

Environmental Assessment
for Renewal of
Source Material License No. SUA-1371

Plateau Resources Limited
Shootaring Canyon Uranium Mill
Garfield County, Utah

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**ENVIRONMENTAL ASSESSMENT
FOR RENEWAL OF
SOURCE MATERIAL LICENSE SUA-1371**

**PLATEAU RESOURCES, LTD.
SHOOTARING CANYON URANIUM MILL
GARFIELD COUNTY, UTAH**

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DOCKET NO. 40-8698

**U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety
and Safeguards
Division of Waste Management**

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1.0 INTRODUCTION

By application dated March 1, 1996, and supplements and revisions transmitted by letters dated September 16 and November 15, 1996, Plateau Resources Limited (PRL) requested renewal of U.S. Nuclear Regulatory Commission Source Material License SUA-1371, for the resumption of milling activities at the Shootaring Canyon Uranium Project, which is located in Garfield County, Utah.

With this license renewal, NRC will be authorizing a resumption of mill operations under the Performance-Based License Condition (PBLC) format. Under Performance-Based Licensing, the licensee has the burden of ensuring the proper implementation of the PBLC. The licensee may:

- Make changes in the facility or process, as presented in the application,
- Make changes in the procedures presented in the application, or
- Conduct tests or experiments not presented in the application, without prior NRC approval, if the licensee ensures that the following conditions are met:
 - (1) The change, test, or experiment does not conflict with any requirement specifically stated in this license (excluding material referenced in the PBLC), or impair the licensee's ability to meet all applicable NRC regulations;
 - (2) There is no degradation in the essential safety or environmental commitments in the license application, or provided by the approved reclamation plan; and
 - (3) The change, test, or experiment is consistent with the NRC's conclusions regarding actions analyzed and selected in the Environmental Assessment (EA).

Otherwise, the licensee is required to submit an application for a license amendment from the NRC. The licensee's determinations regarding whether the above conditions are satisfied will be made by a Safety and Environmental Review Panel (SERP).

The SERP shall consist of a minimum of three individuals. One member of the SERP shall have expertise in management and shall be responsible for managerial and financial approval changes; one member shall have expertise in operations and/or construction and shall have expertise in implementation of any changes; and, one member shall be the corporate radiation safety officer (CRSO) or equivalent. Additional members may be included in the SERP as appropriate, to address technical aspects in several areas, such as health physics, groundwater hydrology, surface water hydrology, specific earth sciences, and others. Temporary members, or permanent members other than the three identified above, may be consultants.

The licensee shall maintain records until license termination of any changes made pursuant to the PBLC. These records shall include written safety and environmental evaluations, made by the SERP that provide the basis for determining that the change complies with the requirements referred to in the above conditions. The licensee shall furnish an annual report to the NRC that describes such changes, tests, or experiments, including a summary of the safety and environmental evaluation of each. In addition, the licensee shall annually submit any pages of its license application that have been revised to reflect changes made under this condition.

PRL has not yet submitted its standard operating procedures (SOPs) for operation of the SERP. Therefore, NRC will require, by license condition, that PRL submit the SOPs for NRC review within 60 days of the date the renewal license is issued, and until such time as NRC approves the SOPs, PRL will not be authorized to implement the PBLC. PRL agreed to this license condition by telephone on March 31, 1997.

NRC's inspection function remains unchanged with the administration of Performance-Based Licensing. Operational changes, regulatory commitments, and recordkeeping requirements implemented by PRL through the PBLC are subject to NRC inspection and possible enforcement actions.

1.1 Background Information

By letter dated May 5, 1978, PRL applied to NRC for a source and byproduct material license to construct and operate a uranium milling facility in Garfield County, Utah, approximately 22 kilometers (km) (14 miles) by road north of Bullfrog Basin Marina and about 80 km (48 miles) south of Hanksville, Utah (Figure 1.1). As a result of studies conducted for a Final Environmental Statement (FES) (NUREG-0583; NRC, 1979a), NRC concluded that the adverse environmental impacts associated with PRL's Shooting Canyon uranium project were such that the use of the mitigative measures proposed and implemented by the applicant would reduce any adverse impacts to acceptable levels. Following issuance of the FES in July 1979 and the staff's Safety Evaluation Report (SER) in September 1979, NRC Source Material License SUA-1371 was issued on September 21, 1979.

Following start-up testing, PRL operated the Shooting Canyon mill for approximately three months in 1982, before suspending operations in August 1982 due to the continued decline in the market price for yellowcake. By application dated November 26, 1984, and subsequently amended by submittal dated August 13, 1985, PRL applied for renewal of SUA-1371 authorizing an indefinite shutdown of the mill. SUA-1371 was renewed on February 3, 1986, for "possession only" status. The NRC staff prepared a supplemental EA and SER at that time to document its review.

SUA-1371 was due to expire on December 31, 1993. By letter and attachments dated November 29, 1993, PRL applied for renewal of SUA-1371 for continuation of a "possession only" status, and was notified in return by the NRC staff that the license was in timely renewal by letter dated January 11, 1994.

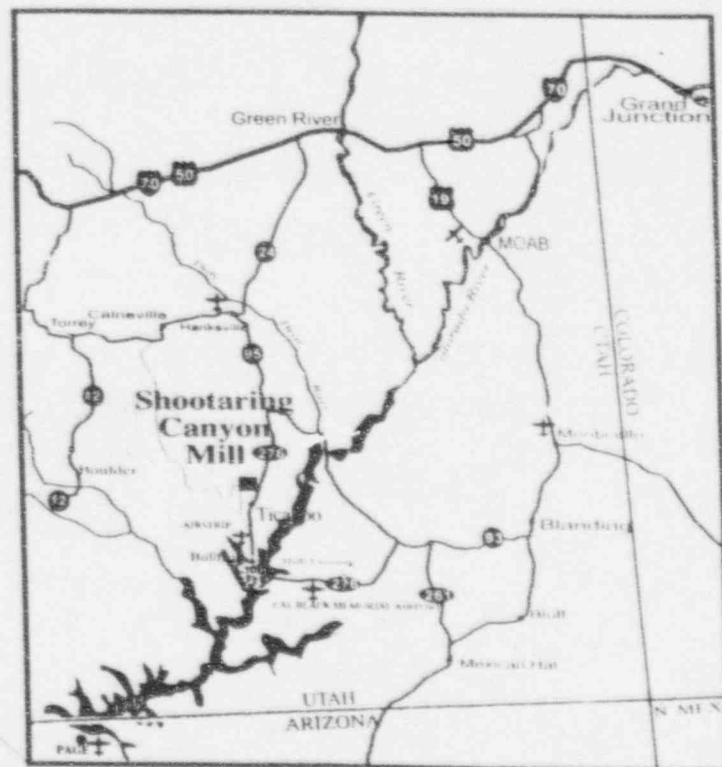


Figure 1.1 Location of the Shootingstar Canyon Uranium Project (PRL, 1997)

By submittal dated March 1, 1996, PRL amended its November 1993 renewal application to request a resumption of milling operations at the Shootaring Canyon site (PRL, 1996).

1.2 Proposed Action

The proposed action is to issue a renewal of the subject license for operation of the Shootaring Canyon facility at a maximum production rate of 1,004,000 pounds of yellowcake per calendar year. Additionally, PRL will be authorized, by license condition, to possess byproduct material in the form of uranium waste tailings and other uranium byproduct waste generated by its milling operations authorized by the renewal license.

1.3 Review Scope

1.3.1 **Federal and State Authorities**

NRC source material licenses are issued under Title 10, Code of Federal Regulations, Part 40 (10 CFR Part 40). As stated in 10 CFR 40.3, "A person subject to the regulations in this part may not receive title to, own, receive, possess, use, transfer, provide for long-term care, deliver or dispose of byproduct material or residual radioactive material as defined in this part or any source material after removal from its place of deposit in nature, unless authorized in a specific or general license issued by the Commission ..." Source material is defined under 10 CFR 40.4 as (1) uranium or thorium, or any combination thereof, in any physical or chemical form, or (2) ores which contain by weight 0.05 percent or more of uranium, thorium, or any combination thereof.

In addition, the Uranium Mill Tailings Radiation Control Act of 1978, as amended (UMTRCA), requires persons who conduct uranium source material operations to obtain a byproduct material license to own, use, or possess tailings and wastes generated by the operations (including above-ground wastes from in situ operations). This EA has been prepared under 10 CFR Part 51, "Licensing and Regulatory Policy and Procedures for Environmental Protection," which implements NRC's environmental protection program under the National Environmental Policy Act of 1969 (NEPA). In accordance with 10 CFR Part 51, an EA serves to (a) briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI), (b) facilitate preparation of an EIS when one is necessary, and (c) aid the NRC's compliance with NEPA when an EIS is not necessary.

Impacts from the commercial scale operation of the site were previously evaluated in the FES (NRC, 1979a). The EA and SER for the previous renewal of SUA-1371 for "possession only" status were issued by the NRC staff on February 3, 1986.

A new SER will accompany this EA. In preparing these two documents, the staff will re-evaluate the potential impacts associated with the commercial operation of the Shootaring Canyon mill. Should the NRC issue a FONSI, based on the licensee's application materials, previous operational data, and information in the FES and previous EA, a renewed commercial source material license would be issued to PRL.

The State of Utah Department of Environmental Quality (DEQ) administers and implements the State's rules and regulations.

1.3.2 Basis of NRC Review

The NRC, Division of Waste Management, staff has assessed the environmental and safety impacts associated with the renewal of PRL's commercial license for the Shootaring Canyon mill, and documented the results of the assessment in this report. The staff performed this appraisal in accordance with the requirements of 10 CFR Part 51.

In conducting its assessment, the staff considered the following:

- Information contained in the previous environmental evaluations of the Shootaring Canyon project (i.e., the 1979 FES and the 1986 EA);
- Information contained in PRL's March 1, 1996, amended renewal application and supplementary information submitted by letters dated September 16 and November 15, 1996;
- Information contained in PRL amendment requests, NRC approvals of such requests, and land use and environmental monitoring reports;
- Personal communications with PRL, State of Utah DEQ staff, and the U.S. National Park Service; and
- Information derived from NRC staff site visits and inspections of the Shootaring Canyon mill site.

2.0 SITE DESCRIPTION

2.1 Location

The project site is located in southeastern Utah, in Garfield County, approximately 22 km (14 miles) by road north of Bullfrog Basin Marina, which itself is located on the shores of Lake Powell in the Glen Canyon National Recreation Area. The mill can be reached by taking a private road for approximately 3.2 km (2 miles) west of Utah State Highway 276.

All operations to be authorized by the renewal license will be conducted within the confines of the existing site boundary. The project site occupies approximately 40 hectares (100 acres) within Townships 35 and 36 South, Range 11 East.

2.2 Climate and Weather

The regional climate is semi-arid, although there are the expected variations in precipitation and temperature with changes in elevation and terrain. Days are usually sunny, with low humidity, and high potential evaporation. Daily temperature ranges can be relatively large, and winds, predominantly from the south, are light to moderate, with an average annual wind speed of 6.0 knots (7 miles per hour). Precipitation at the site averages

approximately 17.8 cm (7 inches) per year, with the majority of it falling during late summer/early fall or as winter showers and thunderstorms.

A more detailed discussion of the local and regional climate and weather is contained in the FES (NRC, 1979a).

2.3 Geology

2.3.1 Regional Geology

The project site is located in southeastern Utah in the Henry Mountains Basin of the Colorado Plateau. The basin is one of seven major basins that compose approximately one-third of the Colorado Plateau. It is bounded on the east by the Monument Uplift, and on the west by the north/south-trending Waterpocket Fold. Elevations within the Henry Mountains Basin range from 1200 to 2100 meters (approximately 4000 to 7000 feet). Peaks within the Henry Mountains were formed as the result of igneous intrusions of diorite porphyry, and are between 2500 and 3500 m (8200 and 11,500 ft) high.

The only faults in the basin are located near Mount Holmes, Mount Ellsworth, and the San Rafael Swell. These faults trend west-northwest to east-southeast, and displacements along them range from several meters to several hundred meters.

2.3.2 Local Geology

At the site, the geologic structure is generally simple, with sediments dipping gently westward at about two degrees. Sedimentary rocks exposed at the site are predominantly sandstones of Upper Jurassic age. The high buttes and mesas west and north of the site are capped by the Salt Wash Member of the Morrison Formation, which hosts the uranium deposits mined in the area. Exposed cliffs surrounding the buttes and mesas are generally comprised of the Summerville and Entrada formations.

The Entrada Formation, a generally massive, fine-grained, calcite-cemented sandstone, underlies the site. In the vicinity of the site, the Entrada is approximately 140 m (450 ft) thick. Located stratigraphically beneath the Entrada, the Carmel Formation is a heterogeneous unit approximately 66 m (215 ft) thick, composed of sandstone, siltstone, mudstone, limestone, and gypsum. The Carmel is itself underlain by approximately 240 m (800 ft) of a massive sandstone, the Navajo Formation. The base of the Navajo lies approximately 450 m (1400 ft) beneath the site.

2.3.3 Seismicity

Since 1853, approximately 150 earthquakes of magnitude 3.5 or greater have been recorded within 322 km (200 miles) of the site. The largest of these events occurred approximately 177 km (110 miles) northwest of the site, with a maximum intensity of VIII to IX (Modified Mercalli) and an estimated magnitude of 6.7 on the Richter scale. The event nearest the site was a magnitude 4.0 earthquake, which occurred on August 22, 1986, and was centered approximately 32 km (20 miles) southeast of the site.

2.4 Hydrology

2.4.1 Surface Water

The facility is located within the Hansen Creek drainage basin. Streams in this 342 square-kilometer (132 square-mile) basin are ephemeral, and the shoreline of the nearest large permanent body of water, Lake Powell, is found approximately 12 km (7 miles) to the south. Substantial surface flows can occur in the stream beds in response to short, intense thunderstorms, but these flows are quickly dissipated chiefly through percolation into the underlying stream channel.

2.4.2 Groundwater

The primary aquifers in the area are the Entrada and Navajo sandstones. Depths to water in the Entrada range between approximately 43 m (140 ft) below the surface of the tailings impoundment to approximately 64 m (210 ft) below the surface of the low mesa beneath the mill buildings. The hydraulic gradient in the Entrada beneath the impoundment is to the south at approximately 11.4 m/km (60 ft/mile). Measured values of permeability and transmissivity in the formation indicate that the Entrada would be expected to be a low-yielding aquifer in the area.

Permeability and transmissivity values derived from pump tests indicate that the Navajo is a much higher yielding aquifer than the Entrada. Depth to water in the Navajo averages approximately 140 m (450 ft), and the water is confined under artesian conditions. A more detailed discussion of the characteristics of the Entrada and Navajo aquifers is provided in the FES (NRC, 1979a).

Wells G-2 and G-3, located near the Tony M Mine (about 5.6 km (3.5 miles) north of the mill), are completed in the Entrada and Navajo Formations, respectively. Levels of total dissolved solids, iron, and sulfate in G-2 water exceed drinking water standards, while G-3 water meets both drinking water and livestock standards.

Wells drilled in 1992 as part of a PRL-contracted study to evaluate potential site environmental liabilities revealed the presence of a perched water zone localized approximately 18 m (60 ft) beneath the tailings impoundment (ICF Kaiser, 1992). The presence of this zone was determined from three wells (RM-7, -8, and -9) drilled by the contractor in the central area of the impoundment; wells located approximately 122 m (400 ft) downgradient from these three wells did not encounter this perched zone. This zone does not appear to have been impacted by the impoundment of generator cooling water behind the main dam during 1981-82, or the 1982 loss of tailings liquid from above the cross-valley berm due to the failure of a circuit pump. Samples collected from RM-7, -8, and -9 show background levels of radioactive and non-radioactive constituents (ICF Kaiser, 1992).

2.5 Topography

The mill site is located in rugged terrain about 8 km (5 miles) southwest of Mount Ellsworth (2510 m/8,235 ft high), among bluffs and mesas characteristic of much of

southeastern Utah. The mill buildings are located on a low mesa, 50 m (165 ft) high, that forms the east side of the tailings impoundment. The tailings impoundment is constructed in a small, isolated catchment, and is bordered on the west by a butte that rises approximately 135 m (440 ft) above the valley floor. Shooting Creek lies just to the west of this butte.

2.6 Demography

The mill is located in Garfield County, Utah, which, with a 1995 population of 4,002 spread across 13,512 km² (5,217 mi²), has population density of 0.3 persons per square kilometer (0.8 persons per square mile). By comparison, the statewide density is 8.9 persons per square kilometer (23.2 persons per square mile). Garfield County's population density is essentially unchanged since 1977.

Approximately 1250 people live within 80 km (50 miles) of the Shooting Canyon site. Table 2.1 provides the population centers within 80 km (50 miles) of the mill site.

| <p>Table 2.1 Major Population Centers within 80 Kilometers of the Shooting Canyon Mill Site</p> | | | |
|---|-----------------|-----------------------------|--------------------------------|
| Town | 1990 Population | Distance from Site (km)* | Distance from Site (miles)* |
| Ticaboo, UT | 16 | 2.5 | 4 |
| Bullfrog Marina/ Halls Crossing, UT | 274 | 23 | 15 |
| Boulder, UT | 126 | 71 | 44 |
| Hanksville, UT | 209 | 80 | 48 |
| Navajo Indian Reservation | 360† | 51-80 | 32-50 |
| <p>* Approximate distance from mill site by air † Approximate population with survey area</p> | | | |

The majority of the mine and mill workers are expected to make their homes in the planned community of Ticaboo. At the height of mine and mill operations, the population of Ticaboo may approach 900 (NRC, 1979a). Since 1979, infrastructure (water and sewer, electrical service, telephones, etc.) has been installed at the townsite, and single family and mobile home lots have been laid out. The socioeconomic impacts associated with the development of the Ticaboo townsite were assessed in detail in the FES (NRC, 1979a). The NRC staff has reviewed its earlier assessment and finds it still to be valid.

For the purposes of radiological dose calculations to members of the public (see Section 4.6.3), the nearest resident to the mill will be located in Ticaboo.

2.7 Land Use

Greater than 90 percent of Grand County is either Federally- or State-owned land, and approximately 60 percent of Grand County is administered by the U.S. Bureau of Land Management (BLM). Uses of this land may include recreation, mineral development, and livestock grazing, among others.

The Glen Canyon National Recreation Area (GCNRA) extends to within approximately 10 km (6 miles) of the site, while the boundaries of Capitol Reef National Park (CRNP) come as close as 20 km (12 miles) to the west of the site. Approximately 2.5 million people visited the GCNRA during 1996 (NPS, 1997a), greater than 70 percent of whom entered the recreation area at Wahweap, at the southwestern edge of the area. The 2.5 million visitors in 1996 represents an increase of approximately 800 percent in the park visitation rate since 1977. On September 18, 1996, President Clinton created the Grand Staircase-Escalante National Monument, which encompasses approximately 728,450 hectares (1.8 million acres) in Garfield and Kane counties. The eastern boundaries of the newly-created monument abut the western boundaries of the CRNP and the GCNRA. GCNRA park officials do not believe that the creation of this new national monument will significantly impact visitation rates to the GCNRA based on the profiles developed for the typical GCNRA visitor (NPS, 1997b).

Access to Lake Powell via State Highway 276 and Bullfrog Basin Marina is popular, especially during the summer months, when peak use may approach 43,000 persons per month (PRL, 1996). Visitation to the marina during all of 1996 numbered 239,275 (NPS, 1997a), which represents a 53 percent increase since 1977.

A more detailed discussion of land use at and in the vicinity of the Shootaring Canyon site is presented in the FES (NRC, 1979a). Archaeological studies conducted at the site and vicinity as part of the original environmental report found only a single lithic scatter of about 400 m by 100 m (1300 ft by 330 ft). The site access road was routed to avoid most of the scatter area, and the State salvaged the artifacts in the area prior to its being disturbed.

PRL is currently required by license condition to conduct an annual land use survey of the area within 8 kilometers (5 miles) of the site and to submit a report of the survey to NRC. However, this survey is not required by the regulations, and therefore, with this renewal, NRC will drop this condition from the license. PRL is already required to comply with annual dose limits to individual members of the public (10 CFR 20.1301), and its demonstrations of compliance address observed changes in land use.

3.0 PROCESS DESCRIPTION

The mill facility is designed to process approximately 1000 tons of uranium ore per day. An average ore grade is expected to be 0.15 weight percent uranium, and the plant is expected to have an overall recovery rate of 90 percent. Based on these values, the mill is capable of producing approximately 1,004,000 pounds of U_3O_8 per year.

A simplified flow diagram of the Shootaring Canyon mill circuit is provided as Figure 3.1.

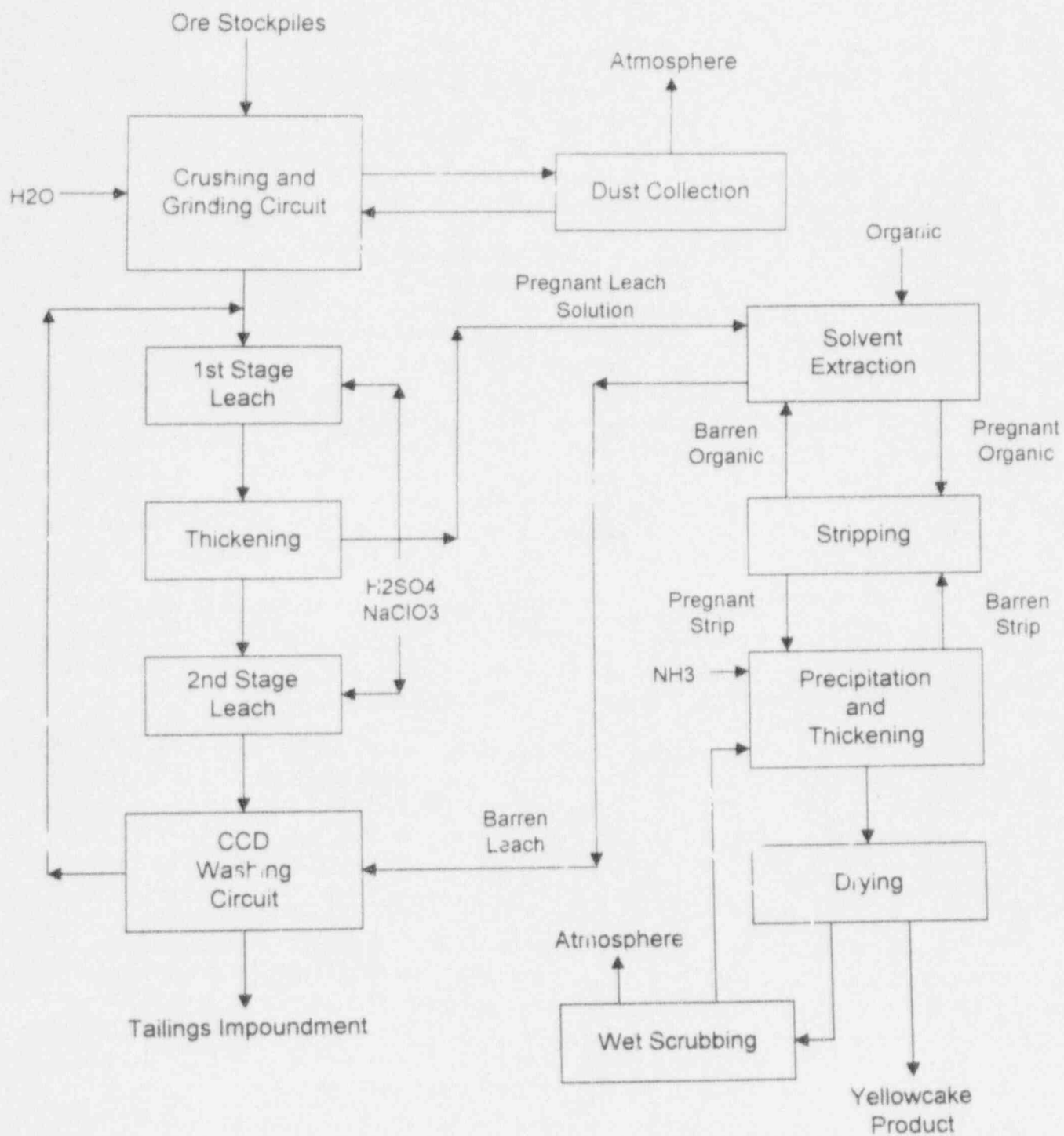


Figure 3.1 Generalized Flow Diagram of the Uranium Milling Process for the Shootaring Canyon Mill

3.1 Mill Circuit

Mined ore is delivered to the site by truck from mines in the Henry Mountains region. Once at the site, following weighing of the truck, an ore load is either deposited on the various stockpiles, or dumped directly into the ore hopper. A conveyor belt transports the ore from the dump pocket to the first stage of processing, grinding.

A semi-autogenous grinding (SAG) mill is used to grind the ore, and water is introduced to produce a slurry containing approximately 70 percent solids. This slurry is pumped to two storage tanks. Material from these tanks is then transferred to a two-stage acid leach process, in which sulfuric acid and sodium chlorate are used to leach the ore slurry. In between the two stages, a decant thickener is employed. The decanted liquid, containing dissolved uranium, is sent to the solvent extraction process, while the thickened solids are transferred to the multi-staged counter-current decantation (CCD) washing circuit.

The CCD circuit is employed to separate the strong acid liquor and wash the leached residue. During each CCD stage, solid particles settle to the bottom of the thickener tank, leaving a clarified uranium-bearing solution at the top. This solution is transferred "up-stage," where the same process of decantation takes place. Overflow from the top (i.e., first) CCD thickener tank is sent to the two-stage leach process mentioned above. The slurry at the bottom of the tank is progressively transferred "down" the circuit, and then from the final thickener tank, it is pumped to the tailings disposal impoundment.

Meanwhile, the uranium-bearing liquid is transferred to a solvent extraction process which is carried out in a series of mixing and settling vessels. First, the clarified and filtered liquid is mixed with an organic solvent (kerosene), and the two are then allowed to separate. After this mixing and settling is repeated several times, the resultant uranium-rich organic solvent is sent to a series of mixing and stripping tanks, in which an ammonium sulfate solution is used to strip the uranium from the organic solvent. The final uranium-rich ammonium sulfate solution is transferred to the precipitation circuit.

Within the precipitation circuit, the pregnant solution is neutralized and yellowcake is settled. The yellowcake is washed to remove soluble impurities, dewatered, and then dried in a multiple-hearth furnace. From there, the dried yellowcake is powdered and packaged in 55-gallon drums. Each drum holds an average of 340 kg (750 lb).

The product will be shipped by truck approximately 1300 miles to a conversion plant, with each truck shipment containing approximately 48 drums, or 16,300 kg (36,000 lb) of yellowcake product. PRL expects that 27 shipments will be made annually, based on mill capacity.

Air and gases from process vessels are passed through wet dust collectors or de-misters to remove dust, mists, and gaseous particles. Gaseous effluents and dust are discharged from any of eight stacks to promote atmospheric dilution and dispersion. Exhaust from the furnace is vented through a wet dust collector before being emitted to the atmosphere. Packaging operations are done within an enclosed room, with air from the room vented through the same wet dust collector as that used for the furnace exhaust. Finally, during

the entire route of production, concrete curbing and sumps are designed to intercept any spillage and return it to the appropriate process circuit

3.2 Mill Waste Disposal

3.2.1 Mill Tailings

Mill tailings will be deposited within the tailings impoundment that has been constructed in a natural depression to the southwest of the processing facility. Tailings will be slurried (they are approximately 45 percent solids by weight) through a 4-inch pipeline to the impoundment system, with a supporting 18-inch half-round pipeline used to collect any leakage. Currently, a 18-m (60-ft) high dam is located at the downstream edge of the impoundment, and a 9-m (30-ft) high cross-valley berm has been constructed within the impoundment approximately 610 m (2000 ft) upstream from the dam. The portion of the impoundment upstream of the berm was lined by PRL with two feet of compacted clay prior to starting mill operations in 1982 and partially subdivided further by sand dividers. A tailings drainage system was installed over the liner to facilitate dewatering of the wastes. The tailings produced during the three months of operation in 1982 were disposed in a lined subcell in this area.

FRL has proposed updating its liner design in advance of resuming operations. The proposed design consists, from top to bottom, of a flexible membrane synthetic liner, a leak collection/detection system, another flexible membrane liner, and a prepared and compacted clay base. A tailings leachate collection system would be installed on top of the upper synthetic liner and would drain to a sump from which the liquid will be used for tailings dust abatement or recycled back to the mill. The NRC and State of Utah DEQ staffs have agreed to having the State take the lead in the review of PRL's proposed liner design, which the State is conducting as part of its groundwater discharge permitting process for the Shootaring Canyon facility (see Section 9 for further information on the agreement between the NRC and State staffs). Until such time as an updated liner design is approved by the State and NRC and the liner subsequently installed, PRL will not be authorized to commence milling operations. PRL agreed to this license condition by telephone on April 3, 1997.

PRL plans to develop the tailings impoundment incrementally by dividing the 28-hectare (70-acre) impoundment in three sections of 8-10 hectares (20-25 acres) each. Initially, tailings produced following mill restart will be disposed in the re-lined portion of the impoundment upstream of the existing cross-valley berm. Once this area begins to be filled, a second cross-valley berm will be constructed approximately 245 m (800 ft) upstream of the main dam, and the area between the two berms lined. Tailings will be disposed next in this area (i.e., between the two berms) until it too is filled. The final area to be filled will be that between the main dam and the second berm. This area will have been lined with the commencement of tailings disposal in the second subcell.

Each of the three subcells will be subdivided further into a series of smaller disposal cells, using tailings sand dividers, to allow for interim stabilization, more efficient dewatering, and progressive reclamation of the cells. At no time during the life of the project will any of the three subcells exceed 16 hectares (40 acres) in size, and no more than two subcells

will be in operation at any one time. PRL expects to reduce dust and radon emanation from the impoundment by covering sufficiently-dewatered cells with an interim soil cover. Exposed tailings will be sprayed to further reduce dust generation.

The impoundment has been designed with a net capacity of 2600 acre-feet, which is sufficient to contain the total expected tailings to be produced during 15 years of operation. To reach this net capacity, PRL will need to raise the main dam an additional 12 m (40 ft) to increase the holding capacity. By license condition, PRL currently is not authorized to raise the height of the dam beyond its present level or to construct additional dams without prior NRC approval; this condition will be retained in the renewal license.

The present dam was designed and constructed in accordance with NRC Regulatory Guide 3.11 (NRC, 1977). As such, the potential for instability under static, as well as seismic, loads and of flood breach of the dam were analyzed by PRL as part of the preliminary and final designs for the dam. The NRC staff reviewed and approved the final design and reviewed records during construction of the dam. In approving the final design for the present dam, the NRC staff determined that PRL's proposed minimum freeboard of 13 feet provided an adequate margin to contain all upstream runoff resulting from a design storm (i.e., from the probable maximum 6-hour precipitation (PMP), 40 percent of the 6-hour PMP, and the 100-year 6-hour precipitation, all occurring in direct succession) and wave action coincident with the design flood (NRC, 1979a). Although PRL does not expect to be placing tailings against the dam until after 10 years of operation, the NRC staff will require, by license condition, that PRL maintain a minimum freeboard of 13 feet between the top of the present dam and the tailings pond level. In addition, the NRC staff will require that, at least three months prior to placing tailings against the dam, PRL will submit a detailed dam instrumentation program to NRC for approval. PRL agreed to these conditions by telephone on April 3, 1997.

The NRC staff has reevaluated the seismic stability of the tailings impoundment dam at its current height, based on the work of Bernreuter, et al. (1994), which estimated the horizontal peak ground acceleration (PGA) for the Shootaring Canyon site to be in the range of 0.16g to 0.3g. Woodward Clyde Consultants, who prepared the 1979 final design report for the impoundment dam, had analyzed the dam stability at a PGA of 0.08g. The NRC staff's analysis determined that the dam would be stable under a PGA of 0.3g. The licensee is, however, required currently to submit the results of a technical evaluation of the tailings dam and the existing cross-valley berm prior to a resumption of operations. Since PRL has yet to submit this report, NRC will continue to require, by license condition, that this technical evaluation be conducted and the results submitted to NRC prior to mill restart.

Finally, as mentioned in Section 2.4.2, a sump pump located at the downgradient edge of the present cross-valley berm failed in 1982. This pump had been installed to redistribute collected tailings leachate to reduce tailings dust emanation, and during the period when repairs to the pump were ineffective, an estimated two million gallons of tailings solution flowed down a clay-lined swale and impounded behind the 60-foot high tailings dam. Remedial actions performed by PRL included: (1) investigating the extent of seepage of the solution into the subsurface, (2) repairing the pump, (3) enhancing evaporation of the impounded solution through water sprays, (4) pumping the solution back above the cross-

valley berm, (5) excavating contaminated soil and near-surface rock and placing such material behind the cross-valley berm, and (6) conducting regular groundwater detection monitoring. The NRC staff verified the completion of these remedial actions in a subsequent compliance inspection.

3.2.2 Other Mill-Generated Wastes

PRL has committed in its license renewal application to returning all liquid effluents from the mill process buildings, with the exception of sanitary wastes, to the mill circuit or discharging them to the tailings impoundment. This is currently required by license condition and will continue to be so required. Sanitary wastes will be treated and disposed of through septic tanks and sanitary leach fields, in accordance with a State of Utah Department of Health permit.

Nonsalvageable solid wastes (e.g., filters, pumps) contaminated in the mill process and which cannot be decontaminated below NRC unrestricted release limits will be placed in the tailings impoundment. PRL states that void space in such material will be minimized prior to its emplacement in the impoundment.

3.3 Inspections of the Tailings Disposal System

PRL has committed to conducting and documenting inspections of the tailings disposal system on a daily basis while the mill is operating and monthly during standby periods. PRL states that NRC Regulatory Guides 3.11 and 3.11.1 (NRC, 1980) were consulted in developing its inspection program, which will address seepage, settlement and cracking, tilting, pool level, and abutments.

From PRL's discussion in the renewal application, the NRC staff is not able to determine how or to what extent PRL's inspection plan addresses the recommendations in the two Regulatory Guides. Therefore, the NRC staff will require, by license condition, that PRL conduct its inspection program of the tailings disposal system in conformance with Regulatory Guide 3.11.1. PRL agreed to this condition by telephone on April 3, 1997.

4.0 EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 Introduction

As noted above, the NRC staff previously has assessed the environmental impacts associated with the construction and commercial operation of the Shootaring Canyon mill (NRC, 1979a). Discussion in this section will include summaries of the staff's previous findings, as well as an assessment of impacts associated with any changes since 1979.

4.2 Air Quality Impacts

Air quality impacts during operational phases of the mill are expected to be below Federal and State standards (NRC, 1979a). PRL will control fugitive dust and radon releases from the tailings impoundment through spraying and interim soil covers. Spraying will be used to control dust emissions from ore stockpiles which are not immediately processed.

Volatile fuels and reagents are stored in closed tanks to minimize the escape of vapors to the atmosphere. Effluents from the laboratory will be collected by fume hoods and discharged through a scrubber and stack prior to release to the atmosphere. Other emissions will be discussed in Section 4.6, Radiological Impacts.

4.3 Historical and Cultural Resources

An historical survey was conducted in the project vicinity as part of the initial application, and no historical sites within 8 km (5 miles) of the site were identified. As noted previously, only a small area of lithic scatter was identified prior to construction, and the artifacts were salvaged by the State of Utah.

The NRC determined, in consultation with the State Historical Preservation Officer (SHPO), that the project will not affect any properties included in or eligible for inclusion in the National Register (NRC, 1979a).

The licensee will continue to be required to conduct, as a minimum, an archaeological artifact survey of areas not previously surveyed prior to their disturbance.

4.4 Impacts to Water Resources

4.4.1 **Surface Water Impacts**

The NRC staff has determined previously that operation of the mill will have minimal effects on the surface waters in the site vicinity (NRC, 1979a) because: (1) mill effluents are not discharged to surface waters; (2) the site is graded so that mill surface runoff is directed into the tailings impoundment; (3) sanitary wastes are treated in septic tanks and then dispersed through State-approved buried leach fields; and (4) tailings from mill operations are discharged by pipeline to a lined impoundment. Finally, as noted above, PRL has committed to regular inspections of the tailings disposal system, including the main impoundment dam.

4.4.2 **Groundwater Impacts**

Groundwater beneath or in the vicinity of the site should not be adversely impacted by the resumption of milling operations. The tailings impoundment will be lined with a multi-layered system, composed of two flexible membrane synthetic liners over a prepared and compacted clay base. A leak detection system installed between the two synthetic liners will be monitored regularly to determine whether there is any leakage from the impoundment. PRL will be required, by license condition, to propose corrective actions to NRC in the event of a leak.

In addition, as discussed in Section 4.6.2, groundwater detection monitoring wells located immediately downgradient of the impoundment dam will be sampled semiannually for indicator parameters. Concentrations of these parameters above NRC-approved limits would require PRL to propose a broader range of constituents for which to sample to determine the presence of hazardous constituents related to the tailings impoundment.

These detection monitoring requirements are currently contained as license conditions in SUA-1371 and will continue to be so required in the renewal license.

4.5 Impacts on Ecological Systems

Surveys for the presence of endangered species, both plant and animal, were conducted as part of the initial licensing action. While no endangered plant species were identified in the project area, the surveys did indicate the possible presence of the American peregrine falcon (*Falco peregrinus anatum*). However, the NRC staff did not consider the slight increase in the human population associated with the operation of the mill to have a significant impact on the peregrine falcon, in light of the large numbers of people already visiting the GCNRA annually (NRC, 1979a). The site also is located within the range of the Southwestern willow flycatcher (*Empidonax traillii extimus*); however, this bird's habitat requirements makes its likelihood of utilizing the site extremely low.

Impacts to terrestrial and aquatic biota from mill operations were assessed previously by the NRC staff (NRC, 1979a). At that time, the NRC staff determined that, although the significant impacts to wildlife were not expected, the actual extent of these impacts could not be quantified; therefore, the NRC staff required, at that time, PRL to conduct a wildlife monitoring program as part of its operational effluent and environmental monitoring program. Due to the limited extent of the initial mill operations in 1982, this wildlife monitoring program was not of a sufficient duration to provide results to support the NRC staff's initial determination. As part of the licensing renewal process, PRL agreed, by telephone on April 9, 1997, to conduct and document a daily visual inspection of the tailings impoundment to monitor for wildlife. Depending on the results of this monitoring, PRL may need to take appropriate corrective actions to mitigate any potential harmful effects.

4.6 Radiological Impacts

PRL has proposed to define two modes of activity at the mill: (1) "operational" and (2) "interim" or "standby." The operational mode is defined as any time the mill is in the normal commercial production of yellowcake, as contrasted with the interim mode which occurs when no yellowcake is produced for a period of 30 days or more. In examining potential radiological impacts, the NRC staff has chosen to address these modes separately in the following discussion.

4.6.1 **Operational Mode**

The Shootaring Canyon mill operated for only three months in 1982, and therefore, operational data is very limited for review. Sampling results discussed in this section were provided by the licensee in accordance with the requirements of 10 CFR 40.65.

a. Data

Air particulate sampling

PRL's air particulate monitoring program during past operations consisted of five continuous high volume air samplers: two downwind of the tailings impoundment and ore stockpiles; one upwind of the tailings impoundment; and one each at the nearest residence and a background station at the Bullfrog Marina. Measured airborne concentrations of natural uranium (U-nat), thorium-230 (Th-230), radium-226 (Ra-226), and lead-210 (Pb-210) taken during previous operations were small fractions (less than one percent) of the applicable 10 CFR Part 20 limits for unrestricted areas.

Stack effluent sampling

During mill operations in 1982, PRL sampled the sample preparation and the yellowcake dryer and packaging stacks once each. Sample results showed releases below the applicable 10 CFR Part 20 limits for U-nat. The licensee was required to perform quarterly sampling of the yellowcake dryer/package stack and semiannual sampling of the ore crusher stack.

Radon gas monitoring

Samples were collected at the airborne particulate monitoring stations during 1982-84. Levels measured during this timeframe were a small fraction of the applicable 10 CFR Part 20 limits.

Direct gamma exposure

Direct gamma exposure measurements were collected at the same locations used for airborne particulate and radon gas sampling. Measurements taken between 1982 and 1984 showed little change from background readings, with the highest readings recorded at the ore stockpile monitoring station.

Surface water sampling

During 1982 to 1984, samples were collected from four surface seepage ponds and Shooting Creek. Analysis of these samples shows that sampled constituent levels were unchanged from pre-operational levels.

Groundwater sampling

Groundwater data collected from four groundwater wells and three drinking water wells, from 1982 to 1984, indicated that measured concentrations of radionuclide and chemical constituents were unchanged from pre-operational levels.

b. Proposed Operational Monitoring Program

PRL has proposed the following environmental and effluent monitoring program for the operational mode:

- Air particulate monitoring will be conducted for U-nat, Th-230, Ra-226, and Pb-210 at five continuous environmental sampling stations. Three stations are located at site locations expected to see the highest readings (ore pad, upwind and downwind of the tailings impoundment), one at the nearest residence in Ticaboo, and one at a control location (background station at Bullfrog);
- Stack samples will be collected semiannually from the ore crusher stack and quarterly from the yellowcake dryer and packaging stack and analyzed for U-nat, Th-230, Ra-226, and Pb-210. Flow rates from both stacks will also be measured semiannually;
- Quarterly environmental radon measurements will be performed at the same locations as for air particulate sampling;
- Direct radiation exposure measurements will be taken quarterly at the air particulate sampling locations using thermoluminescent dosimeters (TLDs);
- Vegetation samples will be collected annually (during the spring growing season) from animal grazing areas downwind from the mill. Samples will be held for one year and analyzed, if required, for Th-230, Ra-226, and Pb-210;
- Soil sampling will be performed annually at the air particulate sampling locations and analyzed for U-nat;
- Surface water samples will be collected semiannually from two seeps, located along Shooting Creek. These samples will be analyzed for U-nat, gross alpha, arsenic, selenium, and pH; and
- Groundwater samples will be collected semiannually from three monitoring wells located at the downgradient edge of the tailings dam (RM-4, -5, and -6) and a single upgradient well (RM-1), all of which are completed in the uppermost aquifer, the Entrada. Samples will be analyzed for U-nat, arsenic, selenium, chloride, and pH, with the results compared with specified threshold limits. Corrective actions will be taken if these limits are approached or if trends of increasing concentrations are observed. PRL also proposes to measure water level elevations in these four wells in order to calculate the groundwater flow rate and direction in the Entrada.

The NRC staff has reviewed PRL's proposed operational monitoring program against the staff's recommendations in Regulatory Guide 4.14 and considers the program acceptable, given the following modifications:

- The flow rate from the yellowcake dryer and packaging stack shall be determined quarterly at the time stack sampling is conducted.
- Soil samples shall be analyzed for U-nat, Th-230, and Ra-226.

These modifications will be required by license condition. PRL agreed to the modifications by telephone call on March 31, 1997.

In addition, PRL will need to comply with the U.S. Environmental Protection Agency's requirements under 40 CFR 61.252 to keep radon-222 emissions from its mill tailings pile from exceeding 20 pCi/m²-s of radon-222.

4.6.2 Interim/Standby Mode

a. Data

With the renewal of SUA-1371 in 1986 for "possession-only" status, PRL was not required to: (1) conduct stack sampling, (2) perform radon gas monitoring, (3) take direct radiation exposure measurements, (4) sample surface water, soil, or vegetation locations, or (5) conduct meteorological sampling.

Air particulate sampling was conducted semiannually at two locations, one upwind of the tailings impoundment and one downwind of the ore stockpiles and the impoundment. Measured airborne concentrations of U-nat, Th-230, Ra-226, and Pb-210 were less than one percent of the applicable 10 CFR Part 20 limits for unrestricted areas, throughout the interim shutdown period.

PRL was required by license condition to conduct a groundwater detection monitoring program to ensure compliance with the requirements in 10 CFR Part 40, Appendix A. This program required PRL to collect samples from three monitoring wells located at the downgradient edge of the tailings dam (RM-4, -5, and -6), on a semiannual basis, and to analyze these samples for U-nat, arsenic, selenium, chloride, and pH. Sampling results were compared with NRC-approved threshold limits contained in the license, and if these limits were exceeded, PRL was required further to propose, within a set period of time, an expanded monitoring program to NRC for approval. Data collected since 1985 as part of this detection monitoring program show negligible changes in the indicator parameters from their originally sampled levels.

b. Proposed Interim Monitoring Program

During the interim mode, PRL proposes that the following not be conducted, performed, or measured: (1) stack sampling, (2) radon gas monitoring, (3) direct radiation exposure measurements, (4) surface water, soil, or vegetation sampling, and (5) meteorological sampling.

In addition, PRL proposes to reduce airborne particulate sampling to a single location downwind of the tailings impoundment and ore stockpiles. Samples would be collected semiannually and analyzed for U-nat and Ra-226.

Groundwater samples would continue to be collected semiannually and analyzed for U-nat, arsenic, chloride, selenium and pH, but only from wells RM-4, -5, and -6. Groundwater flow rates and direction would not be calculated.

Despite the volatility in the market for yellowcake at the present, the NRC staff does not consider a 30-day period of non-production to be significant enough to involve a major modification to a licensee's environmental and effluent monitoring program, such as PRL proposes. Therefore, the NRC staff does not find PRL's proposed interim monitoring program acceptable, and will instead require, by license condition, that PRL continue to conduct its operational monitoring program, with the exception of stack sampling, during standby periods. Should a standby period become extended, PRL will have the opportunity to request a license amendment to modify its operational monitoring program. PRL agreed to this license condition by telephone call on March 31, 1997.

4.6.3 Radiological Assessment

a. Offsite Impacts

The radiological impacts from milling operations at the Shooting Canyon site have been assessed previously and determined to fall well below Federal limits on doses to individuals and the general public (NRC, 1979a and 1986a).

Although PRL's license was renewed in 1986 for "possession-only" status, the NRC staff included, as part of the EA prepared at that time, an analysis of the potential radiological impacts from future operations. Assuming in its analysis a nominal milling rate of 1000 tons of ore per day, an average ore grade of 0.15 percent, and a yellowcake production rate of approximately 1,000,000 pounds per year, the NRC staff determined that both site boundary radionuclide concentrations and individual dose commitments were small fractions of the then applicable standards.

For the current licensing action (i.e., the proposed resumption of operations), the NRC staff re-examined the analysis prepared in 1986, because PRL did not include the results from an updated radiological assessment as part of its renewal application. The NRC staff's review was conducted in light of the NRC's revisions to the radiation dose standards in 1994, which implemented both a new dosimetry and a lower public dose limit. Based on its review, the NRC staff finds the 1986 analysis to be still valid, due to the conservative nature of the assumptions used (e.g., spraying only reduced fugitive dust from the tailings impoundment by 50 percent). The staff determined that the nearest resident (located in Ticaboo) will receive less than 10 microsieverts (1 millirem (mrem)) per year from site releases, which falls well below dose limits to a member of the public contained in NRC's 10 CFR Part 20 and the U.S. Environmental Protection Agency's 40 CFR Part 190. In addition, a hypothetical individual present continuously where the highest exposures would be received (i.e., at the east fence line) would receive

approximately 0.9 millisieverts (mSv) (90 mrem) per year from inhaled radionuclides, which is 0.1 mSv (10 mrem) less than the NRC dose limit in 10 CFR Part 20.

b. Radiological Impact on Biota Other than Man

Although no guidelines concerning acceptable limits of radiation exposure have been established for the protection of species other than man, it is generally agreed that the limits for humans are also conservative for other species. Doses from gaseous effluents to terrestrial biota (such as birds and mammals) are quite similar to those calculated for man and arise from the same dispersion pathways and considerations. Because the effluents of the facility will be monitored and maintained within safe radiological protection limits for man, no adverse radiological impact is expected for resident animals.

4.7 In-Plant Safety

The NRC, through 10 CFR Part 20 and license conditions, requires a radiological safety program that contains the basic elements needed to assure that exposures are kept low or, in any event, as low as is reasonably achievable (ALARA). Therefore, an in-plant radiation safety program which includes the following is required:

- Qualified management of the radiation safety program and appropriate training of personnel,
- Written radiation procedures,
- Airborne and surface contamination sampling and monitoring,
- Internal and external radiation monitoring programs,
- An approved respiratory protection program, and
- An annual ALARA audit and frequent in-house inspections.

In addition, during routine radiation safety inspections, the NRC staff observes in-plant industrial safety for deficiencies and brings any deficiencies found to the attention of mill management.

The NRC considers the program of in-plant safety, as required by Federal regulations, and the radiation safety program, as defined by 10 CFR Part 20, to be sufficient to protect the worker during normal operations. The NRC evaluation of the licensee's radiation safety program is discussed more fully in the SER.

5.0 ENVIRONMENTAL EFFECTS OF ACCIDENTS

5.1 Failure of Chemical Storage Tanks

A variety of industrial chemicals, process fluids, slurries, and flammable liquids, are stored in tanks at the mill. Various systems have been implemented to contain or direct spillage, whether routine or unplanned. A failure of any chemical holding tank would first be contained by engineered dikes or curbs. Sumps are installed to collect the spillage, so that it can be pumped back to the appropriate process circuit. If the spilled volume was too great, such as a rupture in one or more of the large production tanks, flow would be discharged to the tailings impoundment by portable sump pumps or by gravity flow, as for the CCD tanks.

5.2 Fire and Explosions

The greatest fire hazard is found within the solvent extraction (SX) circuit, which is contained within the main mill building. To address this hazard, the solvent extraction tanks are covered and protected by a carbon dioxide (CO₂) fire suppression system that is activated by heat detectors located inside the tank covers. A foam (wet) sprinkler system, also heat-activated, is installed in the ceiling of the SX area, and two fire hydrants and hose stations are located outside the SX area.

The plant water storage tank has a 150,000 gallon reserve for fire fighting, with constant water pressure maintained by an electric pump. Diesel-powered water pumps provide a backup to the electric pump, and these pumps will start if: (1) there is a drop in water pressure; (2) there is a loss of power to the electric pump; (3) a fire alarm is pulled; or (4) a mill-wide alarm system, encompassing both automatic sensors and manual pull stations, is activated.

Other mill buildings (e.g., offices, laboratory area) are equipped with sensor-operated fire suppression systems. Also available are fire hydrants outside the mill facility and hose stations located inside the plant buildings. All fire suppression systems will be checked routinely.

Currently, PRL is required by license condition to make repairs to the wet foam and sprinkler fire suppression systems prior to a resumption of mill operations. This condition will be retained in the renewal license.

5.3 Pipeline Failure

The rupture of the pipeline between the mill and the tailings impoundment would be caught by automatic alarms or by routine daily inspection. If a leak did occur, the 18-inch polyethylene half-pipe supporting the pipeline would catch leaking fluids and transport them to the tailings impoundment via gravity flow. Fresh water from the mill could be used to flush any residual material in the half-pipe to the impoundment.

5.4 Minor Pipe or Tank Leakage

Minor leaks resulting from, for example, loose connections in piping or tanks overflowing, will be collected in sumps designed for this type of spill. Sump pumps will be used to return the material to the circuit, and the reason for the spill will be determined and corrected.

5.5 Tailings Impoundment System Accidents

The tailings impoundment is designed to retain the process wastes generated at the Shootaring Canyon facility. The tailings dam was designed and constructed in accordance with NRC Regulatory Guide 3.11, and the impoundment will be lined with a composite clay/synthetic liner. The impoundment dam and the liner leak detection system will be monitored regularly as part of the licensee's site inspection program.

To address the potential failure of a cross-valley berm or of a sump pump, as occurred in 1982, PRL will line not only the active cell (i.e., that cell which is accepting tailings currently) but also the inactive cell immediately downgradient. In addition, PRL will construct the second cross-valley berm as tailings disposal commences in the existing upstream cell. In this way, tailings solutions released within the impoundment due to the failure of a berm or pump will not flow into unlined areas. If such an accident were to occur, PRL would need to take appropriate corrective actions, including immediate notification of NRC, to address the event, actions which would be verified by NRC through compliance inspections.

5.6 Transportation Accidents

As noted in Section 2.7, State Highway 276 and Bullfrog Basin Marina may receive heavy traffic especially during summer months. For this reason, there is a concern over the potential for accidents involving trucks transporting ore or chemicals to the site or barrelled yellowcake offsite. The NRC staff previously examined potential impacts from transportation accidents (NRC, 1979a). In its analysis, the NRC staff considered: (1) the amount of material transported per shipment, (2) the number of shipments of the material per year, (3) the likelihood of an accident; (4) the severity of a potential accident; (5) the amount of material potentially released; and (6) potential impacts to the general population. In the case of yellowcake, the NRC staff also used experience gained from a September 1977 accident at another location. Based on its review, the NRC staff determined that the potential impacts would not be significant (NRC, 1979a). For the proposed licensing action, the staff has reviewed the 1979 analysis and considers the results of the analysis still to be applicable.

PRL will follow appropriate NRC and U.S. Department of Transportation regulations in packaging yellowcake and transporting it offsite. In addition, PRL will implement emergency procedures in the event of an accident.

6.0 RECLAMATION AND DECOMMISSIONING

PRL submitted a revised detailed site decommissioning and reclamation plan by letter dated January 10, 1997. NRC is reviewing the plan in accordance with the requirements of 10 CFR Part 40, Appendix A, and applicable staff guidance documents. PRL will be required to perform reclamation of the site in accordance with an NRC-approved final reclamation plan.

The decommissioning of the facility will be conducted under a plan approved by the NRC. The final plan must be submitted to the NRC for approval at least 12 months prior to any planned activity. This requirement will continue to be a license condition in PRL's renewal license.

7.0 ALTERNATIVES

The action under consideration is the renewal of Source Material License SUA-1371, for resumption of mill operations at the Shootaring Canyon uranium mill, as requested by PRL. The alternatives available to NRC are to:

- (1) Renew the license with such conditions as are considered necessary or appropriate to protect public health and safety and the environment; or
- (2) Deny renewal of the license.

Based on its review of the information identified in Section 1.3.2, the NRC staff has concluded that the environmental impacts associated with the proposed action do not warrant denial of the license renewal. It is the staff's conclusion that the impacts associated with the license renewal are within the realm of impacts anticipated in the FES (NRC, 1979a) and the previous EA (NRC, 1986a). Additionally, in the SER prepared for this action, the staff has reviewed the licensee's proposed action with respect to the criteria for license issuance specified in 10 CFR Part 40, Section 40.32, and has no basis for denial of the proposed action.

8.0 FINANCIAL SURETY

Under 10 CFR Part 40, Appendix A, Criterion 9, licensees are required to establish a financial surety adequate to cover the estimated costs for (1) decommissioning and decontamination of the mill and mill site, (2) reclamation of any tailings or waste disposal areas, (3) ground water restoration, as warranted, and (4) the long-term surveillance fee. The surety is based on an estimate which must account for the total costs that would be incurred if an independent contractor were contracted to perform the work. The surety estimate must be approved by NRC and be based on an NRC-approved decommissioning and reclamation plan. The licensee must also provide the surety arrangement through a financial instrument acceptable to NRC. The licensee's surety mechanism will be reviewed by NRC annually to assure that sufficient funds are available to complete reclamation. Additionally, the amount of the surety should be adjusted to recognize any increases or decreases in liability resulting from inflation, changes in engineering plans, or other conditions affecting cost.

PRL submitted a revised detailed site decommissioning and reclamation plan by letter dated January 10, 1997. In addition to providing in the plan a detailed description of activities necessary to complete decommissioning and reclamation at the site, PRL also estimated the total cost that an independent contractor hired to perform these activities would incur to complete the work. PRL estimated this cost to be \$6,784,159.

By letter dated February 26, 1997, the NRC staff found this cost estimate to be adequate for the purposes of resuming mill operations. PRL supplied documentation, by letter dated March 14, 1997, that its surety amount for the Shootaring Canyon site was in excess of \$6,784,159. The NRC staff has reviewed the documentation and finds the revised surety amount to be acceptable.

PRL will be required by license condition to maintain a financial surety arrangement in accordance with the requirements of Criterion 9. The surety requirements will be reviewed at least annually by NRC to assure that the funds and the surety arrangement are acceptable.

9.0 CONSULTATION WITH AFFECTED FEDERAL AND STATE AGENCIES

In the interest of reducing dual regulation and avoiding duplication of reviews, the NRC and State of Utah DEQ staffs agreed in a telephone call on December 3, 1996, that the DEQ would take the lead in the review of PRL's liner design for the tailings impoundment. This means that the NRC staff would defer to the State on a determination relative to the liner design, as long as the NRC staff is confident that the State's review is protective of public health and safety, including radiological hazards. The State of Utah DEQ staff is conducting its review as part of its process for granting a groundwater discharge permit for the Shootaring Canyon mill site. The details of PRL's proposed liner design are summarized in Section 3.2.1.

On March 20, 1997, a draft copy of this EA was sent electronically to the State of Utah DEQ and the U.S. National Park Service (NPS) offices in Denver, Colorado, and the Glen Canyon National Recreation Area. The State of Utah DEQ indicated on March 27, 1997, that it had no comments on the draft EA. In a telephone conversation on March 27, 1997, the NRC staff discussed with NPS representatives the NPS' comments and concerns with the draft EA.

Concerns raised by the NPS included: (1) the location of the tailings impoundment in a drainage (an operational and reclamation concern); (2) socioeconomic impacts associated with the development of the planned Ticaboo townsite; (3) the frequency of required environmental monitoring sampling; and (4) additional sampling requirements in the areas of groundwater and wildlife monitoring.

In response to these concerns, the NRC staff considers the following:

- The proposed action is to renew SUA-1371 to authorize the resumption of mill operations. The environmental impacts associated with siting and constructing the impoundment in its current location were reviewed by the NRC staff in 1979 and found to be acceptable (NRC, 1979a). The NRC staff is in the process of reviewing

PRL's detailed site reclamation plan, and the NPS will have an opportunity to be involved in this review process.

- The socioeconomic impacts associated with the Ticaboo townsite were assessed in detail by NRC in 1979 and found to be acceptable (NRC, 1979a). The NRC staff still considers that assessment to be valid (see Section 2.6).
- The licensee's environmental and effluent monitoring program during operational periods is in conformance with NRC staff recommendations for such programs at uranium mills, as is described in Regulatory Guide 4.14. In addition, with the exception of stack sampling, PRL will be required to conduct its operational monitoring program during standby periods also. A site-specific groundwater detection monitoring program was developed between the NRC staff and PRL during 1984-88 to meet the requirements of Appendix A to 10 CFR Part 40. This detection monitoring program will continue to be required by license condition in the renewal license.
- With respect to groundwater sampling, NRC requirements under 10 CFR 40, Appendix A, require licensees to conduct sampling at the point of compliance (POC) in the uppermost aquifer. At the Shootaring Canyon site, PRL has been and will continue to be required to sample the Entrada aquifer at the designated POC wells (RM-4, -5, and -6). In addition, PRL will be required to conduct regular monitoring of the impoundment leak detection system and surface water sampling (at seeps) as additional groundwater protection measures.

Concerning wildlife monitoring, and specifically use of the tailings impoundment by wildlife, PRL has agreed to conduct and document a daily visual inspection of the impoundment to monitor for these purposes (Section 4.5). Based on the results of this monitoring, appropriate corrective actions can be implemented by the licensee.

10.0 FINDING OF NO SIGNIFICANT IMPACT

PRL has applied to NRC to renew Source Material License SUA-1371 to authorize the resumption of operations at the Shootaring Canyon uranium mill, located in Garfield County, Utah. NRC has reexamined actual and potential environmental impacts associated with yellowcake production at the mill site, and has determined that renewal of the source material license (1) will be consistent with requirements of 10 CFR Part 40, (2) will not be inimical to the public health and safety, and (3) will not have long-term detrimental impacts on the environment.

Therefore, based on an evaluation of PRL's renewal request, the NRC staff has determined that the proper action is to issue a FONSI in the *Federal Register*. The following statements support the FONSI and summarize the conclusions resulting from the staff's environmental assessment:

- An acceptable environmental sampling program will be in place to monitor effluent releases and to detect if appropriate limits are exceeded;

- The licensee will implement an intensive, routine inspection program of the mill process building, associated facilities, and tailings retention impoundments, and conduct an annual ALARA audit program;
- Standard operating procedures will be in place for all operational process activities involving radioactive materials that are handled, processed, or stored;
- Mill tailings and process liquid effluents from the mill circuit will be discharged to a lined tailings impoundment, with a leak detection system;
- The licensee will implement an acceptable groundwater detection monitoring program to ensure compliance with the requirements of 10 CFR Part 40, Appendix A;
- The licensee will conduct site decommissioning and reclamation activities in accordance with NRC-approved plans; and
- Because the staff has determined that there will be no significant impacts associated with approval of the license renewal, there can be no disproportionately high and adverse effects or impacts on minority and low-income populations. Consequently, further evaluation of 'Environmental Justice' concerns, as outlined in Executive Order 12898 and NRC's Office of Nuclear Material Safety and Safeguards Policy and Procedures Letter 1-50, Rev.1, is not warranted.

Based on these findings, the NRC staff recommends that PRL's license for the resumption of yellowcake production at the Shootaring Canyon uranium mill be renewed. The source material license shall be based upon the licensee's renewal application, this EA, the SER, and the license conditions which address environmental issues (see Section 11). License conditions addressing radiation safety concerns can be found in the SER.

11.0 CONCLUSION INCLUDING ENVIRONMENTAL LICENSE CONDITIONS

Upon completion of the environmental review of PRL's application for renewal of Source Material License SUA-1371, the NRC staff has concluded that the operation of the Shootaring Canyon uranium mill, in accordance with the following conditions to be included in the renewed source material license, is protective of health, safety, and the environment, and fulfills the requirements of 10 CFR Part 51. Therefore, the NRC staff recommends renewal of SUA-1371, subject, in part, to the following conditions:

1. The mill production rate shall not exceed 1,004,000 pounds of yellowcake per year.
2. A. The licensee may, without prior NRC approval, and subject to the conditions specified in Part B of this condition:
 - (1) Make changes in the facility or process, as presented in the application.
 - (2) Make changes in the procedures presented in the application.

- (3) Conduct tests or experiments not presented in the application.
- B. The licensee shall file an application for an amendment to the license, unless the following conditions are satisfied.
 - (1) The change, test, or experiment does not conflict with any requirement specifically stated in this license, or impair the licensee's ability to meet all applicable NRC regulations.
 - (2) There is no degradation in the essential safety or environmental commitments in the license application, or provided by the approved reclamation plan.
 - (3) The change, test, or experiment are consistent with the conclusions of actions analyzed and selected in this EA.
- C. The licensee's determinations concerning Part B of this condition, shall be made by a "Safety and Environmental Review Panel (SERP)." The SERP shall consist of a minimum of three individuals. One member of the SERP shall have expertise in management and shall be responsible for managerial and financial approval changes; one member shall have expertise in operations and/or construction and shall have responsibility for implementing any operational changes; and, one member shall be the corporate radiation safety officer (CRSO) or equivalent, with the responsibility of assuring changes conform to radiation safety and environmental requirements. Additional members may be included in the SERP as appropriate, to address technical aspects such as health physics, groundwater hydrology, surface-water hydrology, specific earth sciences, and other technical disciplines. Temporary members or permanent members, other than the three above-specified individuals, may be consultants.
- D. The licensee shall maintain records of any changes made pursuant to this condition until license termination. These records shall include written safety and environmental evaluations, made by the SERP, that provide the basis for determining changes are in compliance with the requirements referred to in Part B of this condition. The licensee shall furnish, in an annual report to NRC, a description of such changes, tests, or experiments, including a summary of the safety and environmental evaluation of each. In addition, the licensee shall annually submit to the NRC changed pages to the Operations Plan and Reclamation Plan of the approved license application to reflect changes made under this condition.

The licensee shall submit to NRC within 60 days of the issuance date of the renewal license, for review, the standard operating procedures (SOPs) needed to implement this license condition. The licensee shall not implement any provision of this license condition until NRC has found the proposed SOPs acceptable.

3. Standard operating procedures shall be established and followed for all operational process activities involving radioactive materials that are handled, processed, or stored. SOPs for operational activities shall enumerate pertinent radiation safety practices to be followed. Additionally, written procedures shall be established for non-operational activities to include in-plant and environmental monitoring, bioassay analyses, and instrument calibrations. An up-to-date copy of each written procedure shall be kept in the mill area to which it applies.

All written procedures for both operational and non-operational activities shall be reviewed and approved in writing by the Environmental and Radiological Health Supervisor (ERHS) before implementation and whenever a change in procedure is proposed to ensure that proper radiation protection principles are being applied. In addition, the ERHS shall perform a documented review of all existing operating procedures at least annually.

4. The licensee shall notify NRC and the State Historical Preservation Officer immediately if artifacts are discovered during disturbance of the mill or tailings disposal areas and shall perform an archaeological survey of previously unsurveyed areas prior to their disturbance.
5. The licensee is hereby authorized to possess byproduct material in the form of uranium waste tailings and other uranium byproduct waste generated by the licensee's milling operations authorized by this license. Mill tailings shall not be transferred from the site without specific prior approval of NRC in the form of a license amendment. The licensee shall maintain a permanent record of all transfers made under the provisions of this condition.
6. All liquid effluents from mill process buildings, with the exception of sanitary wastes, shall be returned to the mill circuit or discharged to the tailings impoundment.
7. The licensee is not authorized to commence mill operations until a final tailings impoundment liner design has been approved by NRC and the approved liner installed in the impoundment.
8. The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criteria 9 and 10, adequate to cover the estimated costs, if accomplished by a third party, for decommissioning and decontamination of the mill and mill site, for reclamation of any tailings or waste disposal areas, ground-water restoration as warranted and for the long-term surveillance fee. Within three months of NRC approval of a revised reclamation/decommissioning plan, the licensee shall submit, for NRC review and approval, a proposed revision to the financial surety arrangement if estimated costs in the newly approved plan exceed the amount covered in the existing financial surety. The revised surety shall then be in effect within 3 months of written NRC approval.

Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criteria 9 and 10, shall be submitted to NRC at least 3 months prior to the anniversary of the effective date of the approved surety arrangement. If NRC has not approved a proposed revision to the surety coverage 30 days prior to the expiration date of the existing surety arrangement, the licensee shall extend the existing surety arrangement for 1 year. Along with each proposed revision or annual update, the licensee shall submit supporting documentation showing a breakdown of the costs and the basis for the cost estimates with adjustments for inflation, maintenance of a minimum 15 percent contingency fee, changes in engineering plans, activities performed and any other conditions affecting estimated costs for site closure. The basis for the cost estimate is the NRC-approved reclamation/decommissioning plan or NRC-approved revisions to the plan. The previously provided guidance entitled "Recommended Outline for Site Specific Reclamation and Stabilization Cost Estimates" outlines the minimum considerations used by NRC in the review of site closure estimates. Reclamation/decommissioning plans and annual updates should follow this outline.

The currently approved financial surety arrangement, a Surety Trust Agreement between Plateau Resources Limited and First Interstate Bank of Commerce, shall be continuously maintained in an amount no less than \$6,784,159 for the purpose of complying with 10 CFR 40, Appendix A, Criteria 9 and 10, until a replacement is authorized by the NRC.

9. Notwithstanding the decommissioning plan in the renewal application, the licensee shall submit a detailed decommissioning plan to NRC at least twelve (12) months prior to planned final shutdown of mill operations.
10. The licensee shall not expand the tailings impoundment area by raising the height of the dam above its present elevation or by constructing any additional dams without prior NRC approval in the form of a license amendment.
11. The licensee shall comply with the following regarding the operation of the tailings disposal system:
 - A. A detailed embankment instrumentation program shall be submitted for NRC approval at least 3 months prior to placing tailings effluent against the current dam or raising the current dam above its present height.
 - B. A minimum of 13 feet of freeboard shall be maintained between the top of the current dam and the tailings pond level.
12. The licensee shall implement a groundwater detection monitoring program to ensure compliance with 10 CFR 40, Appendix A, which includes the following:
 - A. The licensee shall sample monitoring wells RM-4, RM-5 and RM-6, on a semiannual basis, with samples taken at least 4 months apart. The samples shall be analyzed for arsenic, chloride, selenium, U-nat, and pH.

- B. The licensee shall compare the analysis results against the following threshold values: arsenic = 0.022 mg/l, chloride = 40 mg/l, selenium = 0.022 mg/l and pH = 6.8 standard units or less. If the threshold values are exceeded, the licensee shall propose, within 60 days of a measured exceedance, an expanded detection monitoring program to define the extent and concentration of hazardous constituents in the uppermost aquifer.
 - C. The licensee shall submit the data and comparison results required under subsections A and B, respectively, with the semiannual reports required under 10 CFR 40.65.
 - D. The licensee shall report at least annually in accordance with the reporting requirements specified in subsection C, the rate and direction of groundwater flow under the tailings impoundment.
13. The licensee shall conduct environmental and effluent monitoring described in Table 5.5.7 of the license renewal application, with the following modifications:
- A. During periods of standby, stack sampling is not required.
 - B. The flow rate from the yellowcake dryer and packaging stack shall be measured quarterly at the time stack sampling is conducted.
 - C. Soil samples shall be analyzed for U-nat, Th-230, and Ra-226.
 - D. A daily visual inspection of the tailings impoundment area shall be conducted to monitor for use of the impoundment by wildlife and the results documented.

This license condition shall take effect with the commencement of ore processing through the mill.

14. Prior to resuming operations, the licensee shall conduct and document a technical evaluation of all existing cross-valley berms and the tailings dam, including a review of all embankment instrumentation data and inspection reports. This evaluation shall be performed by a qualified geotechnical individual familiar with the design, construction and operation of the berms and dam, with a copy of the evaluation report submitted to NRC within one month of the completion of the evaluation. This technical evaluation shall be conducted annually; copies of these subsequent evaluation reports shall be retained onsite.
15. The licensee shall conduct an inspection program of the tailings disposal system in accordance with Regulatory Guide 3.11.1.
16. The wet foam and sprinkler fire suppression systems must be fully functional prior to the introduction of kerosene into the mill circuit and the resumption of mill operations.

REFERENCES

Plateau Resources Limited, 1997, "Shootaring Canyon Uranium Processing Facility, Decommissioning and Reclamation Plan," 1 vol. and 5 appendices, dated December 18, 1996, submitted by letter dated January 10, 1997.

Plateau Resources Limited, 1996 "Shootaring Canyon Processing Facility, Garfield County, Utah: Source Material License Renewal Application SUA-1371, DOCKET NO. 40-8698," 1 vol., March 1, 1996.

Bernreuter, D., et al., 1994, "Seismic Hazard Analysis of Title II Reclamation Plans," prepared under contract for the NRC by Lawrence Livermore National Laboratory, June 1994.

ICF Kaiser Engineers, 1992, "Environmental Liabilities at the Shootaring Canyon Uranium Mills," report extract as Appendix D, "Tailings Impoundment Study," to Plateau Resource Limited's March 1, 1996 amended license renewal application.

U.S. National Park Service [NPS], 1997a, "Glen Canyon National Recreation Area Visitor Use Summary - December 1996," summary table received via facsimile on March 20, 1997.

NPS, 1997b, personal communication between J. Park, NRC Project Manager, and C. O'Bergh, NPS Superintendent's office - Glen Canyon National Recreation Area, on March 20, 1997.

U.S. Nuclear Regulatory Commission [NRC], 1986a, "United States Nuclear Regulatory Commission Environmental Assessment Prepared by the Uranium Recovery Field Office in Consideration of the Renewal of Source Material License SUA-1371 for Plateau Resources Limited Shootaring Canyon Processing Facility," issued February 3, 1986.

NRC, 1986b, "Safety Evaluation Report for License Renewal SUA-1371, Docket No. 40-8698, Plateau Resources Limited Shootaring Canyon Processing Facility," issued February 3, 1986.

NRC, 1983, "Hydrologic Design Criteria For Tailings Retention System," NRC Staff Technical Position WM-8201, January 1983.

NRC, 1980a, "Operational Inspection and Surveillance of Embankment Retention Systems for Uranium Mill Tailings," NRC Regulatory Guide 3.11.1, October 1980.

NRC, 1980b, "Radiological Effluent and Environmental Monitoring at Uranium Mills," NRC Regulatory Guide 4.14, April 1980.

NRC, 1979a, "Final Environmental Statement: Related to Operation of Shootaring Canyon Uranium Project, Plateau Resources, Ltd.," NUREG-0583, Office of Nuclear Material Safety and Safeguards, July 1979.

NRC, 1979b, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment," NRC Regulatory Guide 4.15, February 1979.

NRC, 1977, "Design, Construction and Inspection of Embankment Retention Systems for Uranium Mills," NRC Regulatory Guide 3.11, December 1977.

Federal Register Notice:

Finding of No Significant Impact
Notice of Opportunity for Hearing
(62 FR 22977; April 28, 1997)

For the Nuclear Regulatory Commission
 Robert G. Schaaf,
 Project Manager, Project Directorate III-1,
 Division of Reactor Projects—III/IV, Office of
 Nuclear Reactor Regulation.
 [FR Doc. 97-10864 Filed 4-25-97; 8:45 am]
 BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

[Docket No. 40-8698]

Plateau Resources Limited

AGENCY: Nuclear Regulatory Commission.

ACTION: Final finding of no significant impact notice of opportunity for hearing.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) proposes to renew NRC Source Material License A-1371 to authorize the licensee, Plateau Resources Limited (PRL), to resume commercial milling operations at the Shootaring Canyon uranium mill, located near Tropic, Utah. An Environmental Assessment was performed by the NRC staff in accordance with the requirements of 10 CFR Part 51. The conclusion of the Environmental Assessment is a Finding of No Significant Impact (FONSI) for the proposed licensing action.

FOR FURTHER INFORMATION CONTACT: Mr. James R. Park, Uranium Recovery Branch, Mail Stop TWFN 7-19, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Telephone 301/415-6699.

SUPPLEMENTARY INFORMATION:

Background

Source Material License SUA-1371 was originally issued by NRC on September 21, 1979, pursuant to Title 10, Code of Federal Regulations (10 CFR), Part 40, "Domestic Licensing of Source Material." This license currently authorizes PRL to possess byproduct material in the form of uranium waste tailings and other byproduct wastes which were generated by its uranium recovery operations previously authorized under SUA-1371. Under the current license, PRL is not authorized to produce uranium concentrates. The tailings and wastes referred to above were generated during the three months in 1982 in which the mill was operated; the mill has been on standby status since that time. SUA-1371 was renewed for "possession only" status in 1986.

By amended license renewal application dated March 1, 1996, PRL

requested authorization to resume operations at the Shootaring Canyon mill.

Summary of the Environmental Assessment

The NRC staff performed an appraisal of the environmental impacts associated with the resumption of operations at the Shootaring Canyon mill, in accordance with 10 CFR Part 51, Licensing and Regulatory Policy Procedures for Environmental Protection. In conducting its appraisal, the NRC staff considered the following: (1) Information contained in previous environmental evaluations of the Shootaring Canyon project; (2) information contained in PRL's license renewal application; (3) information contained in PRL's license amendment requests submitted subsequent to its renewal application, and NRC staff approvals of such requests; (4) land use and environmental monitoring reports; and (5) information derived from NRC staff site visits and inspections of the Shootaring Canyon mill site and from communications with PRL, the State of Utah Department of Environmental Quality (DEQ), and the National Park Service. The results of the staff's appraisal are documented in an Environmental Assessment. The radiation safety aspects for the resumption of operations at the mill are discussed in a Safety Evaluation Report.

The license renewal would authorize PRL to resume operating the Shootaring Canyon mill, at a maximum production rate of 1,004,000 pounds of yellowcake per year, and to possess byproduct material in the form of uranium waste tailings and other uranium byproduct wastes generated by the milling operations authorized by the renewal license. The actual resumption of operations will be conditional on (1) The approval of a final design for the tailings impoundment liner by NRC and the Utah DEQ and the installation of that liner, (2) PRL's submittal of a technical evaluation of the existing cross-valley berm and tailings dam, and (3) NRC's confirmation during a pre-operational site inspection that standard operating procedures for operational and non-operational activities are in place.

All conditions in the renewal license and commitments presented in the licensee's license renewal application are subject to NRC inspection. Violation of the license may result in enforcement action.

Conclusions

The NRC staff has reexamined actual and potential environmental impacts

associated with a resumption of yellowcake production at the mill site, and has determined that renewal of the source material license (1) Will be consistent with requirements of 10 CFR Part 40, (2) will not be inimical to the public health and safety, and (3) will not have long-term detrimental impacts on the environment. The following statements support the FONSI and summarize the conclusions resulting from the staff's environmental assessment:

1. An acceptable environmental sampling program will be in place to monitor effluent releases and to detect if appropriate limits are exceeded;

2. The licensee will implement an intensive, routine inspection program of the mill process building, associated facilities, and tailings retention impoundments, and conduct an annual "as low as is reasonable achievable" (ALARA) audit program;

3. Standard operating procedures will be in place for all operational process activities involving radioactive materials that are handled, processed, or stored;

4. Mill tailings and process liquid effluents from the mill circuit will be discharged to a multi-lined tailings impoundment, with a leak detection system;

5. The licensee will implement an acceptable groundwater detection monitoring program to ensure compliance with the requirements of 10 CFR Part 40, Appendix A;

6. The licensee will conduct site decommissioning and reclamation activities in accordance with NRC-approved plans; and

7. Because the staff has determined that there will be no significant impacts associated with approval of the license renewal, there can be no disproportionately high and adverse effects on impacts on minority and low-income populations. Consequently, further evaluation of 'Environmental Justice' concerns, as outlined in Executive Order 12898 and NRC's Office of Nuclear Material Safety and Safeguards Policy and Procedures Letter 1-50, Rev.1, is not warranted.

Alternatives to the Proposed Action

The proposed action is to renew NRC Source Material License SUA-1371, for a resumption of operations at the Shootaring Canyon mill, as requested by PRL. Therefore, the principal alternatives available to NRC are to:

- (1) Renew the license with such conditions as are considered necessary or appropriate to protect public health and safety and the environment; or
- (2) Deny renewal of the license.

Based on its review, the NRC staff has concluded that there are no significant environmental impacts associated with the proposed action; therefore, any alternatives with equal or greater environmental impacts need not be evaluated. Since the environmental impacts of the proposed action and the no-action alternative (i.e., denial of the renewal) are similar, there is no need to further evaluate alternatives to the proposed action.

Finding of No Significant Impact

The NRC staff has prepared an Environmental Assessment for the proposed renewal of NRC Source Material License SUA-1371. On the basis of this assessment, the NRC staff has concluded that the environmental impacts that may result from the proposed action would not be significant, and therefore, preparation of an Environmental Impact Statement is not warranted.

The Environmental Assessment and other documents related to this proposed action are available for public inspection and copying at the NRC Public Document Room, in the Gelman Building, 2120 L Street NW., Washington, DC 20555.

Notice of Opportunity for Hearing

The Commission hereby provides notice that this is a proceeding on an application for a licensing action falling within the scope of Subpart L, "Informal Hearing Procedures for Adjudications in Materials and Operator Licensing Proceedings," of the Commission's Rules of Practice for Domestic Licensing Proceedings in 10 CFR Part 2 (54 FR 8269). Pursuant to § 2.1205(a), any person whose interest may be affected by this proceeding may file a request for a hearing. In accordance with § 2.1205(c), a request for a hearing must be filed within thirty (30) days from the date of publication of this **Federal Register** notice. The request for a hearing must be filed with the Office of the Secretary either:

(1) By delivery to the Docketing and Service Branch of the Office of the Secretary at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852; or

(2) By mail or telegram addressed to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch.

Each request for a hearing must also be served, by delivering it personally or by mail to:

(1) The applicant, Plateau Resources Limited, 877 North 8th West, Riverton, Wyoming 82501;

(2) The NRC staff, by delivery to the Executive Director of Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or by mail addressed to the Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

In addition to meeting other applicable requirements of 10 CFR Part 2 of the Commission's regulations, a request for a hearing filed by a person other than an applicant must describe in detail:

(1) The interest of the requestor in the proceeding;

(2) How that interest may be affected by the results of the proceeding, including the reasons why the requestor should be permitted a hearing, with particular reference to the factors set out in § 2.1205(g);

(3) the requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and

(4) The circumstances establishing that the request for a hearing is timely in accordance with § 2.1205(c). Any hearing that is requested and granted will be held in accordance with the Commission's "Informal Hearing Procedures for Adjudications in Materials and Operator Licensing Proceedings" in 10 CFR Part 2, Subpart L.

Dated at Rockville, Maryland, this 21st day of April 1997.

For the Nuclear Regulatory Commission.

Charles L. Cain,

Acting Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material, Safety and Safeguards.

[FR Doc. 97-10862 Filed 4-25-97; 8:45 am]

BILLING CODE 7590-01-P

OFFICE OF MANAGEMENT AND BUDGET

Options for Promoting Privacy on the National Information Infrastructure

AGENCY: Office of Management and Budget.

ACTION: Notice and request for comments.

SUMMARY: OMB announces the availability of "Options for Promoting Privacy on the National Information Infrastructure" (Options Paper) on behalf of the Information Policy Committee of the National Information Infrastructure Task Force (IITF). This Options Paper results from work performed by the Privacy Working Group and refined by the Committee. The Committee is chaired by the Administrator of the Office of Information and Regulatory Affairs,

Office of Management and Budget (OMB). This Options Paper builds upon the October 1995 report of the Privacy Working Group, "Privacy and the National Information Infrastructure: Principles for Providing and Using Personal Information" (Privacy Principles), which was published in draft form in the **Federal Register** on January 20, 1995 (60 FR 4362) and was finalized in June 1995. None of the options presented has been adopted as Administration policy; they are set forth in this document in the belief that they are worthy of public discussion.

DATES: Comments should be submitted no later than June 27, 1997.

ELECTRONIC AVAILABILITY AND ADDRESSES: The options paper is available electronically from the IITF site on the World Wide Web: <http://www.iitf.nist.gov/ipc/ipc-pub.html> and in paper form from the OMB Publications Office, 725 17th Street, NW., Washington, DC 20503, telephone: 202/395-7332, facsimile: 202/395-6137.

Comments may be sent to the Information Policy Committee c/o the Office of Information and Regulatory Affairs, Office of Management and Budget, Room 10236, Washington, DC 20503. Comments may also be submitted by facsimile to 202-395-5167, or by electronic mail to BERNSTEIN_M@A1.EOP.GOV. Comments submitted by facsimile or electronic mail need not also be submitted by regular mail.

FOR FURTHER INFORMATION CONTACT: Ms. Maya A. Bernstein, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503. Voice telephone: 202-395-4816. Facsimile: 202-395-5167. Electronic mail: BERNSTEIN_M@A1.EOP.GOV.

SUPPLEMENTARY INFORMATION: In the Report of the National Performance Review, "Creating a Government that Works Better & Costs Less: Reengineering Through Information Technology," the Vice President tasked the Information Infrastructure Task Force with considering privacy policy with respect to the National Information Infrastructure (NII). The Privacy Working Group first developed "Privacy and the National Information Infrastructure: Principles for Providing and Using Personal Information" (the Privacy Principles), which described a set of fair information practices appropriate to the NII and which were finalized in June 1995. The next step for the Privacy Working Group was to consider how best to promote those principles. To that end, the Working Group undertook significant research on