

January 9, 2015

via email and FedEx

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington DC, 20555-0001

RE: Source Materials License SUA-1341, Docket Number 040-08502  
Willow Creek Uranium Project  
NRC Inspection Report 040-08502/13-002 and 040-08502/14-001- Reply to Notice of  
Violation

Dear Sir/Madam:

On July 31-August 3, 2013 and May 13-15, 2014 the NRC conducted an “announced routine” inspection and an “unannounced routine” inspection respectively at the Willow Creek Project. As described in the Inspection Report and Notice of Violation dated December 11, 2014, two violations of NRC requirements were identified. The violations were identified as Severity Level IV, which are characterized as less serious, but more than a minor concern.

Attached, please find Uranium One USA, Inc’s response to the Notice of Violation. If you have any questions, or need additional information, please contact me by phone at (307) 233-6330 or email at [scott.schierman@uranium1.com](mailto:scott.schierman@uranium1.com).

Sincerely,



Scott L. Schierman  
Sr. Health Safety & Environmental Specialist  
Uranium One Americas

Cc NRC Regional Administrator, Region IV  
Linda Gersey, NRC Region IV  
Donna Wichers – President Uranium One USA, Inc  
Rick Kukura- Mine Manager  
Ryan Schierman – RSO  
Ron Linton – NRC Willow Creek Project Manager

IE07  
RBM IV

## **Reply to Notice of Violation**

### **Violation (1)**

License Condition 10.9 states, in part, that the licensee shall use a Radiation Work Permit for all work or non-routine maintenance jobs where the potential for significant exposure to radioactive material exists and for which no standard written operating procedure exists. All Radiation Work Permits shall be accompanied by a breathing zone air sample. The Radiation Work Permit shall be issued by the Radiation Safety Officer or designee.

Contrary to the above, on September 18, 2013 and June 20, 2013, work was performed for which there was the potential for significant exposure to radioactive material and for which no standard written operating procedure existed.

Specifically, on September 18, 2013 a yellowcake drum was transferred to the radioactive materials sump and pumped into the white thickener for reprocessing without using a Radiation Work Permit issued by the Radiation Safety Officer or designee. No breathing zone air samples for workers were collected during the drum transfer activities.

Specifically, on June 20, 2013, a Plant Manager allowed a Plant Operator to enter a scrubber tank without using a Radiation Work Permit issued by the Radiation Safety Officer or designee. No breathing zone air samples for workers were collected during the scrubber tank entry.

This is a Severity Level IV violation (Section 6.3)

### **Reason for Violation**

Uranium One would like it noted that the licensee had self identified both occurrences of failure to issue a Radiation Work Permit (RWP) for work which there was the potential for significant exposure to radioactive material and no standard operating procedure existed. Additionally it should be noted that in both instances operations personnel were wearing the appropriate respiratory protection and Personal Protective Equipment (gloves and coveralls) while they were performing the work activities.

Regarding the September 18, 2013 the cause was determined to be a breakdown in communications between operations and radiation personnel. The Irigaray Site Supervisor stated he intended to get a RWP but with other work activities got distracted and failed to contact the radiation group to get a RWP requested prior to operators performing the task. Discussions about this incident with operations personnel indicated it was their understanding that a RWP was required for any activities when the dryer was down and repair activities were initiated. Although airborne uranium sampling were not collected for the September 18, 2013 incident, additional drum transfer activities were scheduled for October 2013 and airborne concentrations from this RWP were assigned to employees performing drum transfer activities on September 18, 2013.

Uranium One would like to clarify that the June 20, 2013 incident involved the Irigaray Site Supervisor not the Plant Manager. The Irigaray Site Supervisor allowed operations personnel to inspect the scrubber tank for scale and or buildup without getting a RWP for these activities. Breathing zone airborne concentrations from numerous prior scrubber cleanup activities were available for radiation personnel to assign to operations personnel performing this task. Again as was the case with the September 18, 2013 incident a communication breakdown between operations and radiation staff appeared to be the case of this incident.

### **Corrective Steps Taken**

Uranium One conducted additional training with all Irigaray personnel to clarify what activities are considered routine and covered by a Standard Operating Procedure and what activities are considered non-routine and require a RWP. This training was completed on October 1<sup>st</sup> and 3<sup>rd</sup>, 2013.

This training was conducted by the Mine Manager, Manager of Mine Site HS&E and the RSO and included discussions on importance of adhering to SOP's, purpose of RWP's and airborne sampling to determine potential employee dose and ALARA practices.

Uranium One determined that disciplinary actions were appropriate in this case to re-enforce the importance of ensuring RWP's are utilized in conjunction with work activities which have the potential for significant exposure to radioactive materials to ensure occupational radiological exposures are maintained ALARA.

### **Date Full Compliance Will be Achieved**

Uranium One was in full compliance with issuance of RWP's for non-routine maintenance jobs with the potential for significant exposure to radioactive materials or tasks for which no effective SOP's and exists on September 19, 2013. Supplemental training conducted on October 1<sup>st</sup> and 3<sup>rd</sup>, 2013 reinforced Uranium One commitment to these radiological practices for maintain occupational exposures ALARA.

### **Violation (2)**

License Condition 9.3, states, in part, that the licensee shall conduct operations in accordance with commitments, representations, and statements contained in the license renewal application dated March 7, 2012, Agencywide Documents Access and Management System (ADAMS Package ML120820095, Supplemental Information ML12082A057).

License Application Section 5.7.2 states, in part, that gamma exposure rate surveys will be performed in areas which are accessible to personnel and which could potentially exceed the criteria for designation and posting as radiation areas. Areas over the 2.0 milliRem/hr administrative limit will be surveyed on a monthly basis.

Contrary to the above, during the months of November 2013 and January through April 2014, no gamma exposure rate surveys were performed in areas posted as radiation areas. Specifically, 21 modular building, were not surveyed on a monthly basis, although all were posted as radiation areas and exceeded the 2.0 milliRem/hr administrative limit.

This is a Severity Level IV violation (Section 6.3).

### **Reason for Violation**

Uranium One would like it noted that the licensee had self identified the violation for failure to perform Gamma Surveys at the Wellfield Modular Building and had performed a write-up of this incident identifying cause and corrective actions on May 6, 2014 prior to the May 13-15, 2014 “unannounced routine” inspection.

Uranium One would also like clarify that gamma surveys were conducted in a portion of the wellfield modular buildings in April 2014 contrary to statements made in the third paragraph of Violation 2. It is also noteworthy that Gamma surveys conducted in September, October and December of 2013 show the highest gamma levels measured at the wellfield modular buildings was 1.7 mR/hr which is below the NRC 5.0 mR/hr posting requirement and the Uranium One 2.0 mR/hr administrative action level and would have permitted quarterly gamma measurements for these areas.

The License Application Section 5.7.2 also states, in part, that gamma exposure rate surveys will be performed in accordance with the guidance contained in USNRC Regulatory Guide 8.30 and under instructions provided in a Standard Operating Procedure (SOP). Regulatory Guide 8.30, Section 2.4 calls for semi-annual gamma radiation surveys unless gamma levels are measured above 0.005 rem (5 millirem) in an hour at 30 cm (12 inches) from the source, at which time these areas are be posted as a radiation area and the gamma survey frequency should be performed on a quarterly basis. Review of SOP HP-2 states gamma surveys should be conducted at least quarterly.

Uranium One had as part of its corrective actions initiated gamma surveys of the wellfield modular buildings but had not completed surveys for all the modular buildings prior to the unannounced NRC inspection. The gamma surveys for all the wellfield modular buildings were finished prior to the completion of the NRC May 13-15, 2014 unannounced inspection.

The cause for the violation was determined to be a lack of communication as the Radiation Technician performing these surveys was instructed by the RSO to use a monthly gamma survey form which did not include the wellfield modular building as areas to be surveyed.

### **Corrective Steps Taken**

Field forms were modified to include the header houses as part of the monthly routine gamma survey. All operating wellfield modular buildings that are above 2 mR/hr are

having gamma levels surveyed on a monthly basis. Additionally all wellfield modular buildings are surveyed for gamma levels on at least a quarterly basis as specified in SOP HP-2.

A compliance calendar detailing all required surveys was developed and implemented which includes a review of field data forms by the RSO or designee to ensure necessary surveys have been conducted.

To clarify frequencies for conducting gamma survey Uranium One will evaluate through the SERP process if Section 5.7.2 of the License Renewal Application should be modified to be consistent requirements of 10 CFR 20 and guidance provided for gamma survey frequencies specified in NRC Regulatory Guide 8.30.

**Date of Full Compliance Will be Achieved**

Full compliance was achieved on May 15, 2014 when gamma surveys were completed for all the wellfield modular building.