

Highlights from the 2011 NRC Uranium Recovery Inspection Program

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Discussions

- 2011 Uranium Recovery Inspection Summary
 - Total inspections
 - Violations
 - Trends
- Event response: Uranium One Special Inspection



2011 Inspections

11 total inspections

4 at operating facilities

5 at facilities in decommissioning

1 at facility in stand-by

1 Special Inspection



2011 Violations

During the past year a total of 6 violations were identified

- Failure to have adequate DOT HAZMAT training (2 identified)
- Failure of employee to survey when leaving a restricted area
- Failure to have 11e.(2) byproduct waste storage bins located in a restricted area
- Failure to provide NRC with copies of excursion and spill reports as required
- Failure to have an alarm to notify wellfield operators that an exceedence has occurred as required by the license application



2011 Inspection Trends

- 1) We continue to cite violations for inadequate DOT HAZMAT training - this is preventable!
- 2) Most other violations come from commitments in a license condition or license application-
KNOW YOUR COMMITMENTS!



Event response: U1 Special Inspection

Notification and NRC Response

- Informed during routine call with regional inspector to discuss timing of upcoming inspection to observe dryer operations (was scheduled for the following week)
- Licensee informed the NRC that the dryer had been shut down after 3 days of operating
- Licensee believed that there was a failure of the sand seal at the bottom of the hearth dryer



Event response: U1 Special Inspection

Notification and NRC Response, cont.

- Licensee operators had seen airborne yellowcake (YC) which had escaped the dryer enclosure but was still within the process building
- At the time of the call, it was unclear if there had been an intake of YC by the operators or a release of YC from the building
- Bioassay samples were not available at the time



Event response: U1 Special Inspection



Notification and NRC Response, cont.

- The NRC and the licensee agreed that this event was not reportable to the NRC by regulation or license requirement
- However, NRC Region IV and HQ management determined that a Special Inspection was warranted per NRC Management Directive 8.3, “NRC Incident Investigation Program”

Event response: U1 Special Inspection

Notification and NRC Response, cont.

- Special Inspection Charter approved Oct 4, 2012
- Region IV inspector on-site Oct 5-6, 2012
- Purpose was to
 - Develop event timeline
 - Assess licensee's cause investigation
 - Independently assess causes and consequences
 - Review corrective actions to prevent recurrence
 - Review for generic implications



Event

- U1 began drying YC on September 30, 2011, with no indication of problems until October 2, when an alarm actuated indicating a loss of negative pressure within the dryer enclosure
- Several dryer components automatically shut down
- The plant operator donned a respirator and entered the area near the dryer and found YC dust coming from the dryer vent into the clean area
- The operator was instructed to turn the induction fan on to restore negative pressure to the dryer enclosure which would stop the YC from exiting through the vent

Event

- Following the incident, U1 determined that the lower sand-seal had failed and caused YC to exit the dryer, enter into the dryer enclosure, then be released through the vents into the process building
- U1 hired experts in hearth dryers to assist in repair of the sand seal and generate maintenance procedures to prevent a recurrence

Event response: U1 Special Inspection

Findings

- Airborne YC had escaped the dryer enclosure and deposited on surfaces within the process building
- Inspector found that U1 had followed all internal procedures appropriately (equipment shut-down, monitoring and clean-up of contamination, exposure determination, corrective actions)
- No releases to the environment and no over-exposures to workers
- Inspector confirmed that U1 did what was necessary to respond to the incident



Any Questions?

