



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

June 26, 2006

Orval and Antonia Baird, Property Owners
Site of Former Salmon River
Uranium Development, Inc.
P.O. Box 87
Tendoy, ID 83468

SUBJECT: NRC INSPECTION REPORT 040-03400/06-001

Dear Mr. and Ms. Baird:

This refers to the inspection conducted on June 6-7, 2006, at the former Salmon River Uranium Development, Inc. site located near North Fork, Idaho. This inspection was an examination of activities as they relate to safety and compliance with the Commission's rules and regulations. Within these areas, the inspection consisted of observations of activities and interviews with personnel. The enclosed report presents the results of this inspection. Your support for the NRC staff during this inspection is greatly appreciated.

During the inspection, the NRC became aware that you have been dismantling onsite structures and removing some of the recyclable material from the site. You are conducting such activities, in part, because of your concern for the health and safety of yourself and others. The NRC appreciates your concern for safety; however, as stated in NRC's letter dated April 4, 2002, you are requested to notify either the NRC project manager (Rafael Rodriguez at 301-415-0193) or myself and obtain authorization prior to any future demolition or removal activities. We are making this request to ensure that contaminated material at the site remains undisturbed, that you will not accidentally become contaminated by this material, and that the contamination is not spread to offsite locations.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Should you have any questions concerning this inspection, please contact the undersigned at (817) 860-8191 or Mr. Robert J. Evans, Senior Health Physicist, at (817) 860-8234.

Sincerely,

/RA/

D. Blair Spitzberg, Ph.D., Chief
Fuel Cycle & Decommissioning Branch

Docket No.: 040-03400
License Nos.: R-0230 (expired), P-4001 (expired)

Enclosure:
NRC Inspection Report
040-03400/06-001

cc w/enclosure:
Mr. Ray Henderson
Minerals Program Manager
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Mr. Greg Weigel
On-Scene Coordinator
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U.S. Environmental Protection Agency
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Mr. Rick Poeton
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bcc w/enclosure (via ADAMS e-mail distribution):

- LDWert
- DBSpitzberg
- RSBrowder
- RJEvans
- BASchlapper
- AMTull
- RLRodriguez, NMSS/DWMEP/DD
- DPersinko, NMSS/DWMEP/DD
- KEGardin
- RIV Nuclear Materials File - 5th Floor

SUNSI Review Completed: RJE ADAMS: Yes No Initials: RJE
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<i>/RA/</i>	<i>/RA/ R.J.Evans for</i>	<i>/RA/ J.V.Everett for</i>	
06/15/06	06/15/06	06/26/06	

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No: 040-03400

License No: R-0230 (expired), P-4001 (expired)

Report No: 040-03400/06-001

Licensee: Salmon River Uranium Development, Inc.

Facility: Salmon River Uranium Mill

Location: West of North Fork, Idaho

Dates: June 6-7, 2006

Inspector: Robert J. Evans, P.E., C.H.P., Senior Health Physicist
Fuel Cycle & Decommissioning Branch

Accompanied By: Ashley M. Tull, Health Physicist
Fuel Cycle & Decommissioning Branch

Rafael L. Rodriguez, Project Manager
Office of Nuclear Materials Safety and Safeguards
Division of Waste Management and Environmental Protection
Decommissioning Directorate

Approved By: D. Blair Spitzberg, Ph.D., Chief
Fuel Cycle & Decommissioning Branch

Attachment: Supplemental Inspection Information

EXECUTIVE SUMMARY

Salmon River Uranium Development, Inc.
NRC Inspection Report 040-03400/06-001

The purposes of the site visit were to conduct a biennial review of site activities, to conduct radiological surveys of the former mill site, and to observe a site assessment being conducted by the U.S. Environmental Protection Agency.

Decommissioning Inspection Procedure for Materials Licenses

- Based on site observations and radiological surveys, the inspector concluded that the piles of radioactive material that had been identified during previous NRC inspections were still intact and had not been disturbed (Section 1).
- The property owners had conducted limited demolition and removal work at the site. Based on previous radiological sample results, the buildings demolished and the material removed from the site were not contaminated (Section 1).
- The U.S. Environmental Protection Agency conducted a site assessment during the inspection. Results of this assessment will be presented to the NRC and the property owners at a later date under separate correspondence (Section 1).

Report Details

Summary of Facility Status

The U.S. Atomic Energy Commission (AEC) issued Source Material License P-4001 to Salmon River Uranium Development, Inc. (SRUD) on October 10, 1958. This license allowed the company to transfer and deliver possession of and title to raw source material. The AEC issued a second license, Source Material License R-0230, to SRUD on March 30, 1959. This second license allowed SRUD to process source material.

The second license was valid for only three months to give the licensee time to conduct operations while responding to an AEC request for additional information. The licensee failed to respond to the AEC's request, and License R-0230 expired on June 30, 1959, without being renewed. The first license, License P-4001, subsequently expired on October 31, 1959.

On May 22, 2001, the NRC visited the former SRUD site. Soil samples were collected during this site visit. Based on these sample results and field observations, the NRC concluded that the site contained a mixture of processed source material, tailings material, and natural ore. The results of this site visit were documented in a letter dated July 3, 2001, to the property owners.

During October 2003, the NRC conducted a second site visit. The purpose of the second visit was to conduct additional radiological sampling to further quantify the amount of radioactive material at the site. The results of this second site visit were documented in NRC Inspection Report 040-03400/2003-01 dated January 20, 2004.

During the current inspection, the mill continued to be shut down. Limited site demolition activities had been conducted by the property owners since the October 2003 inspection. During the inspection, the U.S. Environmental Protection Agency (EPA) performed a site assessment to ascertain the radiological and chemical hazards. Results of the EPA assessment will be issued to the NRC and the property owners under separate correspondence at a later date. At some point in the future, the property owners plan to use the property as a homestead.

1 Decommissioning Inspection Procedure for Materials Licensees (87104)

1.1 Inspection Scope

The objective of the inspection was to determine if site activities were being conducted in a manner that was protective of the health and safety of workers and the general public. The inspection included a site tour, interview with the property owners, radiological surveys, and observation of an EPA assessment.

1.2 Observations and Findings

The inspector conducted a tour of the site. Since the previous inspection, the property owners had completed limited demolition activities in three areas, two buildings adjacent to the mill and the western wall of the mill. The owners demolished these structures

because of safety concerns including potential collapse of the two buildings from age and control of rodents. Salvageable components, primarily boards and sheet metal, were relocated from the mill site to the owners' home in Baker, Idaho.

The inspector conducted a records review of the structures that had been demolished to ascertain whether these structures had been previously identified as contaminated. At the request of the NRC, the Oak Ridge Institute for Science and Education (ORISE) conducted an expanded scoping survey of the site during October 2003. The survey quantified the amount of radioactivity present at the site.

The ORISE report identified the buildings as Building 1, the former mill, Building 2, the building located immediately southeast of the mill, and Building 3, the building located immediately northeast of the mill. The wall surfaces were not identified as contaminated by ORISE in either Buildings 2 or 3, but both building floors were contaminated. The property owners demolished these two structures but left the floors intact. The western wall of the mill was also removed. The ORISE report indicated that contamination was not present on the western wall. Accordingly, the inspector concluded that the property owners did not demolish contaminated structures or remove contaminated material from the site.

The inspection included a radiological survey of the site for comparison to previous survey results. The survey was conducted using a Ludlum Model 19 microRoentgen meter, NRC No. 015518 (calibration due date 12/22/06). Background ambient gamma exposure rates ranged from 0.010 to 0.015 millirems per hour (mR/hr). In summary, the ambient exposure rates were comparable to previous survey results:

Location	Exposure Rate (mR/hr) (including background)
bagged thorium behind mill (north side)	0.6 - 1.3
spilled uranium sands - in yard, northeast of mill	0.2 - 0.3
spilled material - in yard, east of mill	0.8
tank berm material - southwest of mill	0.2 - 1.0
ore pile - southwest of mill	0.2 - 2.0
rock pile - southwest of mill	1.0 - 1.5
3 jugs of liquid thorium material - Baker, Idaho	indistinguishable from background

By letter dated April 4, 2002, the property owners were requested not to disturb or dispose of radioactive material without prior written approval by the NRC. The material specifically identified by the NRC in that letter included the liquid thorium, the berm around the storage tanks, the loose material behind the mill, the loose material settled in tanks and drums, the loose material on the floors, and the processing tanks. At the time of this inspection, this material was still present at the site and had not been disturbed.

Located onsite were two chemical storage tanks. One tank supposedly contained sulphuric acid, while the second tank contained caustic soda and some unknown caustic chemical in a different tank bin. These tanks were still present and in the same physical condition as identified during previous NRC site visits. Also located onsite was an underground diesel tank still containing about 4-inches of fluid.

The property owners previously relocated several jugs of processed liquid thorium material from the mill site to their home in Baker, Idaho. This material was being stored in a root cellar for security and safe-keeping. The inspector noted that the property owners continued to possess three jugs containing approximately 16 gallons of liquid material. Since the October 2003 inspection, the State of Idaho removed some of the liquid material for sampling, and the property owners removed some of the liquid material for independent sampling. As a result, the amount of liquid thorium in the owners' possession was less than previously identified in the 2001 and 2003 NRC site visits.

The EPA was conducting a site assessment in accordance with guidance provided in the EPA's Technical Direction Document 06-03-0013, Salmon River Uranium Development Mill Site Specific Sampling Plan. The EPA planned to collect at least 10 soil samples based on x-ray fluorescence and radiological field screening. The soil samples will be analyzed for metals as well as radioactive thorium and uranium. Using preliminary field screening methods, arsenic was identified in measurable quantities, most likely from previous gold milling operations. Formal sample results and EPA recommendations will be presented to the NRC and the property owners at a later date under separate correspondence.

1.3 Conclusions

Based on site observations and radiological surveys, the inspector concluded that the piles of radioactive material that had been identified during previous NRC inspections were still intact and had not been disturbed. The property owners had conducted limited demolition and removal work at the site. Based on previous radiological sample results, the buildings demolished and the material removed from the site were not contaminated. The EPA conducted a site assessment during the inspection. Results of this assessment will be presented to the NRC and the property owners at a later date under separate correspondence.

2 **Exit Meeting Summary**

The inspector presented the inspection results to the property owners at the exit meeting on June 7, 2006. The property owners did not identify as proprietary any information provided to, or reviewed by, the inspector. For the protection of the property owners and to prevent the inadvertent spread of contamination, the inspector and the NRC project manager advised the property owners at the exit meeting to obtain NRC approval prior to commencing with any future demolition project.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Property Owners

A. Baird
O. Baird

U.S. Environmental Protection Agency

E. Amick, Senior Staff Consultant, TechLaw, Inc.
S. Cowan, Project Manager, TechLaw, Inc.
L. Nelson, Environmental Scientist, TechLaw, Inc.
G. Weigel, On-Scene Coordinator, Idaho Operations Office, Region 10, EPA

State of Idaho

K. McKinley, Remediation Scientist, Department of Environmental Quality
K. Moser-McIntire, Senior Health Physicist, Department of Environmental Quality

INSPECTION PROCEDURES USED

87104 Decommissioning Inspection Procedure for Materials Licenses

ITEMS OPENED AND CLOSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

AEC	U.S. Atomic Energy Commission
EPA	U.S. Environmental Protection Agency
mR/hr	millirems per hour
NRC	U.S. Nuclear Regulatory Commission
ORISE	Oak Ridge Institute for Science and Education
SRUD	Salmon River Uranium Development, Inc.