

## **Appendix A**

**DOE and NRC Correspondence, April 2010**

This page intentionally left blank



Department of Energy  
Office of Legacy Management

APR 01 2010

Mr. Richard Chang  
U.S. Nuclear Regulatory Commission  
11545 Rockville Pike #2  
Mail Stop T8 F5  
Rockville, MD 20852-2738

Subject: Soil Contamination Area at the Monument Valley, Arizona, Site

Dear Mr. Chang:

The purpose of this letter is to inform the U.S. Nuclear Regulatory Commission (NRC) of a recent, unexpected discovery of radiologically contaminated soils at the U.S. Department of Energy, Office of Legacy Management (DOE-LM), site at Monument Valley, Arizona.

DOE removed radioactive tailings from Monument Valley, a former uranium millsite, in 1994. Nitrate and ammonium used during the milling process remain in a shallow ground water plume spreading from the former millsite area. DOE-LM is conducting pilot studies of remediation alternatives for contaminated soil and ground water at the site in collaboration with the University of Arizona. The pilot studies are investigating remedies that rely on natural and enhanced attenuation processes.

As part of the ongoing studies, sampling of stained soils in an area of the site associated with the former evaporation ponds were found to have elevated concentrations of uranium and vanadium. As a follow up to this discovery, DOE conducted radiological scans of the area where the stained soils are occurring. The initial scanning, completed last week, detected loose surface radiological contamination (location map enclosed) at levels up to 37,000 dpm/100cm<sup>2</sup>. This exceeds the loose contamination levels of 1000 dpm/100cm<sup>2</sup> specified in 10 CFR 835, Appendix D, and the Legacy Management Radiological Control Manual, Table 2-2.

DOE is actively evaluating this issue to determine the nature and extent of this material and how it materialized. Additional soil samples have been collected and submitted for isotopic analysis, and the area with elevated readings (within the fenced area of the site) has been marked with barriers and sign postings to further restrict access to this area. With additional field investigations and analytical results pending, DOE will continue to inform you of additional information as it becomes available.

2597 B 3/4 Road, Grand Junction, CO 81503

99 Research Park Road, Morgantown, WV 26505

1000 Independence Ave., S.W., Washington, DC 20585

11025 Dover St., Suite 1000, Westminster, CO 80021

10995 Hamilton-Cleves Highway, Harrison, OH 45030

955 Mound Road, Miamisburg, OH 45342

232 Energy Way, N. Las Vegas, NV 89030

REPLY TO: Grand Junction Office

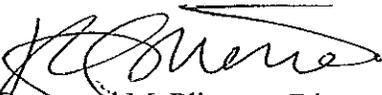
APR 01 2010

Mr. Richard Chang

-2-

Please contact Tom Pauling (970) 248-6048 or me at (970) 248-6091 if you need additional information.

Sincerely,

  
Raymond M. Plienness, Director  
Office of Site Operations

Enclosure

cc w/enclosure:

L. Benally, Jr., Navajo UMTRA  
E. Rich, Navajo Nation Environmental Protection Agency  
M. Roanhorse, Navajo UMTRA Program  
D. Taylor, Navajo Nation Department of Justice  
File: MON 30.10 (DOE)

cc w/o enclosure:

R. Bush, DOE-LM  
T. Pauling, DOE-LM  
C. Carpenter, Stoller (e)  
D. Gail, Stoller (e)  
M. Hurshman, Stoller (e)  
J. Legare, Stoller (e)  
D. Miller, Stoller (e)  
J. Siler, Stoller (e)

April 28, 2010

Mr. Raymond M. Plieness, Director  
Office of Site Operations  
U.S. Department of Energy  
2597 B  $\frac{3}{4}$  Road  
Grand Junction, CO 81503

SUBJECT: SOIL CONTAMINATION AREA AT THE MONUMENT VALLEY, ARIZONA SITE

Dear Mr. Plieness:

U.S. Nuclear Regulatory Commission (NRC) staff has reviewed your letter dated April 1, 2010. As discussed in your letter, please provide additional information, when it becomes available, regarding the nature and extent of the reported soil contamination, and how it materialized. Please confirm that areas not discussed in your April 1, 2010 letter are not impacted. Without this information, NRC staff is unable to complete its review. Specifically, NRC staff would like to compare measured values to previous U.S. Department of Energy commitments made in the remedial action plan for this site.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this letter, please contact Richard Chang, either by telephone at (301) 415-7188, or by e-mail at [Richard.Chang@nrc.gov](mailto:Richard.Chang@nrc.gov).

Sincerely,

**/RA by Robert Johnson for/**

Lydia W. Chang, Branch Chief  
Special Projects Branch  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

Docket: WM-70

cc: See next page

Mr. Raymond M. Plieness, Director  
Office of Site Operations  
U.S. Department of Energy  
2597 B ¼ Road  
Grand Junction, CO 81503

SUBJECT: SOIL CONTAMINATION AREA AT THE MONUMENT VALLEY, ARIZONA SITE

Dear Mr. Plieness:

U.S. Nuclear Regulatory Commission (NRC) staff has reviewed your letter dated April 1, 2010. As discussed in your letter, please provide additional information, when it becomes available, regarding the nature and extent of the reported soil contamination, and how it materialized. Please confirm that areas not discussed in your April 1, 2010 letter are not impacted. Without this information, NRC staff is unable to complete its review. Specifically, NRC staff would like to compare measured values to previous U.S. Department of Energy commitments made in the remedial action plan for this site.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this letter, please contact Richard Chang, either by telephone at (301) 415-7188, or by e-mail at [Richard.Chang@nrc.gov](mailto:Richard.Chang@nrc.gov).

Sincerely,

Lydia W. Chang, Branch Chief  
Special Projects Branch  
Decommissioning and Uranium Recovery  
Licensing Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

Docket: WM-70

cc: See next page

Distribution: JWhitten, RIV SCohen TLancaster BVonTill DOrlando  
KMConnell

**ML101170561**

<b>OFC</b>	DWMEP	DWMEP	DWMEP	DWMEP
<b>NAME</b>	RChang	SGiebel	BGarrett	RJohnson for LChang
<b>DATE</b>	4/27/10	4/27/10	4/27/10	4/ /10

**OFFICIAL RECORD COPY**

cc list:

T. Pauling, DOE

R. Bush, DOE

L. Benally, Jr., Navajo UMTRA

C. Holiday, Navajo UMTRA

E. Rich, Navajo Nation Environmental Protection Agency

M. Roanhorse, Navajo UMTRA Program

D. Taylor, Navajo Nation Department of Justice

This page intentionally left blank