedures

Fisher, Victor, and Brooks move CAU 113 empty drums

Trailer w/ compressor & fuel tank now over plastic lined pad
immediately S of SW pad.

1:50 Complete sampling: white paste (sampled away, no material left)
coolant
left insulation
continue sampling: left wood

MONDAY
9 July 2001

John Pennington

Jim Fisher

Bud Severean

Dane Milligan

Johnny Brooks

Morris Garcia

0600 arrive @ dorm C

call ortego (1/2 day/wk till Aug 13)

0705 arrive @ RMAO

Send Terrell page - shotblast OP done?

otherwise, will just do CAD 113 today.

① Terrell responds, ^{signatures} hopefully by noon0712 Brownstein leads Daily Target Briefing ① orange fencing ^{with the} CA

① insect bites & stings - venomous / non-venomous

(avoidance [scents, bite colors], do not remove stinger
w/ tweezers, allergies) ① fire extinguishers

① Heat stress - rest/fluid breaks every hour, WBGT

0726 Pennington leads tool box discussion

① Lock out/Tag out, New workers

0745 Dave leads review PTHR 328 Type II CAD 113

Remove rad-impacted items from Post Mortem Cells

Shotblast requires 3 laborers & operator

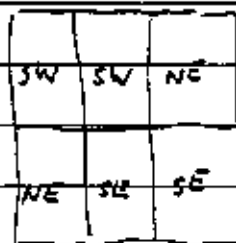
0800 Perform weekly inspection of 90-Day Pad

LLW - 1 drum

HW - 4 0-25 6 - 55-gal drums 2 - 35-gal drum

1 box transformer 5 - plastic-wrapped bulk items

HW - 2 35-gal drums

All 4 side dumps have visqueen
plastic covering. 3 side dumps
also have blue tarps secured.

N

1132 Workers complaint of eye irritation, possibly from torch cutting

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60606 Made in USA

Work continued to Page _____

SIGNATURE

DATE

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DATE

WITNESS

DATE

6-56

Work continued from Page _____

There are rat droppings on the clean cotton coveralls. Hammerer concern.

1245 Barron with enter CA to monitor atmosphere due to exhalation.

1300 Harry, Stephen & Adam arrive, suggest getting real tarp for fourth side dump. At least need to remove ponded water.

1350 Laborers moving debris laid out on CAU113 pad, into container but Harry/Stephen/Adam can not certify it, need Phil Ralphs (not here) to approve plan and witness packaging.

Thunder storm approaches from NW

1400 Dennis^F calls for electrician to check office trailer grounding.

1420 Dennis^F takes off.

1445 Depart RMAP

1515 arrive dorm c

SIGNATURE

DATE

CLOSED TO AND UNDERSTOOD BY

DATE

6-57

WITNESS

DATE

TUESDAY
10 JULY 2001

PROJECT NO.

BOOK NO.

Boo Remmel

0555 arrive & dorm c

CALL 113 07M08E12

Jim Fisher

0700 arrive @ RMD

Bob Severson

Mike LeRoy estimates progress on Post-Morsem cells:

Morris Guice

75% below 6' ← mostly done

Roger Wolfley

5% above 6' ← bulk of effort, lots of touch work

Jessie Morge

Brunstein

Darius yesterday's nausea & eye irritation problems

Robert Brunstein

• Probably should have anticipated lack of ventilation

Curtis Ohi

and should have planned for HEPA circulation system

Mike LeRoy

• Probably overreacted in sending laborers to New Medical

Jessie Casanova

• will not proceed w/ touch work until ventilation improved.

Mike Withers

PTHR for 113 removal of rad. items

Dave Milligan

Johnny Brooks

0810 Dave Milligan and Johnny Brooks arrive

Adam Deegron, Phil Ralphs, Dennis Swick

0910 finish removing ponded water on side dump tarps & plastic

1020 Jeff Vucoli & Joel Nelson arrive

1030 Laborers place plastic over box of transite (MW)

1230 Depart site for UGIA training

254

07E14D11

113

07M08E12

UGIA Training

06A011DD

SIGNATURE

DATE

DATE

6-58

WITNESS

DATE

WEDNESDAY
11 JULY 2001

0640 arrive @ farm @

switch out fire extinguisher, TLD

0845 arrive @ RYAD same time as Brownstein and

RCTs (Ole, LeRoy, Van Dillen)

0948 Brownstein begins safety briefing

RCTs will need 1 hr. max to survey + post

post-mortem calls, hi rad yesterday.

'High Contamination' where pipes were removed

Contamination concern, not exposure

5 more pipes cannot be removed until RWP is

amended. Pipes will be marked.

Tape/patch/replace PPE if ripped, Level C.

Fire Extinguishers - monthly inspections

How much work left in Post-Mortem calls % torch?

- couple of days, rest of this week

Hot work - one torch couple weeks ^{of} & rigging

Looking at supplied air respirators,

Fan available in UZA, HEPA available but installed at Area 12,

Fan and HEPA may be available in X-tunnel but need 2 miners

1215 Jim Traynor arrives w/ PIC.

325 Phil Ralph ^{+ Stephen Duce} arrives, briefly, leaves

1435 Jessie Cisneros tried PICs for an hour, Brownstein checks ear temp @ 100.0° F, the highest he's seen here yet! Jessie also reported tired back, heart pounding, and odd sensation of cool torso but hot head and lower body. He'd rather not use it again

K TFC BINDER PRODUCTIONS CHICAGO 60608 Made in USA

L 50 Dennis Burahert & Michael Murphy visit re: portal monitor Work continued to Page _____

SIGNATURE

DATE

Curtis Obi
Robert Brownstein
Mike Van Dillen
Mike LeRoy
Albert Peterson
Jim McLoisley
Mike Withers
Jessie Cisneros
Jim Traynor

Bob Rommel
Roger Wolfley
Jim Fisher
Jessie Monge

Dave Milligan
Bud Severson
Morris Guice
Johnny Brooks

THURSDAY
17 JULY 2001

0555 arrive @ Term C

Curtis Ohi

Roger Wolfing

0710 arrive @ Rmap

Robert Brannstein

Jessie Murge

0720 Dennis Finney dismisses last night's

Mike LeRoy

Bud Severson

ill at accident, take the time to work safe,

Jessie Cisneros

Dewitt Lilligren

pinch points, sharps, gloves, etc help.

Albert Peterson

Johnny Brakes

0722 Brannstein

Craig Lyons

Morris Guice

No DOE visit today

Kurt Galloway

Jim Fisher

Gina scheduling 8-hr. Harrower

Dennis Finney

Will conduct practice evacuation today

Workers in CA will just exit if real emergency.

Worry about path survey later

PICS - will do next today after lunch

Watch for physical stress

Watch speed on road

Same work as yesterday, no hot work

still looking at ventilation

0730 Roger does PTIR - 113 rad beams

Need ventilation for hot work

by Monday, Rammal,

~10 get word that shotblast pt has been signed.

Jarl, LeRoy, etc.

talk to Jarl, latest plan:

May drain oils from cranes on

(132)

• Today - make sure shotblast is ready to go on Monday.

Monday, need 5 gal cotton

- covered all oils

1 gal jugs, funnels, etc

Jarl w/ check training up to make sure it is still

Jessie Cisneros is running 254

current applicable. If so, we can train today.

air samplers to collect

(113)

• Non-hot-work - removal of rad items will

background data

move to either Pezzanone or Lower Disassembly

Bay

Craig Lyons & Kurt Galloway are here

10:30 Ron Rino (Amstar) here, says ^{his} Skier and Theresa are coming.

11:05 Jack Ross arrives, says carpenters are coming to take scaffolding - will take certain parts, re-tag scaffolding, then return Acuts for rest of soil work.

Greg Doyle and Dennis Gurtajson arrive

12:50 Adam Daegorn and Dennis Swick arrive

Stephen & Phil on their way shortly

13:00 Take Dave to Muc Med

13:30 arrive @ Muc Med, Gust & Jeff V. arrive shortly.

1445 return to RMAD w/ Dave

5:00 Jessie Cernos and Morris Guice took manlift to loft, opened end of duct and found no owls, they inspected outside opening and found no owls. They will now open middle ~6' of hidden ducting before covering all openings w/ snow fencing.

Johnny Brooks and Bud Severson moving drums and setting up T-posts of future shotblast CA

At about 12:15 p. I overheard Robert Braunstein on the phone mentioning Dave Milligan had reported slight "woozi-ness". I later heard this happened at about 9:30 after being in the CA for about an hour. Dave had been working on the 8' ladder, removing light bulbs. He said his feet were probably 6' up, and head ~12' up. The doorway is only 7' high max so the restricted/confined upper part of the room may have trapped heat, and possibly gases.

Work continued to Page _____

5. - NATURE

DATE

C. CLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-61

Work continued from Page _____

Morris Guice was also working in that room but at ground level. ^{but did not experience weakness}
Dave mentioned he was reaching up a lot to remove light bulbs et-
and needed to rest his arms several times. All the workers
(Dave, Morris, Bud, Johnny) agree it was hot and stuffy in the
5 post-mortem cells. The doctor at the Merc. Med. say he felt it
was mild heat stress, noted Dave have fully ^{rehydrated and} re-hydrated since
then, and released Dave. Guia & Jeff agreed no more
work, rest the remaining day in a cool area. Dave
said he'd prefer to do this at RMTD. Dave said he
10 felt fine after a short break but complied w/ ESH orders

15

20

25

SIGNATURE

DATE

- TITLE

MONDAY
16 JULY 2001

PROJECT NO.

139

Work continued from Page _____

BOOK NO.

0555 arrive @ dorms
0701 arrive @ PMAD
CL has OI & RWP for shotblast
80W - 254 shotblast - Airburne Road Area (higher than CA)
0724 Gina leads safety briefing
Shotblast
Level C PPE PAPP full face
Level 3 outside CA
Reconstruct site, visitor movement.
11 Stay upwind, none allowed downwind.
Fencing - orange snow fencing
heat stress - w/ GGT, PICs, breaks
Buddy system - watch each other
Site Supervisor - identify alternate
15 EPR, first aid, dbl hearing protection
Stop all unsafe conditions (time out)
Odor or irritation indicates full-face
PAPRs are not working.
254 and 113
1754 Jeff Macoli: arrives
need HETA vac
20 John Pennington
254-202 - Type II WP, JHA/PTHR
Decontam Concrete surface using vacuum shotblasting
0818 take break before OI/RWP.
1128 Craig Lyons leads discussion of OI/RWP
unit not yet contaminated, can know, temp, test in PMA
work - RWP1 (c) breath system (drums, shot, remove hose) - RWP2 (full level C)
demon after all hoses removed, wiped - RWP3 - move to 113 (no respirators)
A lot of concern re: resuspend material in drum, hoses, machine's

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO, ILLINOIS MADE IN USA

Work continued to Page _____

SIGNATURE

DATE

CLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-63

7/16/2001
continued

RWP 19, 20 - Level C, dist gloves, full-face PPR, boots, hood, tape, cotton coveralls,
engineering controls is the shotblasting

RWP-19 operations

RWP-20 break work

check air samplers every ^{shift} ~~time~~, every hour if possible.

"Airborne Radioactivity Area" (ARA) during ops & break work

"Contamination Area" (CA) during demo's

2945 finish OI/RWP Craig Lynn's discussion

~1000 Call Harry, no waste packaging. ^{Phil Morris} Earliest will be after lunch

He will tell Phil. I will call w/ up down ~ noon

1008 Dave Milligan leads 254 shotblast PPR discussion

Arena rentals drop of sm sensor lift

1030 Perform weekly inspection of CA 254 HW/MW 90-day pad

Patric Morris will be leaving site for a day.

1250 Jessie Cuenca arrives

14¹⁵ workers test hand-held shotblast nozzle on sw pad (ok)

15⁰⁰ workers test cart-mounted shotblast nozzle on sw pad (slow)

15²⁰ workers test both nozzles at same time

15³⁰ workers loose suction on shotblast. Trouble shoot

Jerel sends page. www.aesinc.net

1-800-536-7711

17²⁰ return to dorm C

18¹⁰ leaving site.

Work continued from Page _____

- 0620 arrive @ turn c ~ 0700 Gina arrives, we all enter compound.
- 0655 arrive @ runway, no safety so no entry. Ole sign in workers lined up at gate
- JP: will package can 13 post-mortem cell waste, then move ops to mozzarino ^{hot line}
- need to call/repair can 254 shotblast - vacuum not effective.

- | Topic | Tool Box - Lockout/Tagout | Gina Cook | John Pennington |
|-------|--|----------------|-----------------|
| | Lightning/Flooding | Patrick Morris | Jim Fisher |
| | JP will leave for safety mtg 0730 | Curtis Obi | Dave Milligan |
| | 0730 Gina arrives Daily Tool sets | Craig Lyons | Johnny Brooks |
| | Lifting hazards - technique, stretching, assistance; pinchpoints and | Jesse Cisneros | Donald Cooper |
| | sharps; anti-c; but no respirators | Mike LeRoy | Victor Ramirez |
| | Heat stress - monitor, fluids, breaks | Mike VanDillen | Morris Guice |
| | 0739 Dave Milligan covers PTHR for can 13 - removal of rad items | Jeff V. Neal | Mike Withers |
| | fire extinguisher | | Dan Koelker |
| | 0802 DM calls. Other discussion in office re: use of handiact | | Adam Daegron |
| | Barry Kenney (703) 298-5024 service rep. (adv. environ. systems) | | Jim Traylor |
| | Several suggestions to check out | | |
| | 0825 Dave Milligan, Jim Fisher, Curtis Obi cover PTHR 209 WP 170 - setup | | |
| | 0800 Check out shotblast unit, find kinked air tube, straighten out, test, still bad. | | |
| | 0817 Lower '40 c" vacuum hose' bellows seems to close (inflate? collapse?) more tightly than upper, stopping all vacuum. DM says factory rep said he'd check for unseated bellows. | | |
| | 0835 Lower bellows appears unseated but need tools (iron worker or mechanic) | | |
| | 0840 Mechanic Kenney Parker arrives, checks out shotblast. Loosen bellows but | | |
| | 1148 doesn't tighten flush. There is a gap. Was probably cross threaded at factory. | | |
| | Section is better tho. Kenney thinks this will fix it | | |

SCIENTIFIC BATTERY PRODUCTIONS CHICAGO 80085 80085 80085

Jim Traylor here, getting morris ^{neopam} guice into PICs Work continued to Page _____

SIGNATURE

DATE

APPROVED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-65

Work continued from Page _____

1240 Call Barry Kingrey, Dave Milligan discusses. Pennington + Parker, Dr. + General
Salesman is coming out tomorrow, not function w/ this machine. Describes problem, symptoms

1300 Pennington calls Teel, wants service rep or tech. to come out tomorrow, not salesman.

Advanced Environmental Systems (800) 536-7711

(508) 949-2430

fax (508) 949-2473

www.aesinc.net

Barry Kingrey (Service Rep) (703) 298-5024 cell phone

1310 Dave Milligan and Kenny Parker go up to check shotblast. Does
small tuning draw vacuum when unit is on vacuum.

1420 Patrick Menis reports his cool vest lasted 1:40 on low on cool day.

David reports 20-gal drum $\frac{1}{2}$ full

SIGNATURE

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WITNESS

DATE

G-66

WEDNESDAY
18 JULY 2001

PROJECT NO.

143

Work continued from Page _____

BOOK NO.

- 10 arrive @ RMAD clean, cool, calm
- CA 254 move snow fencing ARA/CA boundaries + signs stairs pallets
pallet gear ISOCS yellow rail car prep + do shotblast
- RAIP - will be posted ARA/CA (double posting)
- double hanging protection w/10' of air compressor and shotblasting
 - PICs, sunscreen ISOCS not in ARA/CA
- CA 163 • ISOCS demo - need to determine if rail car needs to be tipped
- Power tool visit • hand-rail for stairs
 - Bob Skier visit (air flow requirements) - check HEPA vacs.
- check w/ Davidson re: cutting off edge of pad (need WP, etc)
- Prep to remove red items in Mezzanine

	Jeff Viacoli	John Pennington
Level C of PPR when disturbing area:	Curtis Ohi	David Milligan
Decom ARA/CA, removing road items.	Patrick Morris	Johnny Brooks
Stop work in your area if unsafe condition	Craig Lyons	Donald Cooper
	Jim McEllorey	Victor Ramirez
Scheduled: 1 pm RMAD Technology Demonstration	Jessie Cisneros ²⁵⁴	Jim Fisher
	Mike Lakoy	
254 - WP - set up (PTHR-Milligan)	Mike Withers	
- WP - concrete shotblast (PTHR-Milligan)	Mike Van Buren ²⁵⁴	
	Dan Koelken	
Jim Fisher gets call for immediate	Albert Peterson	
dry test urine sample.		

- 10 Tour @ PTHR ISOCS
- 11 Tour @ Decon facility - Began shotblasting

Work continued to Page _____

DATE

TO AND UNDERSTOOD BY

DATE 6-67

WITNESS

DATE

Vertical concrete samples

THURSDAY
19 JULY 2001

- 0700 arrive @ RMAD
- J. Pennington
- 1st re-cover ending w/ plastic
- 2nd continue shotblast - begin wood areas, eg. no rails, work out.
- 3rd mezzanine - rad. rooms. 'less work, decor. too
- 5 82K → 2K all rad grain 320K → 60K all rad
- nitrogen bottle in mezzanine needs to be secured, ladders to unauthorized areas need to be moved? RWP 0102-254-19
- 10 need to move out 2 full doors
- 0715 J. Vincoli daily safety briefing
- respect E2, CA, ARA/CA boundaries
 - level E w/ PAPER inside, level D outside
 - weather - like yesterday, w/ less wind
- 15
- tripping hazards - pallets, hoses
 - hourly breaks, shade options
- construction hazards
- poor lighting
- 20
- hand rails fixed
 - dbl. hearing protection areas reduced
- 0737 John begins covering all WP/PTHR/THAs (David Miligan)
- 25 0900 workers re-covering sidewalk w/ plastic, Jessie Casneros performing experiment, measuring rad reduction when covering floor drain with sand and with water-filled bucket.
- 0930 Jeff Smith and AES (shotblast mtg) arrive Jerry

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 60606 Made in USA

1/1st depmt site

Work continued to Page _____

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

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WITNESS

DATE

6-68

0600 arrive & dorms 0700 arrive & ROAD
John Pennington discusses SOW for today
0715 commencing w/ 254 shotblast
we now become priority 3.
Have only 1 operator
1 iron worker
4 laborers
Jessie & Victor R in 113 rad removal

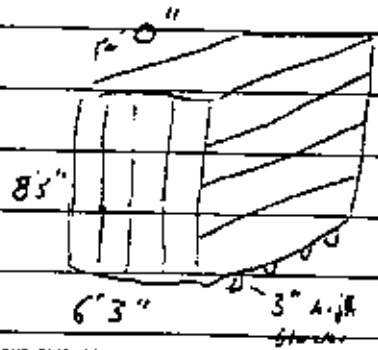
Jeff Vincali	John Pennington
Curis Obi	Jim Fisher
Patricia Morris	Johnny Brooks
Dean Kaelen	Donald Cooper
Craig Lyons	Victor Ramirez
Jessie Cisneros	Dave Milligan
Mike Van Dillen	Jessie Monge
Jim McCloskey	
Mike LaRoe	
Mike Withers	

0715 Jeff Vincali runs Daily Safety Briefing
RCT will direct shotblast areas
avoid downwind areas
minimize accumulating shot
HID 3° SW 10-20, Hydrant, rest, shade
level 2 ^{W/MPR} inside CR, level D outside

0732 weekly Toolbox discussions by Pennington

Dave Milligan leads shotblast PTHR

Johnny Brooks's respirator certification has expired, will post signs, etc.



08:25 weekly 90-day P&I Inspection

← AST tank box

08:45 RCTs (Jessie & Mike VD) finish up 254 briefing, workers finish up setting up.

Work continued to Page _____

Work continued from Page _____

D. Nelligan, D. Cooper, V. Ramirez diff level c^W/fd-fca PAPPs, enter ARA/CA

0940 - Conf call w/ Dennis Gustafson and Jeff Smith re: extent of shotblast to
remediate road (hot spots as called out by CND + RCI re-survey) and RCRA-Haz
5 constituents (at extremely low conc.). Jeff advises to remove road
hot spots to release criteria (as we are doing) then perform extra shotblast
at low lying areas (near rails + drains in bay, near drains, a pads) and
where IT samples indicated contamination was found.

Question: Analyze samples for VOCs + SVOCs as well?

~ 7p. Harry Perry and Stephen Duke arrive

14⁰⁰ Craig Lyons discusses shotblast problem. rubber-cork filled seams
15 (~1/2" wide), shotblast as well as we can the fill^W (grout
as high as 40k dpm. is there a specialized shotblast
remove vests too? head for cracks (crevice tool,

jackhammer out? - will need HEPA system.

how far can we go into slab and stay in scope?

1510 - call Dennis Gustafson

25 pm - no vector in ARA/CA, Jessie filled in

shotblast ~300 sf today

SIGNATURE

DATE

READ, HEARD TO AND UNDERSTOOD BY

DATE 7-27

WITNESS

DATE

TUESDAY
24 JULY 2001PROJECT NO.
BOOK NO.

147

545 arrive E dorm c	ABTE prep	Curtis Obi	John Pennington
0700 arrive @ R-MAD. Pennington:	identify areas > 24k, reduce	Jeff Vianoli	Johnny Brooks - red fit test
500 254: continue shotblast	in port hand tool	Mike Van Dillen	Donald Cooper
dry wet cold seam, vacuum	up dust, pieces in bag (rad items) (and 10)	Jessie Cisneros	Victor - Ramirez
113: wind socks - set up		Craig Lyons	Dave Milligan
0712 Jeff Vianoli - safety briefing		Dan Kelliker	Jessie Morfe
			Jim Fisher

Level C PPE / Level D PPE

Level C PPE PPE will follow most stringent

Support Zones re-passed

Work stools, ergonomics, switch off

First aid / CPR

Check w/ Waste Control - load drum of bagged PPE

Why does IIT want to monitor for lead?

However, there seems to be a mandate even though

no lead was detected in characterization

Laborers do not ~~have~~ ^{want} to wear PPEs for 254 shotblast

but it will remain available if wanted.

1745 David Milligan worn shotblast PTHR

Breeze if from NE this morning so NO SHOTBLASTING

crew works on crevices & cracks w/ hand tools & HEPA vac

- load up 2 drums w/ PPE - hotline trash bags (3) and rad items (1)
- big wind shift (DRUM ONE) "Hotline PPE FOOD, FOOD" contains cotton anti-C coveralls, hoods, duct tape, earplugs, cartridges, boots, gloves in yellow plastic
- trash bags (DRUM TWO) "Hotline PPE + rad items FOOD, FOOD" contains hotline PPE listed above, plus rad items (rubber caulking, concrete pieces, gak, blown-in tumbleweeds, etc.)

PC SERV PRODUCTIONS CHICAGO 8088 MADE IN USA

Work continued to Page _____

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DATE

TO AND UNDERSTOOD BY

DATE 6-7/ WITNESS

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Work continued from Page _____

1125 Wayne, Dennis, Bryan, Joel, Gina arrive for pre-DOE audit checking

1400 Don Oakley arrives w/ flowboy full of drums and burrito sacks

5 (6:00) Workers report 4 crevasses in concrete // to tracks
are 2.25/4 done (just over half.)First waste drum is about $\frac{1}{3}$ full

10

15

20

25

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DATE 6-77

WITNESS

DATE

Marshall Lewis

0807 answer @ ABTF

Joe Jastronski

50W-

Clyde Marshall

0810 Daily Safety Briefing

Dan Norvell

Reg Montoya - pipe filter to close valve

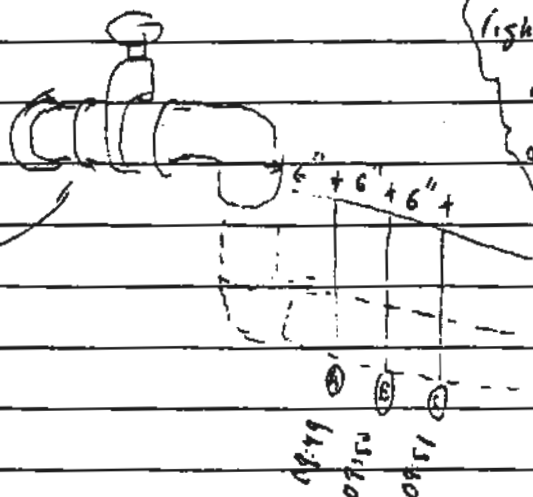
24

55

did some hand digging to find original excavations

0920 now backhoeing trench $\geq 3'$ from buried pipe

120
120
1320 lbs



light brown f-m sand (sp)
with 5% c sand and 5% gravel
dense, dry, no stain or odor

typical 55-gal drum
is 52 lbs
2 1/2 372
12
12
12

10:4 Kraig Knapp says A - has yellowish discoloration seen before (predicts > 2000 ppm)

B + C have lighter discoloration (predicts high but < 2000)

1020 Blank reads: Cal's right on

A - > 2000 ppm

B - 732 ppm

C - 906 ppm

F-E03-2.0A @ 10:30

1030 collect 8 4-oz jars of soil from location (A)

1040 backfill excavation

7/25/01 continued

1100 backfilling complete, workers prep to leave ASTF
 1111 Roy turns valve back on line and leaves
 1125 depart ASTF

TB40C-03 (84% 1840)

process samples, drop off @ ETS @ 13:20 F-ED3-2.0A (85% 1050)

Wednesday

1410 arrive @ RMA

7-2p 7 hrs ASTF

2-5p 3 hrs 254

SOW continue shotblasting

Daily Safety Briefing

Level C PPE w/ PAPER w/ ARA/CA

Dbl hearing protection during shotblast

254

Heat stress - hydrate early & often, work/rest

mob, setup, demo's

CPR / First aid

decon concrete #202

Work w/in slope, stop and notify sup, stop if safe

rad items #173

RAD work air samples negative

Jeff Vuceli

Sebine Lottis

Victor Ramirez

Mike VanDillen

Janet Appenzeller-Wing

Donald Cooper

Craig Lyons

Dana Wheeler

David Miller

Mike Brothers

Peter Munding

Morris Guice

Mike LeRoy

Bruce Hill

Jim Fisher

Jesse Casner

Bub Rummel

Ole Petersen

Jinning Brooks

Gunn Cook

this morning, wind was initially wrong

Brian Kurnard

so rad item removal w/ hand tools was performed

Janel Nelson

then wind shifted and shotblasting began

Dennis Gustafson

this morning

Curtis Olgi

DOE audit was successful

John Pennington

SIGNATURE

DATE

DISCLOSED TO AND UNDERSTOOD BY

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WITNESS

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TITLE

Work continued from Page _____

7/25/01 CONTINUED

PROJECT NO.

BOOK NO.

Mon 7-5³⁰ (10) RMADTue 7-5³⁰ (10) RMAD 11:25³⁰ AGT 151Wed 7-2 (7) AGT 2-5³⁰ (3) RMADThurs 5-6³⁰ (10) AGT 0³⁰ RMAD

(LA7)

(LA7)

(LA5)

(LA7)

THURSDAY, JULY 26, 2001

5³⁰ arrive @ dorm C cleanout + fuel up van Jeff Vincoli John Pennington
 7⁰⁰ arrive @ RMAD receive turbulator tank Curtis Obi David Milligan
 Try to shotblast if wind is favorable Craig Lyons Donald Cooper
 Still have plenty of hand-tool work Lewis Csheros Johnny Brooks
 Level C 4 Full-face PAPR in CA and ANA/CA Dankoelke Morris Guice
 Heat stress (work 1 hr max, min 10 min rest) Mike Vandillen Victor Ramirez
 Potential of thunderstorms + wind change. Mike Withers Jessie Plonje
 Ole Brown Jim Fisher

113 Getting air compressors for airline next week, still need ventilation
 Stay in work scope

0745 David Milligan leads PTHR

0940 Called Harry Perry - Waste Control handles disposal of MW and LLW
 and they enter their waste into HAZTRAK

- I should coordinate HW with Shannon

- I should coordinate asbestos w/ Alvin Monahan

0940 after re-covering turbulator tank w/ plastic, crew dons +
 begins shotblasting decon bay w/ 2 hand-held nozzles.
 They rather be on hands and knees than use cart-mounted nozzle.
 get MSDS for long life grease, Harry's analyticals

213 Shannon calls, says fill out BW-0766 to scheduled pickup on Aug 21
 include analyticals and/or IT report pages

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Work continued to Page _____

SIGNATURE

DATE

DI LOSED TO AND UNDERSTOOD BY

DATE 6-75 WITNESS

DATE

1400 Call Harry re:
proper UN codes for drums
Remaining empty drums

UN1A2/Y1.4/1 1 5/94

1.4/1.1/1.1 MM / 208 L

need X
for solids

UN1A2/X425/S

UN1A2/X346/S/94

UN1A2/Y1-2/100/94

USA GBC 1.1 MM

1430 stop for day
crew rests

RCTs estimate 50%

shortest completion

1522 package up bagged PPE & rad items into 2 drums

1530 1 ss-gal w/ "Hotline PPE, Rad Items F003 F005"
July 26, 2001

1 ss-gal w/ "Hotline PPE F003 F005"
July 26, 2001

David Milligan got word end of day that he has
to spend all day Monday in Safety Leadership Training

RCTs need to bag up PPE every other bag to
help fully fill waste drums

1910 Depart drum C

Friday 7/27/2001

MONDAY
30 JULY 2001

PROJECT NO.

BOOK NO.

153

0620 arrive @ dorm C	Jeff Vinceli	John Pennington
0655 arrive @ RMA D	Curtis Ohi	Jessie Thompson
0715 Jeff v.: Safety Briefing	Patrick Morris	Jim Fisher
254 continue shotblasting	Dan Koelken	Donald Cooper ²⁵⁴
Level C - Full-Face PAPR, dbl hearing	Mike Withers	Morris Gulca ²⁵⁴
Heat Stress, Windy.	Mike LeRum	Victor Ramirez ²⁵⁴
113 begin off-loading parts & equipment from mezzanine	Mike VanDillen	Rick Crews
Level C To PAPR	Albert Pearson	
Wash Postings. More in crane	Jesse Cisneros	
Hot Spot in Gallery viewing area.	Craig Lyons	
Powder-activated tool changes. ^{drop in} water		
0730 Tool Box Topic for week (Pennington)		
Lock out / Tag out		

0800 Joel wants estimate of production rate for shotblast
I discuss briefly w/ Patrick Morris. Many variables.
guess about 1 sf/min of actual work. This would mean about 60 sf/hr.
However, there is moving hoses and stuff so figure 50 sf/hr.
Because of lengthy safety briefings, time to doff and don ^{heat stress} breaks,
assume 4 hours of actual work time (2 in morning, 2 in afternoon)
∴ figure about 200 sf/day

0845 Issue: The concrete verification samples were originally meant to be
indicators of shotblasting completeness. Now, however, the plan is to
shotblast just enough to reach red release levels, and so there could be
a lot of paint left on the concrete. We might be able to shotblast just
the IT CAD location and sample there. If so, can we then dispose
the east pad as LLW? Need to ask Jeff. Work continued to Page _____

NATURE

DATE

CLOSED TO AND UNDERSTOOD BY

DATE 8-77 WITNESS

Work continued from Page _____

0912 freezer is cold but ice has melted, PICs bottles unfrozen too.

Find out ^{where} ~~why~~ these CADD locations are

25400525 NW Bay

25400542 SE Bay

25400516 NE ~~Bay~~ ^{Pad}where is 25400562 NE Pad ^{to} is clean

Shotblast workers switched out first drum this morning

Total
VOCs TPH PCBs RAD

25400516-vi ✓

Concrete

25400525-vi ✓

25400542-vi ✓

25400545-vi ✓

25400549-vi ✓

25400559-vi ✓

25400563-vi ✓

25400000-vi ✓

3400m
VOCs1-1
Ammon1-1
Ammon-x500m
PO-7

equipment missets

25400548

25400548-MS/MSD

Seal

25

Work continued to Page _____

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WITNESS

DATE

56 TITLE

Work continued from Page _____

7/31/01 continued

PROJECT NO.

BOOK NO.

1350 Dave McHigam preps to sample 25400516

1400 25400516 collected: 1 4-oz (VOCs)

1430 Gina Cook visits w/ Rob Jensen and John Davies

1540 sample 25400563 collected 1 4-oz (VOCs) 1 4-oz (TPH) 2 500-ml (res)

1720 return to form C, process samples

ATRIC BUDERY PRODUCTIONS CHICAGO 60608 Made in USA

Work continued to Page _____

SIGNATURE

/s/ Signature on file

DATE

7/31/01

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/s/ Signature on file

DATE

6-80

WITNESS

DATE

02 AUG 2001

Work continued from Page

0530 arrive @ dorm C	0700 arrive @ RMA	Kevin ^{Cook} Olsen	Patrick Morris
107 Angela leads safety briefing		Roger Wolfley	254 Curtis Obi
113 clean safety glasses		Jessie Monje	John Davies
RWP, Level C, stairs-hand rails		Jim Fisher	Angela Ray
heat stress, backup alarm or sputter		Rick Crows	254 Jessie Cosneros
man lift		254 Dave Milligan	254 Mike Vandillen
1100 - ²⁵⁴ laborers, iron workers, jim fisher ice		254 Johnny Brooks	Mike Withers
to be		254 Donald Cooper	Mike LeRoy
254 RWP 20 - break down, hepa vac		254 Morris Guice	Dan Koelker
RWP 10 - no full face,		Victor Ramirez	Craig Lyons
heat stress breaks, fluids		Maurice Cove	John O'Donoghue
slip trip fall		Maria Santillanes	
Level C w/ full face PAPR in CA			

2-4 Dean Milligan reads 254 demos PTHR

Roger Wolfley reads 113 PTHR

Angela today/Gina next week/Garlen after

254 Plan - suit up

Final Vibrate

branch system, seal up dnm + 2

Remove seal hoses

Sweep up the hepa vac

0800 Fill 2 dnm's w/ 254 Hotline PPE

move to MWAA (see pg 200)

1835 remove cam of GE Long-Life Grease

move nm-red lead to HW, reliable

Chair w/ Craig

re: seal excar. depth
+ backfill if needed
1500'

116000 w/ Hammer

TV INDUSTRY PRODUCTIONS CHICAGO 19868 Made in USA

NATURE

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/s/ Signature on file

DATE

6-81

WITNESS

DATE

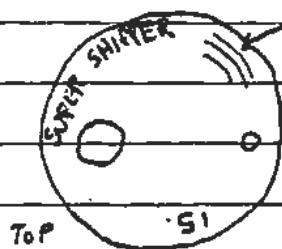
8/2/2001 Continued

15-gallon capacity black plastic drum

Bergen Barrel & Drum Co.

Kearny N.J.

201 998 3500



(U) IH2/Y60/S/O1
(N) USA/M4250

Bergen Barrel & Drum Co.
201 998 3500



SUPER SHIPPER, KEARNY N.J.

There are 3 15-gal Cap. Drums in H/WAA

"6/14/2001 Air-Cooled Coolant D004" ~4 gal

Contents - 1/2 in 15-gal drum (no inner bucket) ~~about 1/2 in can~~

"June 04 2001 Lead-Plat Anti-Seize Compound No. 250" Net Wt. 1 Lb.

Contents in an open-top (no lid) white 5-gal bucket (no (N) code)
a half-filled 1-lb. tin can (approx 1/2 pint or 1 cup cap.)

"August 02 2001 Non-rad Lead (Bricks, Pipe Collars)

15-gal drum approx 1/3 filled (~100 lbs) w/ plastic-bagged item

There is 1 55-gal Cap. Drum in non-haz AA

"can 254 Oils 5/30/2001 • 0.4 l. trolley oil

6 l. compressor oil

2 gal hoist oil

} ~4 gal

k continued from Page _____

MONDAY
6 AUG 2001

Time of RMA

Time of RMA

Score of Work (Pennington)

254: move skidblast to 113

113: red-items in mezzanine

disassembly bay

254: move waste drums to MWA

general cleanup for shed

remove loft materials

(move in wood box 4x8')

Daily Safety Briefing (Cook)

254: Forklift - back-up hazards, line of sight

w/ operator, RMA posting (back still CA),

Follow postings Level 2 not in CA,

Weather hazards - lightning, heat stress,

CPR/first aid.

3: Continue moving high road items

Sawyer lift, PPE level C,

Follow postings, heat stress,

Rx medication

3 Tool box report (Pennington)

Patrick says 113 shuts down end of week.

To remove rails, ~ 6" max between rails, up to 8" between rail & crevice

concrete will be broken up & removed w/ hoe-ram. Drains will be broken

removed to top of sub-slab, grouted if open, disposed as MW

Rep to move 2 55-gal drums and 2 25-gal drums to MWA

BINDER PRODUCTIONS CHICAGO 80000 Made in USA

Work continued to Page _____

/s/ Signature on file

DATE 8/6/01

SE TO AND UNDERSTOOD BY

DATE

6-83

WITNESS

DATE

Verification soil re-sample

WEST TRAIL 110-0700-0001 100

Work continued from Page _____

0950 drums moved to MWA, forklift (rice crews) now moving
shotblast to 113.

1300 Harry Perry and Adam Daegren arrive

Lat insulation is ok for PCBs, no rad yet

670 mm composite of wood floor

180 mm spill area, wood floor

sampled and
found

no VOLS

3.8 mg/l Toluene Antifreeze

no SVOLs

1430 excavate another 6-12" from SW Pad Opening, collect
re-sample 25400548-V2

1440 collect equipment rinseate blank 25400001-V1

5

20

25

SIGNATURE

/s/ Signature on file

DATE

8/6/01

DISCLOSED TO AND UNDERSTOOD BY

/s/ Signature on file

DATE

6-84

WITNESS

DATE

TITLE

ork continued from Page _____

WEDNESDAY
7 AUG 2001

PROJECT NO.

BOOK NO.

161

0535 arrive & form C

John Pennington

Gina Cook

0700 arrive @ MAD

Rick Crews

Patrick Morris

0715 Pennington: 254 SOW

Roger Wolfley

Curtis Ohi

Furnish removing 10ft floor wood

Jessie Monje

Craig Lyons

and wrap in plastic and

Marie Samillanes

Jessie Cisneros

space in HWA.

Maurice Cave

Mike Vandillen

Mark soil areas to excavate and

Victor Ramirez

Mike LeRoy

begin excavation and

David Milligam

Mike Withers

stockpiling of soil

Morris Guice

Don Kuelper

0725 Cook: 254 Daily Safety Briefing

Jim Fisher

Dust control, Level D, long sleeves

Donald Cooper

Do not walk under forklift load.

Wash up hands, arm, face, afterwards

Keep stress - breakers fluids

RMA may change to CA due to

changing scope, be aware of

re-posting of areas.

1830 Rick Smith arrives

Approx 18 large (3'x3' or larger) pieces of plywood removed,

plus smaller pieces, will wait for Harry before proceeding (1-1-1)

0800 done, crew moves on to other tasks

washup then do PTHR to do site setup, etc.

SCIENTIFIC BINDERY PRODUCTIONS CHICAGO 80808 Made in USA

SIGNATURE

ENCLOSED TO AND UNDERSTOOD BY

DATE

6-85

WITNESS

(8/7/01 continued)

PROJECT NO.

BOOK NO.

Work continued from Page _____

1515 (1520) TRUCK ARRIVED. (Hefam & containers arrived earlier)
1530 move plastic-wrapped bundle of Loft floor wood
to Non-haz AA, Patrick and Harry will consider the
PCBs as applied product per 261. Rad is non-issue
for NTS landfill if below sum of fractions

Work continued to Page _____

NATURE

DATE

CLOSED TO AND UNDERSTOOD BY

DATE

6-86

WITNESS

DATE

WEDNESDAY
8 AUG 1987

PROJECT NO.
BOOK NO.

163

1
2

continued from Page

1 arrive @ dorm

1.5 drop off PCBs samples (25400548-V3 soil)
(25400001-V1 eb)

2 arrive @ RMA

- Will remove additional soil (10' around NE pad, railroad end to $\frac{1}{4}$ of fence
Will remove un-needed fencing at west end of compound.

9:50 Fisher in big loader, Milligan as laborer. Begin excavating soil
Craig Lyons has expand area nr. NE Pad, reduced area @ R end.

2nd Ethics Training

WC010000-24	Lt floor Spill	6/28 15:22	SVOCs	PCBs 180 mg/kg	Amount -1260 -1254 -1260 PCBs 1 mg/kg	SVOC Cs-137 0.524 pCi/g 4-Hydroxyphenol 3.9 mg/kg Cs-137 3.53 pCi/g Cs-137 20.4
2.5	Lt floor Composites	16:15	SVOCs	PCBs 670 mg/kg		
2.6	Lt floor Insulation	14:45	SVOCs	PCBs 1 mg/kg		
2.7	DUCTWORK	12:30	SVOCs			
2.8	Anti-Freeze	15:55	SVOCs	Phenol 11.03 Butadiene 22.03		
2.9	Whistle Paster	15:50	SVOCs			

Patrick's instructions for Thursday (he will try to be at site by lunch)
Continue removal of items from mezzanine or dis-assembly bay
De-Post CA to RMA for outer areas
(re post CA at inner doors)
Test De-con of removable rad under plates.

CHERRY PRODUCTIONS CHICAGO 50000 Made in USA

Work continued to Page

ATURE

DATE

TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

6-87

WST TBL 1 VIS: R7/M1: 6:01 AM

THURSDAY
9 AUG 2001

0535 arrive @ NTS

0730 BN/ER Safety Mtg. 0800-0930 BN Diversity Training

1030 arrive @ RMAA

1045 Roger Wolfley leads 170 PTHR

Roger Wolfley

Curtis Oz:

5 will drain water from tarps

Jessie Monje

Gina Look

1100 Victor + Donald leave for Area 6

Jim Fisher

Craig Lyon

Rick Crews

Dan Kuelke

1120 Gina runs daily safety briefing

Larry Haywood

Mike Withers

1154: drain water from tarps

Donald Cooper

10 covering side tarps,

Victor Ramirez

install new blue tarp.

Naurice Cave

113: remove red tarp 1/2 resp.

Maria Santillanes

remove tools + cords 1/2 resp.

remove rats from tarps

15

ladder safety, work zones

hanging vines (non-impacted areas)

steer clear when wearing booties

seek assistance if needed.

20

work-break beginning

25

SIGNATURE

DATE

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DATE

6-88

WITNESS

DATE

- 10-31-01

Soil/Ceritricum Sampling of CAU 254.

Time 1320 Temp 78° Skies clear so! damp from rain on previous day.

Personnel Present: Gares Doyle, Patrice Harris, Mike Floyd, D. Montemur.

Sample locations identified by map overlay made by Craig Lyons & Mike Withers.

Samples were collected using a 500ml Sample auger (~500ml)

Sample Location	Sample #	Time	mass (g)
1	25400570-V1	1330	289.700
2	25400571-V1	1338	789
3	25400572-V2	1348	807.5
4	25400573-V1	1357	800
5	25400574-V1	1405	677.2
6	25400575-V1	1412	822.2
7	25400576-V1	1419	855.2
8	25400577-V1	1425	807.8
9	25400578-V1	1435	793.2
10	25400579-V1	1441	750.5
11	25400580-V1	1445	842.9
12	25400581-V1	1454	800.9
13	25400582-V1	1501	705.3
14	25400583-V1	1509	795.9
15	25400584-V1	1517	733.1
15-2	25400584-V2	1517	830.1

Samples 15 & 15-2 were homogenized in a Stainless Steel Bowl before placing into sample containers.

SCIENTIFIC BONDERY PRODUCTIONS CHICAGO, ILLINOIS Made in USA

Work continued to Page _____

SIGNATURE

/s/ Signature on file

DATE

10-31-01

DISCLOSURE: I AM UNDERSTOOD BY

/s/ Signature on file

DATE

12/4/01

WITNESS

DATE

12/4/01

APPENDIX H
PROJECT ORGANIZATION

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APPENDIX H

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Project Organization H-5

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PROJECT ORGANIZATION

The U.S. Department of Energy, National Nuclear Security Administration Nevada Operations Office (NNSA/NV) Project Manager or Task Manager will serve as the primary point of contact for all activities conducted for this project. The NNSA/NV Project Manager is responsible for seeing that all activities conducted during the project fulfill the obligations of NNSA/NV, as described in the Federal Facility Agreement and Consent Order (FFACO) (FFACO, 1996) and the Nevada Division of Environmental Protection (NDEP) approved work plan. The NNSA/NV Project Manager will plan, authorize, and control project work so that activities are completed in accordance with the work plan on schedule and within budget. The NNSA/NV Project Manager will be the primary point of contact with the NDEP. The NNSA/NV points of contact for this project are as follows:

Project Manager: Janet Appenzeller-Wing
Telephone Number: (702) 295-0461

Task Manager: Sabine Curtis
Telephone Number: (702) 295-0542

The identification of the project Health and Safety Officer and the Quality Assurance Officer can be found in both the Field Management Plan and the Site-Specific Health and Safety Plan. However, personnel are subject to change and it is suggested that the Project Manager be contacted for further information.

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APPENDIX I

COMMENT RESPONSE DOCUMENTATION

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APPENDIX I

TABLE OF CONTENTS

Comment Response Documentation I-5

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NEVADA ENVIRONMENTAL RESTORATION PROJECT DOCUMENT REVIEW SHEET

1. Document Title/Number <u>Closure Report for Corrective Action Unit 254: R-MAD Decontamination Facility, Nevada Test Site, Nevada / DOE/NV-803</u>			2. Document Date <u>February 2002</u>	
3. Revision Number <u>0</u>			4. Originator/Organization <u>Bechtel Nevada ER</u>	
5. Responsible DOE/NV ERP Project Mgr. <u>Appenzeller-Wing</u>			6. Date Comments Due <u>02/07/02</u>	
7. Review Criteria <u>FFACO</u>				
8. Reviewer/Organization/Phone No. <u>John Wong, NDEP</u>			9. Reviewer's Signature _____	

10. Comment Number/ Location	11. Type*	12. Comment	13. Comment Response	14. Accept
Section 2.1.2.5: Heading	M	Correct the typographical error.	Corrected the typographical error.	Yes
Section 2.1.2.9: Last Sentence	M	Subsurface drain lines beyond the foundation were addressed as part of the investigation of CAU 262, rather than CAU 254.	Removed last sentence and added the sentence "These drain lines are included in CAU 262."	Yes
Section 3.3 and all subsections	M	Include corresponding waste profile numbers with appropriate waste streams, where applicable.	Inserted waste profile numbers in Sections 3.3.1.2, Asbestos Containing Materials (ACM); 3.3.4, Mixed Waste (MW); and 3.3.6, Low-Level Radioactive Waste (LLW).	Yes

NEVADA ENVIRONMENTAL RESTORATION PROJECT DOCUMENT REVIEW SHEET

Document Title/Number _____ Revision Number _____

Reviewer/Organization _____

10. Comment Number/ Location	11. Type ^a	12. Comment	13. Comment Response	14. Accept
Section 4.0	M	A description of the protocols used for collecting confirmatory samples of the south decon bay door is necessary, since results of confirmatory sample analysis were used in making waste determination (see waste characterization summary attached to RWAP profile, LRY5MWFY01020). Also, ensure that all media subject to verification sampling have been addressed in the subsections of Section 4.1. (As per the conversation held on February 12, 2002 between John Wong [NDEP] and Trey Kish [BN/ER], this comment was intended for Sections 3.3.4.7, Southeast Decon Bay Door, and Section 3.3 WASTE STREAMS).	A description of the protocols used for collecting confirmatory samples of the south decon bay door was added to section 3.3.4.7. This description states "The door was sampled by randomly drilling approximately 100 holes across the door. Wood shavings were collected and analyzed for RCRA TCLP Metals. Analytical results were used to classify this material as MW that met the LDRs (Appendix B, Mixed Waste Profile)." Additionally, to address the second comment applicable to this section, a table presenting analytical results was included in Appendix B in the Mixed Waste and Low-Level Waste Profiles. Each applicable section also references Appendix B.	Yes

^a - Comment Types: M = Mandatory, S = Suggested.

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