Cameco

CAMECO RESOURCES
Smith Ranch-Highland Operation
Mail:
P.O. Box 1210
Glenrock, WY
82637 USA

Tel: (307) 358-6541
Fax: (307) 358-4533
www.cameco.com

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ATTN: Document Control Desk
Nuclear Regulatory Commission
Washington DC, 20555-10001

CERTIFIED MAIL #7010 1870 002 1233 7929

Reply to a Notice of Violation: Inspection Report 040-08964/13-001

Power Resource's Inc,, d/b/a Cameco Resources (Cameco), received a Severity Level IV Notice of Violation from the Nuclear Regulatory Commission (NRC) on July 26, 2013 based on the failure to prepare a radiation work permit in accordance with SUA 1548 License Condition 9.7. The event at issue occurred January 23, and 24, 2013 and was promptly investigated. The incident was communicated to the NRC January 31, 2013, documented in a Cameco-issued, self-identified violation (SIV) February 4, 2013, and corrective actions were quickly implemented. Therefore, Cameco is discouraged that the NRC chose a Severity Level IV violation in this case, instead of a Non-Cited Violation (NCV) as outlined in the NRC Enforcement Policy. Cameco's response follows, which includes the actions taken proactively by management to assure worker safety, assure compliance with the license requirements, and openly communicate with NRC staff. This response is being provided in accordance with 10 CFR 2.201.

The Notice of Violation provides the following discussion:

> *"During an NRC inspection conducted on April 1-4, 2013 and May 29-30, 2013, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:*
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> *License condition 9.7, states, in part, that the licensee shall follow guidance in U.S. Nuclear Regulatory Commission, Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposure at Uranium Recovery Facilities will be a As Low As Reasonably Achievable (ALARA), (Regulatory Guide 8.31)." Section 2.2, Operating procedures, of Regulatory Guide 8.31, stated, in part, that for work on non-routine jobs when the potential for exposure to radioactive material exists and for which no standard written procedure already exists, a Radiation Work Permit (RWP) should be used.*
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> *In the submittal to the NRC, dated March 20, 2008, Power Resources, Inc, revised Chapter 9 "Management Organization and Administrative Procedures" of the license application. In section 9.7, "Standard Operating Procedures," it states, "in the case that employees are required to conduct activities of a non-routine*

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nature where there is the potential for significant exposure to radioactive materials, and no standard operating procedures exist for the activity, an RWP will be required. The RWP will describe the scope of work, precautions necessary to maintain radiation exposures ALARA, and any supplemental radiological monitoring and sampling to be conducted during the work. The RWP shall be reviewed and approved in writing by the Radiation Safety Officer, Radiation Safety Technician, or a designated supervisor in the absence of the RSO or RST, prior to initiation of the work."

Contrary to the above, on January 23, 2013, two sub-contractor welders failed to work under a RWP while removing overhead beams in the former yellowcake dryer room in the Highlands Central Processing Plant. This work was non-routine with the potential for exposure to residual yellowcake for which no written operating procedure already existed. Consequently, both individuals received intakes of uranium exceeding the action level of 15 micrograms of uranium per liter of urine (ug/L), as confirmed by positive bioassays, while working in this area. The bioassay results were 22.2 and 24.7 ug/L.

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

It should be noted that the "action level" cited by the NRC in the NOV pertains to License Condition 11.2 – which requires documentation of the incident and corrective actions in the Annual ALARA report. At no time was worker safety compromised. The intake of uranium did not exceed 35 micrograms of uranium per liter of urine (ug/L) for two consecutive urine specimens nor did it reach or exceed 130 (ug/L) for any one specimen – the action level prescribed in License Condition 11.3, which requires notifying the NRC.

Reason for Violation/Basis for Contesting Violation or Severity Level

Cameco has been in the process of refurbishing the Smith Ranch Highland Uranium Plant (HUP). As part of the refurbishment some of the existing steel structure was removed to allow room for the placement of two no-emission vacuum dryers.

On January 23 and 24, 2013 two contract welders were using electric impact wrenches to remove bolts from the existing steel beams to allow rigging and lowering of the beams from the second and third floors of the dryer area of the HUP facility. During this process the workers noticed a light yellow dusting on some of the beams, On January 24, the workers reported their observation to the supervisor. The supervisor required the two contractors to leave the area until the area was cleaned. The two contract workers left the area.

On Monday January 28, 2013 two contract workers contacted the Radiation Safety Officer (RSO) with concerns regarding work performed at the HUP Facility. The RSO began investigating the concerns and requested the workers provide a bioassay sample that day. The RSO and investigation team interviewed the workers and the HUP Management staff as part of the routine investigation process.

An investigation team interviewed the HUP Management staff and it was determined that because of the numerous wash downs that had taken place in the dryer area of the HUP facility the HUP project staff did not consider the area "high potential" for radioactive contaminates as outlined in the NRC License application section 9.7. A Job Hazard Analysis had also not been prepared, which should have identified the need for the RWP.

Corrective Actions Taken and Results Achieved

Immediate Actions

- Work in the dryer area was stopped and Cameco employees overseeing the project were asked to provide details of the work in progress.

- Radiation Safety Technicians (RST) went to the HUP Plant to perform surveys on the beams that were removed. The survey results on the beams indicated removable contamination remained on the beams.

- An investigation team was assembled and an investigation began.

- During the investigation the two contractors were interviewed and counseled on the risks of uranium ingestion or inhalation and NRC Regulatory Guideline 8.29 "Instructions Concerning Risks from occupational Radiation Exposure" was provided to each worker.

- Cameco's management team contacted the NRC to communicate the situation.

- Initial and follow-up bioassay samples were taken and through this a dose assessment was completed for each worker.

Corrective Steps to Avoid Further Violations

1. A safety meeting was conducted on January 30, 2013 to discuss stopping work when any worker has a concern.

2. All contractors and Cameco employees who work at the HUP facility participated in the following re-training-
    - Radiation Refresher (as outlined in NRC Regulatory Guide 8.31 section 2.5)
    - Radiation Work Permit
    - Areas of concern
    - Job Hazard Analysis
    - Safety procedures

3. Instituted a requirement that <u>any</u> work conducted on an existing structure in the HUP dryer area during refurbishment activities will require a Radiation Work Permit and a Job Hazard Analysis.

4. Air samplers will run continuously anytime work is commenced during the refurbishment of the project.

5. Work instructions provided to the contractors or the Highland Project team will be documented and sent to the RSO for RSO guidance if needed.

6. A new position was put in place (Coordinator, Safety & Contractors) to ensure compliance and a consistent approach to contractor management and implementation of Cameco Standard Operating Procedures.

Date of full compliance

All corrective actions with the exception of the establishing the new position identified in item 6, were completed by February 21, 2013. The new position was in place May 6, 2013.

Cameco has performed in a responsible and transparent manner leading up to and after the incident in question. Cameco's project management and health physics teams performed their duties to protect worker safety and maintain the integrity of the ALARA program. Additionally, although not required by license, Cameco notified the NRC of incident to advise NRC staff of immediate and planned corrective actions.

In the recent past, NRC has treated this type of concern as an NCV in recognition of a licensee's self-identification process in which preventive and corrective action(s) are taken, as well as to promote a risk-informed, performance-based approach to licensed activities. It is Cameco's position that the prompt actions taken eliminated any risk of further contamination and risks to worker safety. Additionally, the corrective actions to prevent a recurrence have proven effective for the remainder of the Highland uranium plant refurbishment.

Consistent with the NRC Enforcement Policy, a NCV would have been appropriate in this case for the following reasons: Cameco identified the violation; Cameco corrected the violation, implementing corrective actions to prevent recurrence; the violation is not repetitive and as a result of inadequate corrective action, and the violation was not willful.

If you have any questions regarding this response or require additional information, please contact me at 307.316.7588.

Sincerely,

Josh Leftwich,
Director Safety, Health, Environment and Quality

BB/af

cc: D. Mandeville, USNRC
NRC Regional Administrator (Region IV), USNRC
Nancy Nuttbrock, LQD
SR 4.6.4.1
ec: Cameco - Cheyenne