Cameco

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Mr. Doug Mandeville
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
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Rockville MD 20852-2738

CERTIFIED MAIL # 7010 1870 0002 1233 7462 RETURN RECEIPT REQUESTED

RE: Advanced Notification of Construction of a Satellite Facility at Cameco Resource's North Butte Properties Source Material License SUA-1548, Docket 40-8964

Dear Mr. Mandeville:

Power Resources, Inc. d/b/a Cameco Resources (Cameco) has approved construction and operation of a satellite facility at Cameco's North Butte properties for future extraction of uranium through the In-Situ Recovery (ISR) process. Per Source Material License SUA-1548 License Condition (LC) 9.4, a Safety and Environmental Review Panel (SERP) convened on 5/15/2012 to ensure the proposed construction and operation of the facility would not cause additional physical or environmental harm than that previously evaluated by the NRC. The Uranerz U.S.A., Inc. Environmental Assessment (EA), 1990, for North Butte and Ruth properties describes the processing plant which would have included IX, elution, precipitation, thickening and drying capacity. The statement also allows for the transfer of loaded and unloaded resins to another facility, not specific. The EA also states that Uranerz would have to submit detailed plant layout prior to installation and operation. Uranerz did not have a Performance Based License that would allow review and approval of changes in the license if the change had been previously assessed by the NRC through EA and SER process. Since the Uranerz license has rolled into SUA-1548 with the purchase of the North Butte and Ruth properties the Smith Ranch Performance Based license applies to the existing North Butte/Ruth license as well. This allows Cameco Resources to review and approve proposed changes within the license if the SERP license conditions are met through the ORC/SERP process.

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The Smith Ranch-Highland Central Processing Plant (CPP) is divided into five staging areas separated with cement curbing or different rooms. The dryer/packaging, precipitation/thickner, elution, brine water makeup and IX/wastewater/RO areas. All satellites associated with Smith Ranch-Highland are similar to and function the same as the IX/wastewater/RO segment of the approved Smith Ranch CPP. The changes that have evolved over time are mostly related to instrumentation upgrades due to technological advances. The approved plant at North Butte was described and designed to function the same as the approved Smith Ranch CPP. The statement in the North Butte EA that allows for the transfer of load and unloaded resins to another facility indicates that the only functioning portion of the approved plant is the IX, wastewater and RO systems or a Satellite.

License Amendments 11 and 12 to SUA-1548 approved the Reynolds Ranch Satellite and Satellite SR-2, respectively. The planned activities and satellite design approved and assessed for the Satellite SR-2 project included: construction activities; barren lixiviant pumped to the wellfields; be the recipient of pregnant lixiviant from the wellfields; then pumped to a series of IX columns; uranium would be extracted by the resin; loaded resin would be transferred to the smith Ranch CPP for processing; waste water storage; reverse osmosis and restoration effluent waste. The North Butte Satellite plant layout design and function, including tanks, pumps, vessels, control room, restrooms, change rooms and lab would be the same as SR-2 with exception of orientation and placement. Some components may be newer more advanced models, especially electronics. The approved Reynolds Ranch Satellite has not been constructed to date, but will be the same function and basic design SR-2 and North Butte satellites.

Clearly all activities proposed at the North Butte Satellite have been previously assessed by the NRC through an EA process for North Butte, SR-2 and Reynolds Satellite amendments and all found to have no adverse impacts. The construction and operation of the IX/wastewater/RO section of the originally approved North Butte Plant would have less environmental impacts that a full plant as approved. The EAs of both SR-2 and Reynolds Satellite support this conclusion.

Since two satellite facilities (SR-2 and Reynolds Ranch) have been reviewed and approved by the NRC, it is determined that the ORC/SERP process could be employed to review and if appropriate approve the construction and operation of the North Butte Satellite facility. The ORC/SERP determined that the satellite facility lies within the envelope of previously approved NRC Environmental Assessments and Plans of Operation and will not cause any of the conditions outlined in LC 9.4(b). The Safety and Environmental Evaluation completed by the panel is attached with this document for NRC review. The complete documentation including drawings, specifications, risk assessment, and scope of work is located at the Smith-Ranch Highland Site and is available for review during the next routine NRC inspection.

Supporting ORC/SERP reviews will be conducted for the proposed surge ponds and the startup of Wellfield 1 at North Butte.

If you have any questions, please contact Josh Leftwich at 307-316-7600, or email to Josh_Leftwich@cameco.com.

Respectfully,

Josh Leftwich
Director, Safety, Health, Environment and Quality

JL/jmc

cc: Document Control Desk, NRC Certified Mail #7010 1870 0002 1233 7455

ec: Cameco-Cheyenne