

040-08907

UNITED NUCLEAR CORPORATION



P.O. Box 3077
Gallup, New Mexico 87305-3077

Telephone: (505) 905-6651
Fax: (505) 905-6654

March 31, 2015

Mr. Andrew Persinko, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management
Programs
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
#2 White Flint, Mail Stop T8 F-5
Rockville, MD 20852-2738

Re: Annual Land Use Report for 2014

Dear Mr. McConnell:

The above report is submitted, pursuant to our NRC Source Materials License No. SUA-1475, Condition 31.

Sincerely,

A handwritten signature in cursive script that reads "Max Chischilly, Jr.".

Max Chischilly, Jr.
Radiation Safety Officer

DY:

Enclosure

Cc: Jack E. Whitten, NRC Region IV
Joe Davis, GE
Roy Blickwedel, GE
Tom McLaughlin, NRC



ANNUAL LAND USE SURVEY REPORT FOR 2014

UNITED NUCLEAR CORPORATION

LICENSE NO. SUA – 1475

CONDITION NO. 31

MARCH 31, 2015



SURVEY OF LAND OWNERSHIP AND USE WITHIN TWO-MILE RADIUS OF MILL SITE

UNITED NUCLEAR CORPORATION
License No. SUA-1475
Condition No. 31

1.0 Introduction

This report has been prepared pursuant to License Condition 31 of United Nuclear Corporation's License No. SUA – 1475. The information submitted in this report was acquired from the master title plate published by the Bureau of Land Management. United Nuclear Corporation maintains the surface ownership records. The map is a copy of the USGS Quadrangle of Hardground Flats, Oak Springs, and Churchrock, the photo revised in 1979. United Nuclear Corporation's Radiation Safety Officer performed the land use survey.

2.0 Area Ownership and Use

Reference the attached map (figure 1) for location in regards to Mill Site.

Area:	Owner:	Usage:
Section 1	Navajo Tribe	Grazing and well monitoring
Section 2*	United Nuclear	Mill & Tailings site, one employee homesite and well monitoring.
Section 3	Navajo Tribe	Grazing and well monitoring
Section 4	Indian Allotted	Grazing
Section 6	Indian Allotted	Grazing
Section 9	Navajo Tribe	Grazing
Section 10	Indian Allotted	Grazing, eleven homesite, and well monitoring
Section 11	Navajo Tribe	Grazing
Section 12	BLM, A, Etah, Etal	Grazing
Section 13	Navajo Tribe	Grazing
Section 14	Indian Allotted	Grazing
Section 15	Navajo Tribe	Grazing



Area:	Owner:	Usage:
Section 33	Navajo Tribe	Grazing
Section 34	BLM (western portion) United Nuclear (eastern portion)	Grazing
Section 35	Indian Trust for Navajo Tribe	UNC'S Remedial Northeast Churchrock Mine Site is located in this section.
Section 36	United Nuclear	Well monitoring, and pumping/extraction
Map Northern Portion of 2 mile radius	Navajo Reservation	Grazing, 22 home sites (house and hogan but 4 sites are unoccupied) and former Kerr McGee's remedial Navajo Mine Site is located in this area.
Section 31	Indian Allotted	Grazing

*Additional Note for Section 2:

The Mill has been decommissioned and has been cleaned to meet releasable standards for unrestricted use. Final remediation activity on the tailings area was completed in 1996 with the exception of evaporation pond area, currently used for ground water remediation. Final cover radon flux test result was reported in the "Report On Radon Emanation Testing Of Final Radon Cover Over UNC'S Church Rock Tailings Site, Docket No. 40-80907" submitted on January 3, 1997.

3.0 Current ongoing groundwater tailings seepage remediation activity

- 1) Sample/monitor wells on Sec. 2 and 36 (UNC), Sec. 1 and 3 (Navajo Tribe) and Sec. 10 (Indian Allotted) on a quarterly basis.
- 2) Continual pumping/extraction of wells RW-11, RW-16, RW-17, RW-A, PB-2, NW-4 and NW-2. These wells are on UNC's Sec. 36 to enhance the remedy for cut off and containment of the migrating Zone 3 seepage impacted water.
- 3) Monthly monitoring (i.e. measure field parameters, in-house bicarbonate and chloride titration test) of wells NBL-2, PB-2, PB-3, PB-4, RW-A and NW series (1 thru 5), MW-6 and MW-7 to track the northern most migration of the seepage impacted water in Zone 3, Sec. 36.



4.0 Well ID, Use, Location and Formation

Well ID:	Use:	Location:	Formation:
United Nuclear	Domestic (Active)	Sec. 2-Mill Site	Westwater
Circle Wash	Domestic/ Livestock (Inactive)	Section 14	Alluvium
Unknown ID Abandoned	No Known Use	Section 11	Alluvium
J.E. Soper#1 Abandoned	No Known Use	Section 1	Two Wells- Members Mancos
BLM – 2	Monitor (Inactive)	Section 12	Alluvium
14T – 586 (Friendship well # 1)	Livestock (Active)	N.I.R. N Part of map	Lower Gallup
NR – 1	Monitor (Inactive)	N.I.R. N Part of map	Alluvium
15K – 303	Livestock (Active)	N.I.R. NE Part of Map	Upper Gallup

5.0 Significant changes or events which took place in 2014 are as follows:

- 1) No change under item 2.0 (Area ownership and Use) and item 4.0 (Well ID, Use, Location and Formation). Total current home site is thirty-four within the two mile radius of mill site.



- 2) After the August 2009 remedial construction activity (i.e. Interim Removal Action) on UNC'S NECR Mine Site in Sec 35 (Indian Trust Land) and adjacent Navajo Reservation Land; the following pertinent events or changes have since taken place in 2014.
- An active bioventing system was installed consisting of 64 air injection wells, 5 performance monitoring points, 2 MNA points, and 2 vapor migration monitoring wells between May 14 and June 28, 2013 to remediate underlying soil impacted with hydrocarbon pre dominantly diesel range organics (DRO) and/or total petroleum hydrocarbons (TPH) to 1000 mg/kg. Soil/rock impacted area was observed during the above IRA project (approximately 4,00 cubic yards of impacted soil/rock with clean overburden was excavated, transported to south end of NECR-1 pad and placed on/covered with plastic sheeting). Entire excavation was not possible due to TPH greater than 1000 mg/kg extending vertical approximately 15 feet to over 30 feet below ground surface (bgs) almost entirely within bedrock, and lateral extent was confirmed to an area within approximately 400 feet of the NECR-1 pad. Baseline MNA soil sampling, air injection pressure test, on/off site system construction, baseline soil vapor migration, MNA sampling, system testing and startup was conducted/performed between June 20 to November 13, 2013. The first quarterly performance monitoring and MNA sampling was performed November 17- 23, 2013 and monitoring of the bio venting system were performed on a quarterly schedule during 2014, from March 10 to November 24, 2014.
 - All radiation protection monitoring and on-site Geotech lab work activity on the NECR Mine Site Removal Action (RA) Pre-Design Studies (PDS) Sampling and Analysis Plan project was completed in April, 2014. Radiation exposure measurement to UNC employee's contractors and the general public were well below permissible levels (see also 2014 Land Use Report and 2015 ALARA Report for additional information).

FIGURE 1



NOTE: (34) TOTAL HABITABLE HOUSING OR HOMESITES WITHIN TWO MILE RADIUS