

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Cove Transfer Station - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IX

Subject: POLREP #8
remobe to Cove Transfer Stations
Cove Transfer Station
09XL
Apache County, AZ
Latitude: 36.5580300 Longitude: -109.2174700

To:
From: Maggie Waldon, On Scene Coordinator
Date: 6/15/2013
Reporting Period: 6/10/2013-6/14/2013

1. Introduction

1.1 Background

Site Number:	09XL	Contract Number:	EP-S9-12-01
D.O. Number:		Action Memo Date:	9/15/2012
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	6/10/2013	Start Date:	6/12/2013
Demob Date:		Completion Date:	
CERCLIS ID:	NNN00906016	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time Critical Removal: Uranium

1.1.2 Site Description

The Site consists of two transfer stations located in the Cove Chapter on the Navajo Nation Indian Reservation. The Cove Transfer Stations are 2.2 miles apart and located on opposite sides of Navajo Route 33. The geographic coordinates for the approximate center of the area of concern of Transfer Station 1 (TS1) is Latitude: 36° 33' 41.00" N, Longitude: 109° 13' 00.00" W. The geographic coordinates for the approximate center of the area of concern of Transfer Station 2 (TS2) is Latitude: 36° 35' 03.00" N, Longitude: 109° 12' 04.00". TS1 occupies approximately 4 acres of land consisting primarily of undeveloped, open grazing land with a single-family residence located on the northern end with vacant land and a second single family residence approximately 200 feet farther to the north. The Cove Day School is located 250 feet from the southernmost corner of TS1. TS2 occupies approximately 2.5 acres of land consisting exclusively of undeveloped, open land, bordered by Navajo Route 33 to the east and vacant land to the north, west, and south. Land use of TS2 is exclusively open grazing land.

1.1.2.1 Location

The geographic coordinates for the approximate center of the area of concern of Transfer Station 1 (TS1) is Latitude: 36° 33' 41.00" N, Longitude: 109° 13' 00.00" W. The geographic coordinates for the approximate center of the area of concern of Transfer Station 2 (TS2) is Latitude: 36° 35' 03.00" N, Longitude: 109° 12' 04.00".

1.1.2.2 Description of Threat

Portions of the Navajo Nation are on geologic formations rich in radioactive uranium ores. Beginning in the 1940s, widespread mining and milling of uranium ore for national defense and energy purposes on Navajo tribal lands led to a legacy of abandoned uranium mines. This Site is one of approximately 520 AUMs located on the Navajo Nation. Nearby residents have expressed concern to the Navajo Nation Environmental Protection Agency (NNEPA) regarding the potential for wind-blown and water-borne radioactive particles to migrate from the Site and impact their health as well as the health of their livestock and the environment.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

During a site inspection at TS1 on July 9, 2004, and during a site inspection at TS2 on October 19, 2005, both performed by the Navajo Nation Environmental Protection Agency (NNEPA), gamma radiation activity (gamma activity) counts greater than two times the NNEPA-referenced background level of 14 microroentgens per hour ($\mu\text{R/hr}$) were detected at multiple locations throughout each transfer station site. Based on these results, in 2011 the NNEPA requested assistance from the EPA in performing a removal assessment of TS1 and TS2 to determine the nature and extent of the contamination for the purpose of mitigating any potential impacts to human health and/or the environment.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The EPA Emergency Response Section is conducted a CERCLA removal action of uranium mine waste from two former transfer stations located in the Cove Chapter of the Navajo nation. EPA removed most of the waste from TS1 and moved it to TS2. The waste at TS2 was excavated and consolidated into several stockpiles. The stockpiles were constructed to a 4:1 ratio and stabilized with soil sealant, fenced, and warning signs were placed on the perimeter fencing. This removal began on September 2012 and was not completed due to finding previously undetected contamination. EPA demobilized off the site November 2012. A second action memo increasing the ceiling amount was approved in June 2013. EPA and the removal contractors remobilized on June 10, 2013. Removal action commenced on June 12, 2013.

2.1.2 Response Actions to Date

See PolReps 1-7

June 10, 2013:

Began receiving equipment and operators on June 10, 2013.

START: Calibrate Radeco H-810 air sampler and performed background air sampling at TS1S. Performed background gamma counts at Cove Chapter House in same locations previously used.

June 11, 2013:

Began receiving equipment and operators on June 11, 2013

START: Calibrated remaining H-810 air sample pumps and performed daily QA/QC on meters. Performed Source and background control counts for Ludlum 2241-2 meter with 44-20 and 44-9 detectors. Source and Background control counts for Ludlum 3030. Set up air sampling program. Perform preliminary scans in TS1-N-06. Prior to excavation, gamma counts in the 40-100 kilo counts per minute (kcpm) are present on surface. These counts correlate to an activity concentration of approximately 5 to >20 pCi/g for Radium 226 (Ra-226). Delineated excavation area in TS1-N-06.

Set up personnel scanning program using Ludlum 2241-2/44-9 for workers leaving the exclusion zone. Performed preliminary scans in TS1-N6. Prior to excavation, gamma counts in the 40-100 kcpm are present on surface. These counts correlate to an activity concentration of approximately 5 to >20 pCi/g for Radium 226 (Ra-226). Delineate excavation area in TS1-N-06.

Set up daily upwind, downwind, and work zone air sampling locations for gross alpha and beta activity. All derived air concentrations (DACs) for gross alpha are below allowable limits for Ra-226 on first count. Gross beta counts below all applicable limits.

Performed perimeter dust monitoring for particulate matter less than 10 microns (PM10).

June 12, 2013:

Began excavation of materials from TS1-N6, approximately 252 yds³ excavated.

Began transportation of materials to TS2, approximately 192 yds³ transported.

Began water transfer to site for dust suppression and compaction.

START: Performed Daily QA/QC on all instruments. Air samples from previous days indicated no exceedance of applicable DACs for gross alpha or gross beta. Upwind, downwind, and work zone air sampling performed for gross alpha and beta activity. All derived air concentrations (DACs) are below applicable limits. Downwind and work zone dust monitoring for PM10. Time weighted average (TWA) dust concentrations less than stipulated action levels.

Preliminary scans in TS1-N2, TS1-N3, TS1-N4, and TS1-N5 were performed. Prior to excavation, gamma counts in the 35-100 kcpm are present on surface in these areas. These counts correlate to an activity concentration of approximately 3 to >20 pCi/g for Radium 226 (Ra-226). Delineated elevated areas for excavation. Scan TS1-N7, only one small area (approx. 100 sq/ ft.) delineated for excavation.

Perform preliminary clearance of east half of TS1-N-06. All gamma counts in east half below 35 kcpm.

Perform scan of potential borrow area north of TS1-N. Counts in most areas are less than 32 kcpm, indicating it is suitable for use as fill.

June 13, 2013:

Continue excavation of materials from TS1-N6, approximately 454 yds³ excavated.

Continue transport of materials to TS2, approximately 420 yds³ transported.

Continue water transfer to site for dust suppression and compaction.

START: Performed Daily QA/QC on all instruments. Count previous days air samples, no exceedance of

applicable DACs for gross alpha or gross beta. Upwind, downwind, and work zone air sampling performed for gross alpha and beta activity. All derived air concentrations (DACs) are below applicable limits. Downwind and work zone dust monitoring for PM10. Time weighted average (TWA) dust concentrations less than stipulated action levels.

Preliminary clearance of west half of TS1-N6. Some small elevated areas remain and are delineated for excavation.

June 14, 2013:

Continue excavation of materials from TS1-N6, approximately 420 yds³ excavated
Continue transport of materials TS2, approximately 336 yds³ transported.
Continue water transfer to site for dust suppression and compaction.
Continue forming repository material at 4:1 slope, material excavated at TS2 estimated 525 yds³.
Daily total of estimated material excavated = 954 yds³.

START: Performed Daily QA/QC on all instruments. Count previous days air samples, no exceedance of applicable DACs for gross alpha or gross beta. Upwind, downwind, and work zone air sampling performed for gross alpha and beta activity. All derived air concentrations (DACs) are below applicable limits. Downwind and work zone dust monitoring for PM10. Time weighted average (TWA) dust concentrations less than stipulated action levels.

Perform Final Gamma Activity scan at TS2-3 using USEPA's Rapid Assessment Tool (RAT). Collect 5 confirmation soil samples from this area. Measured gamma activity is generally at or slightly above background levels and correlates to approximately 0.7 to 3 pCi/g. All removal work is completed in this zone.

Delineate excavation area TS2-4. Approximately 1600 sq. ft. of elevated area (60 cu. yd. at 1-foot assumed depth).

Preliminary clearance scan of west half of TS1-N6. Some small elevated areas remain. Removal work is still in progress in this area.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Not Applicable

2.1.4 Progress Metrics

Cove Transfer Stations Removal Volumes to Date

Date	Truckloads	Excavated Volume*	Transported TS2 Volume*
6/12/2013	16	252	192
6/13/2013	35	545	420
6/14/2013	28	420	336
6/15/2013	33	476	396

*12 yds³/truckload

2.2 Planning Section

2.2.1 Anticipated Activities

ERRS will continue to excavate in TS1-N6 and transport contaminated material to TS2. START is scanning

2.3 Logistics Section

All logistical issues are being handled by the ERRS contract. No logistical issues at the moment.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

The START and PST are jointly overseeing site safety. The START contract has an excavation area air surveillance plan in place that involves the total particulate monitoring and sampling for dust contaminated with alpha radiation. The samples collected for alpha radiation are countered several times over a 48 hour period in Ludlum Model 3030 wipe counter for alpha radiation. By counting over a 48 hour period, activity due to radon can be accounted for. The action level for the monitoring is 5000 µg/m3 and 10% of the derived air concentration of the isotopes of concern. The air surveillance data has documented that the action levels have not been exceeded. No personal sampling is being conducted.

2.5.2 Liaison Officer

OSC Waldon is the the Liaison Officer with the Tribe.

2.5.3 Information Officer

N/A

3. Participating Entities

NNEPA is the only participating agency for this site.

4. Personnel On Site

USEPA OSC: Waldon 6/10/2013-6/21/2013

START: Two START

ERT: 1

ERRS: 1 RM, 1 PAS, 11 laborers/equipment operators

PST: 3 PST (6/10/2013)

5. Definition of Terms

CERCLA: Comprehensive Environmental Response Compensation and Liability Act of 1980

DAC: Derived Air Concentration

EPA: United States Environmental Protection Agency

ERRS: Emergency and Rapid Removal Services contractor (EQM, Inc.)

µg/hr: Micrograms per hour

µR/hr: Microrentgen per hour

NNEPA: Navajo Nation Environmental Protection Agency

OSC: On-Scene Coordinator

PST: United States Coast Guard Pacific Strike Team

START: Superfund Technical Assessment and Response Team contractor (Ecology and Environment, Inc.)

TDD: Technical Direction Document

TO: Task Order

TS1: Cove Transfer Station 1

TS2: Cove Transfer Station 2

TWA: Time Weighted Average

6. Additional sources of information

6.1 Internet location of additional information/report

website located at www.epaosc.org/covetransferstations

6.2 Reporting Schedule

The next Polrep will be on June 19, 2013

7. Situational Reference Materials

Photos in image section.

