

APPENDIX B
U. S. NUCLEAR REGULATORY COMMISSION
REGION IV
URANIUM RECOVERY FIELD OFFICE

NRC Inspection Report: 40-8698/87-001 License: SUA-1371

Docket: 40-8698

Licensee: Plateau Resources Limited
Shootaring Canyon Uranium Processing Facility
P.O. Box 11
Ticaboo, Utah 84734

Facility: Shootaring Canyon Uranium Processing Facility

Inspection Conducted: February 24-26, 1987

Inspector:

151
R. F. Brich, Project Manager

4/13/87
Date

Approved:

151
Harry J. Pettengill, Chief
Licensing Branch 2
Uranium Recovery Field Office, Region IV

4/13/87
Date

Inspection Summary

Inspection Conducted on February 24-26, 1987 (Report No. 40-8698/87-001)

Areas Inspected Routine unannounced inspection of uranium milling operations and radiation safety program including: Management Organization and Control/Operations Review; Operator Training and Retraining; Maintenance; Radiation Protection; Radioactive Waste

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Management; Transportation of Radioactive Materials; Environmental Protection; and Emergency Preparedness.

The inspection involved a total of 14 inspector hours onsite by one NRC inspector.

Results: Within the eight areas inspected, one violation was identified in one area as follows:

1. Failure to adequately calibrate radiation detection instrumentation.

DETAILS

1. Persons Contacted

- *J. K. Thamm, General Manager
- *M. Pennington, Environmental and Radiological Health Technician
- *W. Collins, Project Maintenance Manager

*Denotes those present at the exit interview.

2. License Action on Previous Inspection Findings

(Closed) Violation (40-8698/86-001): Failure to conduct monthly safety meetings for two months in 1985. The inspector noted that the renewed license does not require monthly safety meetings.

(Closed) Deviation (40-8698/86-001): Failure to conduct annual refresher training in radiation safety for all permanent employees. The inspector noted that annual refresher training had been conducted.

3. Management Organization and Controls/Operations Review

The Plateau Resources Limited (PRL) Shootaring Canyon Uranium Processing Facility has been shut down since August 1982. Currently, 12 workers are employed at the mill and routinely occupy the mill offices or ancillary buildings ten hours a day, four days a week.

A contracted individual, who is not stationed at the facility, fulfills both the Environmental and Radiological Health Supervisor (ERHS) and Quality Assurance Coordinator positions. The individual holding the position of ERHS serves as facility Radiation Safety Officer. The Environmental and Radiological Health Technician (ERHT) is stationed full time at the mill. The ERHS reports to the General Manager who in turn reports to the PRL Vice President, the managing officer of PRL. The General Manager is the highest ranking corporate official onsite.

The inspector examined the licensee's written operating procedures for the radiation safety and environmental monitoring programs and determined that they had been reviewed by the ERHS during 1986, and were available to all facility personnel in accordance with License Condition No. 11. The inspector noted that the licensee did not issue any RWPs during 1986.

The inspector also reviewed the annual ALARA audit report conducted and filed by the ERHS. Problem areas identified in the audit had been appropriately corrected by licensee personnel. The inspector found that the reports, audits, and procedures described above were acceptable and in accordance with License Condition Nos. 11 and 18.

No violations or deviations were identified by the NRC inspector.

4. Operator Training and Retraining

The required annual radiation safety refresher training was conducted during 1986 and all mill and mine employees attended in accordance with License Condition No. 11. The inspector notes that Source Material License SUA-1371, which was renewed and issued shortly after the last inspection on January 22-23, 1986, does not require monthly safety meetings.

Additional information provided by the ERHS by letter dated March 2, 1987, documented that he has received refresher training in accordance with license requirements. The ERHT is scheduled to receive refresher training in 1987.

No violations or deviations were identified by the NRC inspector.

5. Facility Adequacy

A chain link fence topped with barbed wire comprises the security barrier and delineates the restricted area boundary around the mill buildings and tailings structure. The inspector noted that the fence and entrance gates were appropriately posted in accordance with License Condition No. 13.

Only minimal maintenance activities are necessary since operation is not authorized under License Condition 12. All access points to the yellowcake drying and packaging enclosure are welded shut to assure that no unauthorized entry into this area occurs during the current shutdown period.

No violations or deviations were identified by the NRC inspector.

6. Radiation Protection

a. In Plant Air Sampling

In accordance with License Condition No. 30, no routine inplant radiation air monitoring is required.

b. Exposure Determination

The inspector noted that no internal exposure determinations were necessary in accordance with License Condition No. 30. In addition, external exposure determinations are not required as specified in License Condition No. 30.

c. Respiratory Protection

The licensee maintains an approved respiratory protection program; however, due to the shutdown status of the mill, it was necessary for only two employees to be fit-tested, trained, and medically evaluated for wearing respiratory protection. The inspector reviewed and found that the documentation of these activities was in

accordance with License Condition No. 21. However, respiratory protection was not utilized during the period covered by the inspection.

d. Bioassay Program

No routine urinalysis had been conducted during the past year, nor was any required in accordance with License Condition No. 30. Routine in vivo measurements were suspended for nonoperational periods when the renewed license was issued by the NRC. The inspector determined that the licensee conducted the bioassay program in accordance with License Condition No. 30.

e. Contamination Control

No beta-gamma surveys were performed in the calcining and yellowcake storage areas during 1986. This is in accordance with License Condition No. 30 which does not require these types of surveys.

The licensee documented the results of surveys for fixed and removable alpha contamination. These included surveys of lunchrooms, change rooms and offices. Results were all below the limits specified in Table 1 of Regulatory Guide 8.30. However, the surveys were conducted on January 13 and December 11, 1986. The inspector determined that these surveys were not conducted in accordance with License Condition No. 30, which references Table 5.5-3 of the renewal application, since a period greater than six months occurred between the surveys. The ERHS noted this in the ALARA audit report dated December 11, 1986, and appropriate corrective action had been taken prior to this inspection. The inspector determined that the licensee's identification and correction of the problem met the criteria specified in 10 CFR Part 2, Appendix C, Section V. A. The inspector therefore concluded that the issuance of a notice of violation regarding this item was not recommended.

Individuals who accessed mill areas where product existed in the circuit self-monitored in the change room prior to leaving the mill site. Records of these surveys were appropriately maintained. No incidents requiring personnel decontamination occurred during 1986; nevertheless, protective clothing is provided for the employees. These self-monitoring surveys were conducted in accordance with License Condition No. 30.

Contrary to License Condition No. 30 requirements, the in-house calibration of two Eberline SAC 4 and two PRS-2 radiation detectors which were performed semiannually were not in accordance with the procedures contained in Appendix F of the renewal application referenced in License Condition No. 11. Specifically, voltage plateaus had not been determined for the instruments. The inspector determined that radiation monitoring equipment had not been calibrated in accordance with License Condition Nos. 30 and 11. Functional instrument checks using a radioactive source were performed prior to use of each survey instrument.

One apparent violation and no deviations of NRC requirements were identified by the NRC inspector.

7. Radioactive Waste Management

The inspector toured the mill and tailings area as part of the inspection. The ore stockpile had been regraded and covered with a minimum of six inches of overburden. Beach areas of tailings cells 2 and 3 were covered with a minimum of 18 inches of overburden as required by License Condition No. 42. Cell 1 contained tailings solution covering approximately 1500 square feet. Enhanced evaporation was in use during the inspection. Since no mill discharges are occurring only natural precipitation can increase the volume of solution in cell 1.

The licensee had conducted and documented monthly inspections of the tailings system and daily inspections of the tailings sump pump located downstream of the cross valley berm in accordance with License Condition Nos. 35 and 37. Movement monitor data indicated little or no change over the past two years. The dam is considered to be stable although no tailings are behind it.

Piezometers in place beneath the tailings cells had their pressure readings recorded monthly. Seasonal variations were apparent but were consistent from season to season. The cross valley berm contains neither movement monitors nor piezometers. It was originally constructed as a temporary berm in order to utilize small portions of the main impoundment which could be readily filled, dried, and covered.

The inspector reviewed records of monthly inspections of the ore pile and the tailings system for evidence of blowing material. Inspections had been performed and documented in accordance with License Condition No. 42 requirements. Continued inspections will assure that the interim covers described above are appropriately maintained. The inspector determined that the tailings system and ore piles had been inspected and maintained in accordance with License Condition No. 42 and Criterion 8 of Appendix A to 10 CFR 40.

No violations or deviations were identified by the NRC inspector.

8. Transportation of Radioactive Materials

No radioactive material had been shipped during the inspection period.

No violations or deviations were identified by the NRC inspector.

9. Environmental Protection

The inspector reviewed the results of the environmental monitoring program in effect at the mill. Environmental air samplers were calibrated quarterly in-house and the calibrator was checked by the EPA on an annual basis. All results have consistently been below the applicable MPCs for unrestricted areas. Area TLDs were located at both monitoring stations. The environmental monitoring program was found to be conducted in accordance with License Condition No. 30.

No violations or deviations were identified by the NRC inspector.

10. Emergency Preparedness

The inspector conducted a review of the mill's emergency procedures. Testing and inspection of fire detection and suppression equipment was performed in accordance with license requirements. A drill was conducted in which the fire truck from Ticaboo was operated by the volunteer fire department (consisting of mill employees) during a response exercise. The diesel generators providing backup power to the water pumps on the mill site were tested each month in 1986. Semiannual tests of the sprinkler heads were also conducted and documented. Although the kerosene had been drained from the solvent extraction circuit, a foam suppression system was still maintained.

In the event of a fire at the mill, employees would attempt to fight the fire by using fire hoses connected to the 150,000 gallon water supply, or by using fire extinguishers. A visit by an invited representative of PRL's insurance company did not result in a report; therefore, none could be reviewed. The inspectors determined that emergency preparedness activities had been conducted in accordance with License Condition No. 11.

No violations or deviations were identified by the NRC inspector.

11. Exit Interview

The NRC inspector met with the licensee on February 26, 1987. The inspector reviewed the purpose, scope, and findings of the inspection. The one apparent violation was described and discussed. The licensee personnel provided a verbal commitment that corrective actions would be implemented as soon as possible.

NRC FORM 780 111-871 4E NRC 05/25	U.S. NUCLEAR REGULATORY COMMISSION INSPECTOR'S REPORT Office of Inspection and Enforcement	PRINCIPAL INSPECTOR (Name, last, first and middle initial): Brich, Randall F. REVIEWER:
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INSPECTORS	
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LICENSEE/VENDOR	TRANSACTION TYPE	DOCKET NO. (8 digit) OR LICENSE NO. (BY PRODUCT) (113 digit)	REPORT NO.	SEQ	NEXT INSP. DATE
Plateau Resources Ltd.	<input checked="" type="checkbox"/> I - INSERT	04008698	87-001	4	0288
	<input type="checkbox"/> M - MODIFY				
	<input type="checkbox"/> D - DELETE				
	<input type="checkbox"/> R - REPLACE				

PERIOD OF INVESTIGATION/INSPECTION	INSPECTION PERFORMED BY	ORGANIZATION CODE OF REGION/HQ CONDUCTING ACTIVITY (See 4EAC 85.30 "Manpower Reporting—Weekly Manpower Reporting" for code)
FROM: MO. DAY YR. TO: MO. DAY YR. 022487 022687	<input checked="" type="checkbox"/> 1 - REGIONAL OFFICE STAFF <input type="checkbox"/> 2 - RESIDENT INSPECTOR <input type="checkbox"/> 3 - PERFORMANCE APPRAISAL TEAM OTHER:	REGION DIVISION BRANCH 4 4 2

REGIONAL ACTION (Check one box only)	TYPE OF ACTIVITY CONDUCTED (Check one box only)			
<input checked="" type="checkbox"/> 1 - NRC FORM 881 <input type="checkbox"/> 2 - REGIONAL OFFICE LETTER	<input checked="" type="checkbox"/> 02 - SAFETY <input type="checkbox"/> 03 - INCIDENT <input type="checkbox"/> 04 - ENFORCEMENT <input type="checkbox"/> 05 - MGMT. AUDIT	<input type="checkbox"/> 06 - MGMT. VISIT <input type="checkbox"/> 07 - SPECIAL <input type="checkbox"/> 08 - VENDOR <input type="checkbox"/> 09 - MAT. ACCT.	<input type="checkbox"/> 10 - PLANT SEC. <input type="checkbox"/> 11 - INVENT. VER. <input type="checkbox"/> 12 - SHIPMENT/EXPORT <input type="checkbox"/> 13 - IMPORT	<input type="checkbox"/> 14 - INQUIRY <input type="checkbox"/> 15 - INVESTIGATION

INSPECTION/INVESTIGATION FINDINGS (Check one box only)	TOTAL NUMBER OF VIOLATIONS AND DEVIATIONS	ENFORCEMENT CONFERENCE HELD	REPORT CONTAINS THIS INFORMATION	LETTER OR REPORT TRANSMITTAL DATE
<input checked="" type="checkbox"/> 1 - CLEAR <input type="checkbox"/> 2 - VIOLATION <input type="checkbox"/> 3 - DEVIATION <input type="checkbox"/> 4 - VIOLATION & DEVIATION	A B C D 1 1 1 1	A B C D 1 - YES	A B C D 1 - YES	NRC FORM 881 OR REG. LETTER ISSUED: MO. DAY YR. REPORT SENT TO HQ FOR ACTION: MO. DAY YR.

MODULE INFORMATION												MODULE INFORMATION																				
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TYPE	NUMBER	PHASE	MANUAL	CHAPTER	PROCEDURE	NUMBER	LEVEL	STATUS	PRIORITY	DIRECT INSPECTION EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION	PERCENTAGE COMPLETED TO DATE	STATUS	PHASE	MANUAL	CHAPTER	PROCEDURE	NUMBER	LEVEL	STATUS	PRIORITY	DIRECT INSPECTION EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION	PERCENTAGE COMPLETED TO DATE	STATUS	PHASE	MANUAL	CHAPTER	PROCEDURE	NUMBER	LEVEL			
	5	3	0	7	0	3			A	0.0	1											5	8	8	0	2	5					
Management Entrance/Exit Interviews														Maintenance/Surveillance Testing																		
	5	8	8	0	0	5			A	0.0	2	1.0	0	C								5	8	3	8	2	2					
Management Organization and Controls														Radiation Protection																		
	5	8	8	0	1	0			A	0.0	1	1.0	0	C								5	8	8	0	3	5					
Operator Training/Retraining														Radioactive Waste Management																		
	5	8	8	0	2	0			A	0.0	1	1.0	0	C								5	8	6	7	4	0					
Operations Review														Transportation of Radioactive Materials																		

NRC Form 700 111.011 12 MAR 85/86		U.S. NUCLEAR REGULATORY COMMISSION		PRINCIPAL INSPECTOR (Name, Title, Dept. and Mobile Phone) REVIEWER							
INSPECTOR'S REPORT Office of Inspection and Enforcement											
INSPECTORS											
LICENSEE/VENDOR		TRANSACTION TYPE	DOCKET NO. (8 digit) OR LICENSE NO. (6 Y PRODUCT) (113 digit)	REPORT NO.	NEXT INSP. DATE						
		I - INSERT M - MODIFY D - DELETE R - REPLACE	0 4 0 0 8 6 9 8	8 7 0 0 1	MO YR 0 2 8 8						
PERIOD OF INVESTIGATION/INSPECTION		INSPECTION PERFORMED BY		ORGANIZATION CODE OF REGION/HQ CONDUCTING ACTIVITY (See 10 CFR 65.33 "Management Reporting - Monthly Management Reporting" for code)							
FROM TO MO DAY YR MO DAY YR		1 - REGIONAL OFFICE STAFF 2 - RESIDENT INSPECTOR 3 - PERFORMANCE APPRAISAL TEAM OTHER		REGION DIVISION BRANCH 4 4 2							
REGIONAL ACTION (Check one box only)		TYPE OF ACTIVITY CONDUCTED (Check one box only)									
1 - NRC FORM 801 2 - REGIONAL OFFICE LETTER		80 - SAFETY 81 - INCIDENT 84 - ENFORCEMENT 85 - MGMT. AUDIT 86 - MGMT. VISIT 87 - SPECIAL 88 - VENDOR 89 - MAT. ACCT. 90 - PLANT SEC. 91 - INVENT. VER. 92 - SHIPMENT/EXPORT 93 - IMPORT 94 - INQUIRY 95 - INVESTIGATION									
INSPECTION/INVESTIGATION FINDINGS (Check one box only)		TOTAL NUMBER OF VIOLATIONS AND DEVIATIONS	ENFORCEMENT CONFERENCE HELD	REPORT CONTAINS 2 PAGES INFORMATION	LETTER OR REPORT TRANSMITTAL DATE						
A B C D 1 - CLEAR 2 - VIOLATION 3 - DEVIATION 4 - VIOLATION & DEVIATION		A B C D	A B C D	A B C D	NRC FORM 801 OR REG LETTER ISSUED MO DAY YR REPORT SENT TO HQ FOR ACTION MO DAY YR						
MODULE INFORMATION											
REC. ORD.	MODULE NUMBER INSP.				REC. ORD.	MODULE NUMBER INSP.					
TYPE	NUMBER	PHASE	MANUAL CHAPTER	PROCEDURE NUMBER	LEVEL	TYPE	NUMBER	PHASE	MANUAL CHAPTER	PROCEDURE NUMBER	LEVEL
1	5	8	8	0	4	5	9	2	7	0	6
Environmental Protection						Independent Inspection					
1	5	8	8	0	5						
Emergency Preparedness											
1	5	9	2	7	0						
Follow up on Inspector Identified Problems											
1	5	9	2	7	0						
Follow up on Noncompliance											
1	5	9	2	7	0						

<small>NRC FORM 788 A (11-81) RE NRC 0836</small> INSPECTOR'S REPORT (Continuation) Office of Inspection and Enforcement		DOCKET NO. (8 digits) OR LICENSE NO. (BY PRODUCT) (13 digits)										REPORT		MODULE NUMBER						SITE RELATED <input type="checkbox"/> A C <input type="checkbox"/> B D			
		0 4 0 8 6 9 8										87-001		5 8 3 8 2 2									
												A		VIOLATION SEVERITY OR DEVIATION									
												B		1 2 3 4 5 6									
										C								<input checked="" type="checkbox"/>					
										D													

VIOLATION OR DEVIATION (Enter up to 2400 characters for each item. If the text exceeds this number, it will be necessary to paraphrase. Limit lines to 80 characters each.)

1.	
2.	License Condition No. 11 requires, in part, by reference to Appendix F of the
3.	renewal application that specific calibration procedures would be followed during
4.	routine in-house calibration of radiation detection instrumentation.
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6.	Contrary to this requirement, 2 SAC 4s and 2 PRS-2s were not calibrated in
7.	accordance with the procedures specified in Appendix F.
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9.	This is a Severity Level IV Violation (Supplement VI)
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