

July 5, 2012

**PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-2012-005**

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region IV, Arlington, Texas, staff on this date.

**Facility**

Uranium One USA, Inc.  
907 Poplar Street, Suite 260  
Casper, WY 82601  
Docket No.: 040-08502  
License No.: SUA-1341

**Licensee Emergency Classification**

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

**SUBJECT:** URANIUM CONCENTRATE (YELLOWCAKE) RELEASED UPON HANDLING OF PRODUCT DRUM SHIPPED BY URANIUM ONE USA TO A FUEL SERVICES REFINERY IN ONTARIO, CANADA, RESULTING IN EXPOSURE TO WORKERS

**DESCRIPTION:**

On June 25, 2012, at 10:50 a.m. (CDT), the licensee for Uranium One, a solution mining uranium recovery licensee, notified the Region IV office of an event that occurred on June 23, 2012, involving packaged uranium concentrate (yellowcake) that had been shipped by Uranium One's Willow Creek facility in Wyoming to a fuel services refinery located in Blind River, Ontario, Canada. The NRC was subsequently informed by the Canadian Nuclear Safety Commission (CNSC) that three workers at the Canadian facility were exposed to airborne uranium. This occurred when one of the workers loosened the ring clamp on the drum lid of a 55-gallon drum containing yellowcake. Pressure inside the drum caused approximately 26 kg of yellowcake powder to be ejected from the drum. The fuel services refinery notified the CNSC.

The drum in question was shipped along with other filled drums from Uranium One on May 29, 2012. On June 25, 2012, Uranium One was informed by the fuel services refinery in Canada that the drum was found to be internally pressurized when the lid bolts were loosened on June 23, 2012. Upon further investigation, several other drums from the Uranium One facility were also found to have visible bulging as a result of internal pressurization. In addition, the licensee discovered that five drums in storage at the Willow Creek facility had some indication of pressurization, and appropriate actions were taken.

In response to this event, the Canadian fuel services company will not be opening any more containers of yellowcake from the Willow Creek facility until they can develop a plan to safely sample the material. Uranium One has notified the NRC that it has suspended all shipments of yellowcake until it conducts an investigation to determine the causes of the pressurized drums and implements corrective action.

In response, NRC Region IV plans to conduct additional inspection activities at the licensee's facility.

This information has been discussed with the Canadian Nuclear Safety Commission and the State of Wyoming. This information is current as of 2 p.m. (CDT), July 2, 2012.

**ADAMS ACCESSION NUMBER: ML12187A759**

**CONTACTS:** Vivian Campbell  
817-200-1287

[vivian.campbell@nrc.gov](mailto:vivian.campbell@nrc.gov)

Blair Spitzberg  
817-200-1191

[blair.spitzberg@nrc.gov](mailto:blair.spitzberg@nrc.gov)