

40-8681-MLA-5



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

DOCKETED  
USNRC

December 10, 1998

'98 DEC 11 P2:00

OFFICE OF THE  
RULES AND  
ADJUDICATION

MEMORANDUM TO:

B. Paul Cotter, Jr.  
Chief Administrative Judge  
Atomic Safety and Licensing Board Panel

FROM

*John C. Hoyle*  
John C. Hoyle, Secretary

SUBJECT:

REQUESTS FOR HEARING SUBMITTED BY THE  
STATE OF UTAH, ENVIROCARE OF UTAH, THE  
NAVAJO UTAH COMMISSION, THE CONCERNED  
CITIZENS OF SAN JUAN COUNTY, UTAH  
AND KEN SLEIGHT

Attached are requests for hearing submitted by the State of Utah dated December 2, 1998, Envirocare of Utah dated December 3, 1998, the Navajo Utah Commission of the Navajo Nation Council of San Juan County, Utah dated November 21, 1998, the Concerned Citizens of San Juan County, Utah dated December 1, 1998 and Ken Sleight dated December 1, 1998. The five requests were submitted in response to a notice of receipt of an application of the International Uranium (USA) Corporation (IUSA) (Docket No. 40-8681) to amend its license. The notice was published in the Federal Register at 63 Fed. Reg. 59340 (November 3, 1998) (copy attached). The application of IUSA addressed by the notice was submitted to the NRC staff on October 15, 1998. It requested approval for IUSA to receive and process at its White Mesa Uranium Mill, uranium-bearing material located at the Ashland 1 and Seaway Area D Formerly Utilized Sites Remedial Action Program sites, near Tonawanda, New York.

SECY-EHD-008

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The requests for hearing are being referred to you for appropriate action in accordance with 10 C.F.R. §2.1261.

Attachments: As stated

cc: Commission Legal Assistants  
OGC  
CAA  
OPA  
EDO  
NMSS  
Fred G. Nelson, Esquire  
State of Utah  
David J. Jordan, Esquire  
Envirocare of Utah, Inc.  
Clarence Rockwell  
Navajo Utah Commission  
Gene Stevenson  
Concerned Citizens of San Juan County  
Ken Sleight  
Anthony J. Thompson, Esquire  
International Uranium (USA) Corporation

DOCKETED  
USNRC

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

'98 DEC -7 P5 :48

In the Matter of:	)		
	)		
INTERNATIONAL URANIUM	)	Docket No. 40-8681	OFFICE OF THE
(USA) CORPORATION	)		RULES
(source material license amendment,	)		ADJUDICATION
Ashland 1 material)	)	December 2, 1998	

**STATE OF UTAH'S REQUEST FOR  
A HEARING AND PETITION FOR LEAVE TO INTERVENE**

On November 3, 1998 the NRC published notice in the Federal Register of the receipt of a license amendment application from International Uranium (USA) Corporation (IUC) to amend Source Material License No. SUA-1358 to allow IUC to process alternate feed materials from the Ashland 1 and Seaway Area D cleanup site, located near Tonawanda, New York. 63 Fed Reg. 59,340. The Federal Register Notice also provided notice of the opportunity for a hearing. Id. In accordance with the foregoing Federal Register Notice, and pursuant to 10 CFR Part 2, Subpart L, the State of Utah hereby submits its Request for a Hearing and Petition for Leave to Intervene in the IUC Ashland 1 license amendment request.

**PROCEDURAL HISTORY**

Under cover of letter dated October 15, 1998, IUC submitted a request to NRC to amend Source Material License No. SUA-1358 to allow IUC to receive and process 25,000 to 30,000 cubic yards of material from the Ashland 1 and Seaway Area D Formerly Utilized Sites Remedial Action Program ("FUSRAP") site, near Tonawanda,

U.S. NUCLEAR REGULATORY COMMISSION  
REGULATORY JUDICATIONS STAFF  
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OF THE COMMISSION

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Ken Sleight, A. Thompson

New York (hereafter, unless otherwise noted, "Ashland 1 License Amendment Request"). IUC sent the State a copy of this license amendment request, which the State received on October 16, 1998.

The State, currently litigating NRC's grant of IUC's license amendment request to receive and process materials from the Ashland 2 FUSRAP site in another proceeding (ASLBP No. 98-748-02-MLA), filed on October 23, 1998, a "Motion to Hear Related License Amendment Request or in the Alternative Request for Hearing and Petition for Leave to Intervene" ("October 23 Motion").

The NRC published a Notice of Receipt of IUC's Ashland 1 License Amendment Request and Notice of Opportunity for hearing in the Federal Register on November 3, 1998. 63 Fed. Reg. 59,340.

On November 9, 1998, the NRC Staff and IUC responded to the State's October 23 Motion. On November 12, 1998, the State withdrew its October 23 Motion and advised the Presiding Officer that it would be submitting a request for a hearing in accordance with the November 3, 1998 Federal Register notice.

On information and belief, to date, the NRC has not approved IUC's Ashland 1 license amendment request.

## ARGUMENT

As discussed below, the State has standing in this matter because it will suffer injury-in-fact and it has raised concerns that are germane to the subject matter of IUC's

license amendment request.

## I. STANDING REQUIREMENTS

Section 189a(1) of the Atomic Energy Act (the "AEA"), 42 U.S.C § 2239(a), provides that "[i]n any proceeding under this Act, for . . . amending of any license . . . , the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding." In addition, the requestor must describe in detail (1) the requestor's interest in the proceedings; (2) how those interests may be affected by the results of the proceeding; (3) the requestor's areas of concern about the subject licensing action; and (4) the timeliness of the hearing request. 10 CFR § 2.1205(e).

In determining whether the Petitioner meets the judicial standard for standing, the Presiding Officer shall consider, among other factors:

- (1) The nature of the requestor's right under the [Atomic Energy] Act to be made a party to the proceeding;
- (2) The nature and extent of the requestor's property, financial, or other interest in the proceeding; and
- (3) The possible effect of any order that may be entered in the proceeding upon the requestor's interest.

10 CFR § 2.1205(h). In addition, the Presiding Officer shall determine the germaneness and timeliness of the petition. Id.

In determining whether a petitioner has met the above-referenced standards and is entitled to a hearing, the Commission looks to judicial concepts of standing and

requires: (1) a petitioner's injury to arguably fall within the zone of interests sought to be protected by the Atomic Energy Act; (2) the petitioner to allege injury-in-fact; (3) the injury to be fairly traceable to the challenged action; and (4) the injury to be redressable by the Commission. Atlas Corporation (Moab, Utah facility), LBP-97-9, 45 NRC 414, 416 (1997) (*referring to Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996)); Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992). Moreover, while the petitioner has the burden of establishing standing, the Presiding Officer is to "construe the petition in favor of the petitioner." Georgia Institute of Technology (Georgia Tech Research Reactor), CLI-95-12, 42 NRC 111, 115 (1995); Moab, Utah facility, 45 NRC at 416.

## II. THE STATE HAS A RIGHT TO BE MADE A PARTY TO THE PROCEEDING

The State's interests, as described below, may be affected by the IUC Ashland 1 and Seaway Area D license amendment and thus, under Section 189a of the Atomic Energy Act, 42 USC § 2339(a), the State may be admitted as a party to this proceeding. Under the doctrine of *parens patriae*, the State has a quasi-sovereign right to protect the interests of its citizens. In addition, the State has a sovereign interest in protecting and enforcing its regulatory programs. The State also has the right to protect its proprietary and sovereign interest in its lands, waters, wildlife and other natural resources. Finally, the State has the right to protect its interests as trustee for all the

surface and groundwater in the State, including groundwater resources under and in the vicinity of the White Mesa Mill.

The State has already met the standing requirements to intervene in NRC's grant of the IUC license amendment to receive and process alternate feed materials from the Ashland 2 Tonawanda site. *See* ASLBP No. 98-748-02-MLA. The Ashland 2 site is adjacent to the Ashland 1 site, the Corps is using the same contractor to remediate the Ashland 1 site as it did for the Ashland 2 site, and the handling, processing and disposal to be used at the White Mesa mill will be the same for both alternate feed materials. *See* IUC Ashland 1 License Amendment Request. Although a petitioner does not gain automatic standing simply because of standing in previous cases, the fact that the State has previously obtained standing in challenging alternate feed material at the White Mesa Mill should be persuasive that the State has standing in this case too. In addition, the State has also received standing to represent potential injuries to citizens, wildlife, environment and natural resources in another proceeding before the NRC. *See* In the Matter of Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142 (1998).

### **III. THE LICENSE AMENDMENT WILL CREATE INJURY-IN-FACT TO THE STATE'S INTERESTS.**

The NRC has yet to act upon IUC's license amendment request.

Consequently, the degree to which the State will suffer injury-in-fact is dependent, in

part, upon the NRC's final evaluation, determination, documentation and approval of IUC's license amendment request. The State discusses below the interests of the State that may be affected at this pre-decisional stage of the NRC's Staff review.

**A. Because the Ashland 1 and Seaway Area D Materials May Contain Hazardous Wastes, Excavation, Storage, Processing, and Disposal of the Materials Could Violate Hazardous Waste Laws and NRC Guidance and Injure the State.**

The Ashland 1 or Seaway Area D materials that IUC is requesting to process under the current license amendment request may contain listed hazardous waste or characteristic hazardous waste from water treatment residues. If this is the case, it would circumvent Utah's right to regulate hazardous waste. In addition, it would be in contravention of NRC's final guidance on alternate feed materials if NRC were to approve processing of Ashland 1 or Seaway Area D materials if they contain listed hazardous waste.

A Licensing Board decision stated: "If [an] intervenor can show that there is a law preventing particular material from being stored pursuant to the amendment, then there may also be a presumption of injury sufficient to establish standing." In the Matter of Energy Fuels Nuclear, Inc. (White Mesa Uranium Mill), LBP 97-10, 45 NRC 429, 431 (1997) (setting out standing requirements for petitioners challenging a license amendment at the White Mesa Mill). Thus, Utah's allegations that the Ashland 1 or Seaway Area 2 materials may contain hazardous waste is sufficient to demonstrate injury in fact to the State's regulatory interests.

The Ashland 1 and Seaway Area D FUSRAP sites, located near Tonawanda New York, are currently being remediated by the U.S. Army Corps of Engineers ("USACE") through its contractor ICF Kaiser. See 63 Fed Reg. 59,340 and IUC Ashland 1 License Amendment Request at 1. African and domestic ores were processed and uranium extracted between 1942 and 1946 at a facility in Linde, located at Tonawanda, New York, and approximately 8,000 tons of process residues were initially disposed of at the Ashland 1 site. USACE, Record of Decision for the Ashland 1 (including Seaway Area D) and Ashland 2 Sites, Tonawanda, New York (April 1998) at 9-10 (hereafter "Ashland 1 and Ashland 2 ROD") and IUC Ashland 1 License Amendment Request at 2. In 1974 Ashland Oil Company constructed a bermed area for two petroleum product storage tanks and a drainage ditch on the Ashland 1 property, and deposited the excavated residues from these construction activities on the Ashland 2 and Seaway sites. Ashland 1 and Ashland 2 ROD at 9. The Seaway site has been used as a industrial dump and landfill for the past 50 to 60 years. Id. at 10. Thus, the Ashland 1 property contains only a small fraction of the 8,000 tons of process residues from the Linde property that were deposited at Ashland 1 in 1940's. In fact, the uranium content of the Ashland 1 soils ranges from non-detectable to approximately 0.4 percent. IUC Ashland 1 License Amendment Request at 8.

IUC relies on remedial investigations done on behalf of the Corps, to make its claim that the Ashland 1 and Seaway Area D materials do not contain listed hazardous

waste. However, investigations done for the Corps do not focus on hazardous waste contamination. As the USACE stated in the ROD for the Ashland properties, radiological contamination caused by the Manhattan Engineering District's activities was the primary objective of the Corps' cleanup of the Ashland properties. Ashland 1 and Ashland 2 ROD at 10.<sup>1</sup> Therefore, as the primary objective of the remedial investigation was to determine the extent of radiological contamination, chemical sampling was much more limited than radiological sampling.<sup>2</sup> As a consequence, the number and spacing of chemical sample locations may not be adequate to provide a representative characterization for the presence of hazardous waste at the Ashland 1 site.

Even with the limited sampling for nonradiological constituents, several

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<sup>1</sup> The ROD at 10, states:

The investigations and observations also show the presence of wastes on these properties [Ashland 1, Ashland 2 and Seaway] that are not MED-related, including wastes and oils from refinery operations, industrial dumping and landfilling. These properties have not been characterized for the presence of hazardous substances in other areas which are the responsibility of other parties. The plan proposed for remediation of the Ashland sites addresses cleanup of the radioactive hazardous substances present on these properties as a result of MED-related activities at Ashland 1 as well as non-radiological hazardous substances that may be comingled with radiologically contaminated material.

<sup>2</sup> Chemical sampling was limited to only 12 drill boring locations followed up with 7 hand auger locations in contrast to 58 drill boring locations and 30 hand auger locations for radiological sampling. Remedial Investigation Report for the Tonawanda Site, USDOE, February, 1993 at Figs. 2-7, 2-8 and 2-9.

contaminants listed in high concentrations may potentially be associated with listed hazardous waste or characteristic hazardous waste from water treatment residues. These include, but are not limited to tetrachloroethylene (1,700 ppb), methylene chloride (8,000 ppb), total chromium (variously reported at 816 ppm, 116 ppm and 102 ppm), total lead (variously reported at 7,500 ppm, 2,900 ppm and 1,050 ppm). Ashland 1 License Amendment Request at Attachment 4; Remedial Investigation Report for the Tonawanda Site, USDOE, February, 1993 at Tables 4-26 to 4-30.

Another indication that hazardous waste may be present in the materials being requested to be processed by IUC involves Seaway Area D, a site used as a landfill and garbage dump since the 1930's. IUC makes the claim that Seaway Area D contains no listed hazardous waste, citing as support, Table 1-10 of the Remedial Investigation Report. IUC Ashland 1 License Amendment Request at 2 and Attachment 4 thereto at 4. There are a number of constituents on Table 1-10 that, without further investigation, may constitute listed hazardous waste or characteristic hazardous waste from water treatment residues. Examples of entries on Table 1-10 that indicate that hazardous waste may have been disposed of at Seaway over the past 50 years include spent cleaning solvents, waste oils, incinerator ash, carbonates, pit sludges, toluene, catalysts, chloroethene and pretreatment sludge containing organics and metals.

The State of Utah has been delegated the Resource Conservation and Recovery Act ("RCRA") program by the U.S. Environmental Protection Agency and, as such,

Utah regulates the transportation, storage and disposal of hazardous waste in the State. Thus, if the NRC approves the IUC Ashland 1 license amendment, it would be in contravention of RCRA and the State would presumptively suffer injury-in fact.

RCRA regulates many of the activities that would occur if NRC approves the IUC's Ashland 1 and Seaway Area D license amendment request. Transportation, storage and disposal of hazardous waste is subject to 40 CFR Parts 263 (transportation) and 264 (storage and disposal). Thus, if the U.S. Army Corps' contractor, ICF Kaiser, excavates hazardous waste at the site,<sup>3</sup> and transports it to White Mesa without the proper RCRA handling, labeling, and manifesting, the waste shipments will be in violation of RCRA. 40 CFR Part 263. Furthermore, RCRA imposes storage requirements when the waste arrives at White Mesa. 40 CFR Part 264. Moreover, RCRA has laws in place dealing with the recycling of product containing hazardous waste, and RCRA may also impose storage requirements prior to reclamation. 40 CFR Parts 261 and 264. Finally, RCRA hazardous waste may only be disposed of in a licensed RCRA disposal facility, which includes the waste meeting the land disposal restrictions for the concentrations of hazardous waste. 40 CFR Parts 264 (disposal) and 268 (land disposal restrictions). If hazardous waste is mixed with radioactive waste, the waste is also regulated under RCRA. 40 CFR Part 261 (identification and listing of hazardous waste). The White Mesa Mill does not have a permit from the

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<sup>3</sup> See 40 CFR § 261.3(a)(2)(iv) (mixture rule).

State of Utah to store RCRA hazardous waste and is not a RCRA-permitted hazardous waste disposal facility. Thus, if approved for receipt and processing at White Mesa, the Ashland 1 and Seaway Area D waste may violate RCRA's handling, manifesting and storage laws, as enforced by the State of Utah. Furthermore, processing the Ashland 1 and Seaway Area D materials and disposing of the process waste may also be in violation of RCRA. As the regulator of hazardous waste, the State will suffer injury in fact to its regulatory authority. In these circumstances, there should be a presumption of injury sufficient to establish the State's standing.

In order to demonstrate standing, the State does not have to prove the merits of its case (*i.e.*, that hazardous waste is present in the Ashland 1 or Seaway Area D materials). As stated by the United States Supreme Court: "standing in no way depends on the merits of the plaintiff's contention that particular conduct is illegal." Warth v. Seldin, 422 U.S.490, 500 (1975). In fact, "trial and reviewing courts must accept as true all material allegations of the [petition]." Id. at 501. *See also In the Matter of Georgia Institute of Technology*, (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 286 (1995). The State has made a sufficient demonstration by citing with specificity to the IUC Ashland license amendment request the potential for hazardous waste to be present in the requested material for processing at the White Mesa Mill.

If the Ashland 1 or Seaway Area D waste contain listed hazardous waste, it

would also be in violation of NRC guidance on alternate feed materials. The guidance states:

If the proposed feed material contains hazardous waste, listed under Subpart D §§ 261.30-33 of 40 CFR (or comparable RCRA authorized State regulations), it would be subject to EPA (or State) regulation under RCRA. To avoid the complexities of NRC/EPA dual regulation, such feed material will not be approved for processing at a licensed mill.

Final Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores, (Alternate Feed Guidance) 60 Fed. Reg. 49,296 - 97 (1995).

Furthermore, the Guidance does not allow NRC to approve characteristic waste from wastewater treatment residues as alternate feed material. Id. Thus, if the Ashland 1 or Seaway Area D materials contain listed or certain characteristic hazardous waste, the Staff's Alternate Feed Guidance prohibits such processing. As such, there should also be a presumption of injury-in-fact to the State because of the violation of the foregoing prohibition.

- B. Because the Ashland 1 and Seaway Area D Material May Have a Different Composition than Materials Currently Received, Processed, and Disposed of at the White Mesa Mill, the State of Utah Will Suffer Injury-in-Fact from IUC's License Amendment.**

The Ashland 1 and Seaway Area D material is an alternate feed material from a remediation site, potentially including hazardous wastes, that has a significantly different composition than traditional ores mined and milled at IUC's facility. As such the Ashland 1 and Seaway Area D material may not qualify as "ore." Furthermore, if the licensee were authorized to process and dispose of the Ashland 1 and Seaway Area

D material, it would substantially diminish the State's ability to ensure protection of its environment, natural resources, and citizens. The State further alleges that its interests in protecting the integrity of its wildlife and natural resources, including ground and surface water, from contamination caused as a result of any releases from IUC's tailings are threatened. In addition, the State alleges that if the primary purpose of obtaining the Ashland 1 and Seaway Area D material is for disposal rather than reprocessing, then the White Mesa facility is unsuitable because such disposal would circumvent the disposal requirements of 10 CFR Part 61.

**1. NRC Alternate Feed Guidance**

Prior to approving IUC's license amendment request, the NRC must satisfy itself that the Ashland 1 and Seaway Area D material meets all three steps of NRC's Alternative Feed Guidance: (1) that the feed material is an "ore"; (2) that the feed material does not contain hazardous waste; and (3) that the ore is being processed primarily for its source-material content. 60 Fed. Reg. 49,396-97.

As discussed in the previous section, the State alleges that the Ashland 1 and Seaway Area D material may contain listed hazardous waste or characteristic hazardous waste from water treatment residues. The State also alleges that the Ashland 1 and Seaway Area D material does not meet the definition of "ore" and is not being processed primarily for its source material content. Under NRC's Alternate Feed Guidance, for waste to qualify as "ore," it must meet the following definition:

Ore is a natural or native matter that may be mined and treated for the extraction of any of its constituents or any other matter from which source material is extracted in a licensed uranium or thorium mill.

60 Fed. Reg. 49,296.

In this case, soils at Ashland 1 and Seaway Area D contain non-detectable amounts of uranium to a high concentration of 0.4%, with an average uranium content of 0.02%. Remedial Investigation Report for the Tonawanda Site, USDOE, February, 1993 at Table 4-24.<sup>4</sup> A substantial portion of the 8,000 tons of uranium process waste from the Linde facility operations in the 1940's, initially disposed of at the Ashland 1 site, has been dug up and removed from Ashland 1. Moreover, what remains of the 8,000 tons of waste has been spread out over the Ashland 1 site and commingled with other contaminants not found in traditional ores. See discussion in Section A above. Unless NRC intends to allow ANY material to be processed at a uranium mill, there comes a time when NRC must question the integrity of its definition of ore. Surely NRC would not buy off on the definition of ore if, for example, the White Mesa Mill collected municipal garbage from San Juan County residents, and, for a suitable recycling fee, processed the garbage through its mill and disposed of the "tailings" in its impoundment. Nor should NRC accept as "ore" soils dug up from a Superfund

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<sup>4</sup> Table 4-24 of the RI Report, *Summary of Radionuclide Concentrations in Contaminated Soil at Ashland 1*, lists uranium-238 concentrations ranging from 1 to 1,500 pCi/g with an average of 66.7 pCi/g. The average of 0.02% uranium content is derived by dividing 66.7 pCi/g by 333339.5 (the conversion factor from specific activity to mass, based on the half life atomic weight of uranium-238) times 100.

cleanup site that contain almost no uranium. The time is ripe for NRC to take a hard look at the application of "ore" as applied to the Ashland 1 and Seaway Area D material.

It is obvious that IUC is primarily interested in the disposal fee and not processing the material primarily for its source material content. If approved, IUC would receive \$110.00 per cubic yard, plus payment of transportation costs to its mill site, for a total expenditure to the Corps of approximately \$2.5 million for 21,750 cubic yards of material. *See* Attachment 3 to IUC's Ashland 1 License Amendment Request, USACE, Value Engineering Proposal for Ashland 1 and Ashland 2, at 3-4. The value of any uranium extracted from the Ashland 1 and Seaway Area D materials, after taking into account processing costs, would be minuscule by comparison.

The Ashland 1 and Seaway Area D materials, if processed at White Mesa, would not be considered 11(e)2 tailings because they would probably fail to meet all three criteria of NRC's Alternate Feed Guidance. Thus, the tailings may be considered hazardous waste, mixed waste or low level radioactive waste. Therefore, the State would suffer injury to its regulatory programs, including its siting criteria for hazardous waste and low level radioactive waste facilities. *See* Utah Code Ann. §§ 19-6-108 and 19-3-105 and implementing administrative rules.

## **2. The State's Environmental Interests**

The Ashland 1 and Seaway Area D material represents a substantial threat to

Utah's interests, including the State's natural resources and protection of the environment, based upon the construction of the White Mesa tailings impoundment and the current regulation and monitoring at IUC's mill. In the Matter of Energy Fuels Nuclear, Inc. (White Mesa Uranium Mill), LBP-97-10, 45 NRC 429, 431 (1997), sets out how a "petitioner [can] show a plausible way in which activities licensed by [a] challenged amendment would injure them." The Presiding Officer stated, "If a petitioner alleges a way in which it fears that [a] particular material would fail to be properly confined and would escape into the groundwater, then a requirement for standing would appear to be met." Here, the State alleges that the Ashland 1 and Seaway Area D material has a different composition than traditional ores mined and milled at the White Mesa Mill. Moreover, the State alleges that the Ashland 1 and Seaway Area D material may have been commingled with hazardous wastes and other constituents bereft of any resemblance to traditional ores. As such, storage, processing, and disposal of the material could lead to new waste streams that could contaminate the "waters of the state."<sup>5</sup>

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- <sup>5</sup> As defined in Utah Code Ann. § 19-5-102(18), "waters of the state"
- (a) means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of the state; and
  - (b) does not include bodies of water confined to and retained within the limits of private property, and which do not develop into or constitute a nuisance, a public health hazard, or a menace to fish

Unlike NRC regulation, the definition of groundwater under State law is not contingent upon the yield of the aquifer. *Cf* "Waters of the state" as defined in Utah Code Ann § 19-5-102(18) with "aquifer" as defined in 10 CFR Part 40, Appendix A. Thus, for purposes of standing, if the leachate from the White Mesa tailings impoundment has the potential to reach the perched aquifer under the impoundment -- regardless of the aquifer's yield -- the State would suffer injury-in-fact. And there is ample reason to believe that such an injury will occur.

The State will suffer injury from the Ashland 1 and Seaway Area D materials disposed of at White Mesa because the White Mesa tailings cells have the potential to discharge to groundwater. As more particularly described in an Affidavit of Loren Morton supporting the State of Utah's Ashland 2 Amended Intervention Petition, a copy of which is attached hereto as Exhibit 1, there are several bases for concern about the potential for the White Mesa tailings impoundment discharging to groundwater. First, in a hydrogeologic evaluation of the White Mesa Mill, prepared in 1994, infiltration modeling results for the White Mesa impoundment predict an annual seepage discharge rate of between 0.45 to 5.95 inches per year for closed cell conditions. Morton Affidavit at ¶ 8. Second, the 1994 hydrogeologic evaluation incorrectly assumed that White Mesa has closed cells. However, the open cell conditions at White Mesa create a higher potential annual seepage discharge rate than predicted for closed

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or wildlife.

cell conditions. Morton Affidavit at ¶ 9. Third, because the 1994 hydrogeologic evaluation used unrepresentative infiltration modeling assumptions, it artificially lowered the rate of seepage discharge for the White Mesa tailings disposal cells. Morton Affidavit at ¶ 10. Fourth, based on U.S. Environmental Protection Agency infiltration simulations, there may be as much as 89 gallons per acre per day of undetected seepage discharge from tailings impoundments similar to those at White Mesa. Morton Affidavit at ¶ 11. Finally, there is potential for seepage discharge at White Mesa due to obsolete technology. Morton Affidavit at ¶ 12. In sum, the State has demonstrated plausible mechanisms by which the Ashland 1 and Seaway Area D materials may contaminate the groundwater under the White Mesa mill. Accordingly, Utah, as trustee of groundwater, has established "injury in fact" to its interest.

In addition to the plausible injury discussed above, at this pre-decisional stage of the NRC Staff's license amendment review, it is unknown what conditions, if any, the NRC will place on approval of IUC's request. In the case, In the Matter of Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 274 (1998), the Presiding Officer admitted several parties to a Subpart L source material license proceeding because "[s]ome of the license conditions imposed by the Staff indicate information the Staff must still be provided before the requested license activities may be authorized." Likewise, there is reasonable doubt about the source and content of the Ashland 1 and Seaway Area D materials to establish injury

in fact to the State's interests.

#### IV. THE STATE'S AREAS OF CONCERN ABOUT THE SUBJECT MATTER OF IUC'S LICENSE AMENDMENT.

Pursuant to 10 CFR § 2.1205 and the November 3, 1998 Federal Register Notice, the State describes its "areas of concern about the licensing activity that is the subject matter of the proceeding." 63 Fed. Reg. 59,340.

In discussing and applying the standing requirements above, the State has described the following concerns about whether the Ashland 1 and Seaway Area D material: (1) may contain listed or characteristic hazardous waste; (2) may violate all three criteria of NRC's Alternate Feed Guidance; (3) may have the potential for leakage at the White Mesa tailings impoundment, and (4) could violate Utah laws, including its siting criteria. These are the concerns the State wishes to raise in this proceeding. As stated in Babcock and Wilcox Co. (Pennsylvania Nuclear Services Operations, Parks Township, Pennsylvania), LBP-94-12, 39 NRC 215, 217 (1994), "[a]t this stage of the proceeding requestors need only identify the areas of concerns they wish to raise. They need only provide minimal information to ensure that the areas of concern are germane to the proceeding." Id. Moreover,

under the formal procedures of Subpart G, an intervention petitioner must explain the basis for any contention it seeks to litigate and demonstrate that a genuine dispute exists with the applicant on a material issue. 10 CFR § 2.714(b)(2). In this informal Subpart L proceeding, however, there is no such requirement. The test is simple -

persons or organizations with standing to intervene need only identify their "areas of concern germane to the proceeding" to have those areas addressed in a hearing.

Id. Furthermore, as the Presiding Officer recently recognized in Hydro Resources, "[i]t is not necessary to determine the merits of a concern in order to determine that it is germane." 47 NRC at 280. The State has made more than the minimal required showing of the areas of concern that are germane to the subject matter of this proceeding.

### CONCLUSION

For the reasons stated above, the State has demonstrated that it has standing to intervene in the proceeding because it has shown injury-in-fact to its interests, has raised issues that are germane to the IUC license amendment, and has timely submitted this Petition in accordance with the November 3, 1998 Federal Register notice.

DATED this 2<sup>nd</sup> day of December, 1998

Respectfully submitted,



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CERTIFICATE OF SERVICE

'98 DEC -7 P5 :48

I hereby certify that copies of the STATE OF UTAH'S REQUEST FOR A HEARING AND PETITION FOR LEAVE TO INTERVENE were served on the persons listed below by first class mail, and by e-mail where noted, and NOTICES OF APPEARANCE for DENISE CHANCELLOR and FRED G NELSON were served on the persons listed below by first class mail, on December 2, 1998:

Attn: Rulemakings and Adjudications  
Staff  
Secretary of the Commission  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555  
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*(original and two copies)*

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Denise Chancellor  
Assistant Attorney General, State of Utah

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Before Administrative Judges: Peter B. Bloch, Presiding Officer  
Richard F. Cole, Special Assistant

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In the Matter of: )  
 )  
INTERNATIONAL URANIUM ) Docket No. 40-8681-MLA-4  
(USA) CORPORATION )  
(source material license amendment) ) August 18, 1998

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STATE OF UTAH )  
 ) ss.  
COUNTY OF SALT LAKE )

AFFIDAVIT OF LOREN MORTON

I, LOREN MORTON, being first duly sworn upon oath, depose and state as follows:

1. I am the Senior Hydrogeologist for the Division of Radiation Control, Utah Department of Environmental Quality, and have held this position since 1994.
2. My duties include oversight of groundwater hydrology matters at low-level radioactive waste, uranium mill tailings disposal operations, and other

radioactive waste disposal facilities. I also review engineering plans and specifications for licensees and permittees of radioactive waste disposal operations to determine compliance with State groundwater protection criteria and rules. I perform infiltration, groundwater flow and contaminant transport modeling to evaluate the long-term performance of engineering designs proposed for radioactive waste disposal facilities. I also conduct compliance inspections for groundwater protection at radioactive waste disposal operations. I review and evaluate groundwater quality and related compliance monitoring data from radioactive waste disposal facilities to determine compliance with State groundwater protection requirements. Additionally, I review literature on groundwater flow and contaminant transport, participate in ongoing groundwater hydrology training, review design and construction of liner systems, as well as evaluate episodes of leakage from lined impoundments.

3. I began working as an environmental scientist (hydrogeologist) in 1984 for the Utah Division of Water Quality, where, on behalf of the State, I regulated mine waste and wastewater disposal, including uranium mining projects; underground injection operations including solution mining; municipal, commercial, and industrial wastewater disposal projects; and low-level radioactive waste.

4. I earned a B. S. and an M. S. in geology from Brigham Young University in 1981 and 1984 respectively.

5. I am familiar with the International Uranium (USA) Corporation ("IUSA") White Mesa Mill and its disposal impoundments. In preparation of this Affidavit, I reviewed the following documents:

(a) Brown, K.W., J.C. Thomas, R.L. Lytton, P. Jayawickrama, and S.C. Bahrt, August, 1987, "Quantification of Leak Rates Through Holes in Landfill Liners," Texas A&M University, prepared for U.S. EPA Hazardous Waste Engineering Research Laboratory, EPA/600/2-87/062, 56 pp. with five appendices.

(b) GeoServices Incorporated, April, 1987, "Background Document on Bottom-Liner Performance in Double-Lined Landfills and Surface Impoundments," prepared for U.S. EPA Office of Solid Waste, EPA/530-SW-87-013, 198 pp. with 3 appendices.

(c) Titan Environmental, July, 1994, "Hydrogeologic Evaluation of White Mesa Uranium Mill, Prepared for Energy Fuels Nuclear, Inc. One Tabor Center, Suite 2500 1200 Seventeenth Street Denver Colorado," unpublished consultants report, 49 pp. with references and seven appendices.

6. Based on my experience, training, expertise, familiarity with the White Mesa IUSA facility, as well as my review of the professional literature referred to in ¶ 5, my professional opinion that there is potential for the White Mesa tailings

cells to discharge to the waters of the state (*i.e.* groundwater) is described in the following paragraphs.

7. The uppermost or perched aquifer found beneath the IUSA tailings pile at the White Mesa facility is not hydraulically isolated from the land surface, and thus has the potential of receiving tailings contaminants via seepage discharge from the IUSA tailings facility. This same perched aquifer discharges to the land surface in the form of nearby springs and seeps. Titan Environmental, p. 21. Groundwater found both in this perched aquifer and deeper aquifers beneath the tailing facility, as well as nearby surface waters that could also be potentially impacted, all constitute "waters of the state." A facility that discharges a pollutant into the waters of the state, or places any waste in a location where there is probable cause to believe it will cause said pollution, is subject to the Utah Water Quality Act and State regulations promulgated thereunder. See Utah Code Ann § 19-5-107.

8. An infiltration modeling report provided to the State by IUSA's predecessor Energy Fuels Nuclear indicates that the completed or closed tailings disposal cells at the White Mesa mill will discharge tailings seepage to the environment (Titan Environmental, Appendix C, Table 4 and related HELP model test case results). In this report, IUSA completed six different test case simulations of infiltration through tailings disposal Cells 3 and 4 at the White Mesa facility. Four of these six test cases predicted an annual seepage discharge rate of between 0.45 to 5.95 inches per year.

While the two remaining test cases predicted no discharge from Cell 4, these predictions were found invalid after discovery that they did not achieve steady-state infiltration conditions, and hence do not represent long-term performance of Cell 4. I conclude, that given sufficient time once a seepage effluent is released from the tailings cells, such discharge has the potential to adversely impact water quality both in the perched aquifer and any connected surface waters.

9. The IUSA infiltration analysis described in the July, 1994 Titan Environmental report assumed that the tailings in Cells 3 and 4 had been closed and covered with a multi-layered system of earthen materials. *Id.* Appendix C, Figure 2, and related HELP model test case results. In these simulations the infiltration model assumed the only water applied to the tailings piles was precipitation, and that there was no static water head within the piles. In contrast, the operation of IUSA's tailings disposal cells demands that there be a standing head of water in each disposal cell. As a result of this driving head, I conclude that the annual seepage discharge rate from the active or open disposal cell will be higher than that predicted for the closed disposal cell condition.

10. The IUSA infiltration analysis assumed tailings facilities were underlain by a flexible membrane/clay composite liner system, i.e., a flexible membrane liner (FML) underlain by and in intimate contact with a lower clay soil liner. July, 1994 Titan Environmental, Appendix C, HELP model test case results,

Layer 7. However, engineering design descriptions provided elsewhere in the infiltration modeling report indicate that there is no intimate contact between the FML and the underlying clay liner. Instead a geotextile fabric, filter fabric, or a six inch layer of crushed rock and sand has been constructed between these two layers. Id., pp. 36 - 38, and Figures 3.1 and 3.2. Thus the use of a composite liner assumption in the July, 1994 infiltration analysis is unrepresentative and unwarranted. Based on my previous experience with the HELP model, I conclude this IUSA bias will artificially lower the rate of seepage discharge predicted by the IUSA HELP model test cases for the White Mesa tailings disposal cells.

11. The United States Environmental Protection Agency (EPA) has completed infiltration simulations of several engineering containment designs for landfills and surface impoundments, including one similar to that built at the White Mesa facility, where a FML is underlain by a granular media, and thereunder by a compacted soil liner. GeoServices Inc., pp. 2-15 and 5-1 through 5-12. These computer simulations show that a containment design similar to the one at the White Mesa facility can result in an undetected seepage discharge to the environment of as much 89 gallons per acre per day. Id., pp. 5-3 and 5-4. My review of the IUSA impoundment design shows the leak detection system under the tailings cells consists, for the most part, of such a design. Titan Environmental, Figures 3.1 and 3.2. Consequently, it

appears to me that there is a significant potential for undetected seepage discharge from the IUSA tailings cells to groundwater, and thus, to "waters of the state."

12. The IUSA tailings cells in question were constructed prior to 1980. Titan Environmental, p. 1. More recent EPA research has found that FML leaks detected in waste impoundments constructed during this era were many times caused by flawed seams; rips, punctures, and tears that occur during installation of the FML; failures that result from subsidence or shear failure of the soil after installation; inadequate quality control of installation; inadequate training of installation crews; local deformation of the FML due to poor liner subbase preparation; and physical, chemical and biological weathering of the FML material. Brown, et.al., pp. 1-2.

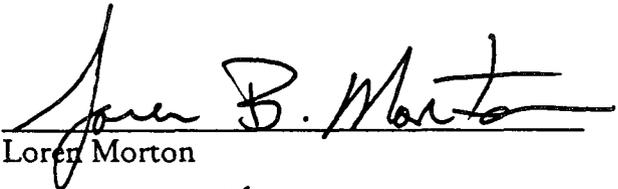
(a) My review of available information indicates that at least part of the IUSA tailings facility has been constructed with the FML liner immediately underlain by a layer of crushed rock and sand. Titan Environmental, p. 38, Figure 3.2. No information has been provided to the State on construction specifications, techniques, or quality assurance/quality control measures used; thus, the potential exists for angular material in this bedding to have punctured the FML.

(b) Significant improvements have been made both in waste impoundment engineering design, and FML materials, construction, and quality assurance/quality control testing since construction of the IUSA tailings facility. As a result, I conclude the potential for seepage discharge from the existing IUSA tailings

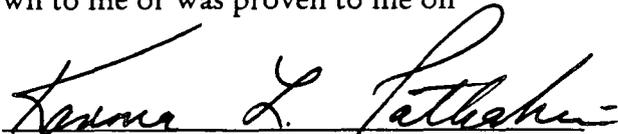
facility is greater than if the facility were to be constructed today with contemporary materials and engineering design practices.

FURTHER AFFIANT SAYETH NOT.

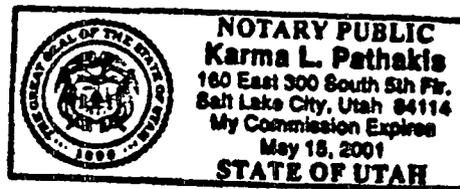
DATED this August 18, 1998.

  
Loren Morton

Voluntarily signed and sworn to before me this 18<sup>th</sup> day of August, 1998, by the signer, whose identity is personally known to me or was proven to me on satisfactory evidence.

  
NOTARY PUBLIC

Residing at: SLC Utah  
My Commission expires: 5/15/01





DATED at Salt Lake City, Utah this 2<sup>nd</sup> day of December, 1998.

Respectfully submitted,  
JAN GRAHAM  
Attorney General

A handwritten signature in cursive script, appearing to read "Denise Chancellor", written over a horizontal line.

Denise Chancellor  
Assistant Attorney General

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
11/17/98

'98 DEC -7 P5:48

In the Matter of: )

INTERNATIONAL URANIUM )  
(USA) CORPORATION )  
(source material license amendment, )  
Ashland 1 material )

Docket No. 40-8681

December 2, 1998

OFFICE OF THE  
ATTORNEY GENERAL  
ADJUTANT GENERAL

NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney enters an appearance in the above-captioned matter. Pursuant to Utah Code Ann. § 67-5-1(1) and (2), the Attorney General is the legal advisor to the State of Utah, petitioner. In accordance with 10 C.F.R. § 2.713(b), the following information is provided:

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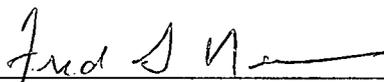
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Admissions: United States Supreme Court  
United States Court of Appeals for the 9th Circuit  
United States Court of Appeals for the 10th Circuit  
United States District Court for the District of Utah  
Utah State Courts

Name of Party: State of Utah

DATED at Salt Lake City, Utah this 2<sup>nd</sup> day of December, 1998.

Respectfully submitted,  
JAN GRAHAM  
Attorney General

  
\_\_\_\_\_  
Fred G Nelson  
Assistant Attorney General

DOCKETED  
USNRC

'98 DEC -7 P5:45

OFFICE OF THE SECRETARY  
RULEMAKING AND  
ADJUDICATION STAFF

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Attorneys for Envirocare of Utah, Inc.

BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF )  
INTERNATIONAL URANIUM (USA) )  
CORPORATION'S AMENDMENT TO )  
NRC SOURCE MATERIAL LICENSE )  
SUA-1358 )  
(Federal Register Notice: November 3, )  
1998, Volume 63, Number 212) )  
\_\_\_\_\_ )

DOCKET NO. 40-8681

REQUEST FOR HEARING OF  
ENVIROCARE OF UTAH, INC.

I. INTRODUCTION

1.1 This is a request by Envirocare of Utah, Inc. ("Envirocare") to the United States Nuclear Regulatory Commission ("NRC") pursuant to 10 C.F.R. § 2.1205, for a hearing on International Uranium (USA) Corporation's ("IUSA") application to amend its Source Material License SUA-1358 to allow for the receipt and "processing" of uranium-bearing material from the Ashland 1 and Seaway Area D Formerly Utilized Sites Remedial Action Program ("FUSRAP") sites near Tonawanda, New York ("the Ashland 1 material").

1.2 In filing this request, Envirocare recognizes the NRC's recent decisions in *Quivira Mining Company* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48

NRC 1 (1998) and *International Uranium (USA) Corporation* (Receipt of Material from Tonawanda, New York), CLI-98-23 (Nov. 24, 1998) wherein the NRC affirmed the dismissal of Envirocare's requests for hearings in those matters for lack of standing. Envirocare respectfully disagrees with the NRC's decisions and has appealed the *Quivira* decision and intends to appeal the *IUSA* decision to the federal court. While its appeals are pending, Envirocare hereby files this request, in good faith, to preserve its right to participate as a party in a hearing on IUSA's latest license amendment application.

1.3 Envirocare challenges IUSA's license amendment application because IUSA's application fails to satisfy: (1) the requirements of the NRC's "Final Revised Guidance on Disposal of Non-Atomic Energy Act of 1954 Section 11e.(2) Byproduct Material in Tailing Impoundments," (September, 1995); (2) the requirements set forth in 10 C.F.R. part 40; and (3) the standards established by the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4232, the NRC's regulations for the implementation of NEPA, 10 C.F.R. part 51, and the NRC's prior application of NEPA to similarly situated licensees.

## II. PETITIONER

2.1 This is a request by Envirocare to the NRC.

2.2 Envirocare is a Utah corporation that is in the business of operating a facility in Clive, Utah, for the disposal of radioactive waste.

2.3 Envirocare is licensed by the NRC to receive and dispose of uranium and thorium byproduct material (as defined in section 11e.(2) of the Atomic Energy Act ("AEA"), as amended).

### III. ACTION REQUESTED

3.1 Envirocare requests that the NRC hold a hearing, pursuant to 10 C.F.R. part 2 subpart L, on IUSA's request for an amendment to Source Material License SUA-1358 to allow it to receive, process and dispose of 11e.(2) byproduct material at its White Mesa site.

3.2 Envirocare requests that the NRC comply with its "Final Position and Guidance on the Use of Uranium Mill Feed Material Other than Natural Ores," 60 Fed. Reg. 49297 (the "Guidance"), and prepare a staff analysis of the matters raised by the Guidance. Envirocare requests that if the NRC determines that IUSA has failed to comply with its Guidance, the NRC deny IUSA's license amendment.

3.3 Envirocare requests that the NRC require IUSA to comply with NRC requirements and demonstrate that the Ashland 1 material will be processed primarily for its source material content, and that the NRC deny the amendment if IUSA cannot make such a showing.

3.4 Envirocare requests that the NRC require IUSA to demonstrate that the proposed amendment meets the standards set forth in 10 C.F.R. part 40 (including appendix A), and that the NRC deny the amendment if IUSA cannot make such a showing.

3.5 Finally, Envirocare requests that the NRC (1) require the preparation of an Environmental Impact Statement ("EIS") for IUSA's license before considering IUSA's request, and (2) fully evaluate any releases that have occurred from any tailings impoundment.

#### IV. STATEMENT OF FACTS

4.1 Envirocare was the first private facility in the United States to be licensed by the NRC to accept 11e.(2) material<sup>1</sup> from outside generators for disposal. In licensing Envirocare, the NRC set forth the requirements that an 11e.(2) disposal facility must comply with for licensure. Specifically, the NRC requires:

Compliance with the regulations set forth in 10 C.F.R. part 40, including appendix A. These include stringent site and design criteria, groundwater protection standards, radon barrier requirements, detection monitoring requirements, and inspection requirements.

Preparation by NRC staff of an Environmental Impact Statement ("EIS"), pursuant to 10 C.F.R. part 51, based upon an Environmental Report prepared by the applicant (relating to environmental protection from the harmful effects of land disposal of radioactive waste).

Compliance with administrative and record keeping requirements delineated in 10 C.F.R. §§ 61.80 and 61.82.

Compliance with the waste manifest requirements in 10 C.F.R. § 20.311.

Compliance with the worker safety and other requirements delineated in 10 C.F.R. parts 19, 20, and 21.

See 59 Fed. Reg. 2959 (Jan. 25, 1991); 58 Fed. Reg. 62690 (Nov. 29, 1993); Byproduct Material License No. SMC-1559. Copies of these documents are attached as Exhibit A.

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<sup>1</sup> The 11e.(2) material Envirocare is authorized to accept for disposal includes byproduct materials, which consist of tailings or wastes produced by the extraction or concentration of uranium or thorium.

4.2 When Envirocare applied for a license to accept 11e.(2) material for disposal, the NRC also required Envirocare to submit a detailed Environmental Report, which formed the basis of the NRC's decision to require that an EIS be prepared pursuant to the NRC's NEPA regulations. See 10 C.F.R. part 51. Envirocare spent an estimated \$1.675 million for the costs it incurred in preparing the EIS at the direction of the NRC.

4.3 IUSA has operated a uranium mill at its White Mesa site, at which it has processed materials from its own mine, and from outside generators. IUSA has disposed of the radioactive wastes that were produced as byproducts of its milling operations on site.

4.4 The NRC has issued upgraded Source Material License SUA-1358 for IUSA's mill, pursuant to 10 C.F.R. part 40. This license authorizes IUSA to receive and transfer uranium, possess byproduct material generated by mill operations, and accept limited amounts of byproduct material from in situ leach uranium mining facilities. Publicly available information indicates that IUSA continued to receive materials from outside generators for processing, and that it continued to dispose of the radioactive waste byproducts on site. A review of publicly-available documents also indicates that this license was approved without the preparation of an EIS. IUSA has subsequently applied for multiple amendments to its license. The NRC did not conduct full environmental review under NEPA for any of these license amendments.

4.5 By letter dated October 15, 1998, IUSA submitted its request for an amendment to Source Material License SUA-1358 in order to allow it to accept for disposal up to 30,000

cubic yards of 11e.(2) material from the Ashland 1 and Seaway Area D FUSRAP sites near Tonawanda, New York, in addition to the material it already accepts from in situ leaching facilities.

4.6 In seeking its license amendment, IUSA has not demonstrated that it will process the Ashland 1 materials primarily for their source-material content as required by the Guidance.

4.7 Envirocare submits that IUSA cannot make such a demonstration because its proposed amendment does not meet either the financial justification or the co-disposal tests.

4.8 The financial justification test requires that IUSA (1) certify under oath "that the feed material is to be processed primarily for the recovery of uranium and for no other primary purpose," and (2) justify the certification, with reasonable documentation, based on "financial considerations, the high uranium content of the feed material, or other grounds." 60 Fed. Reg. 49297 (Emphasis added). Although IUSA has certified under oath that the Ashland 1 feed material is to be processed primarily for the recovery of uranium, other facts strongly suggest that disposal and not the recovery of uranium is the primary purpose behind IUSA's license amendment request. Indeed, the facts demonstrate that the payment IUSA will receive to accept the Ashland 1 material greatly exceeds the small value of the uranium contained within the material. A review of these facts shows that IUSA is attempting to do exactly what the NRC's Guidance is intended to avoid -- "processing [of waste] at a uranium mill primarily to be able to dispose of it in the tailings pile as 11e.(2) byproduct material." 60 Fed. Reg.

49297. Moreover, IUSA has not submitted detailed documentation as required by the Guidance to support its claim that financial considerations justify the processing of the Ashland 1 material primarily for its source-material content. (For a more detailed discussion of the facts demonstrating IUSA's failure to satisfy the financial justification test, please refer to the letter from Kenneth Alkema to Joseph J. Holonich, dated November 1, 1998 (the "Alkema Letter"), incorporated herein by reference and attached as Exhibit B, at pp. 4-6.)

4.9 Because IUSA cannot satisfy the NRC's financial justification test, it must demonstrate that it satisfies the co-disposal test. However, IUSA's application also fails to demonstrate that this test has been satisfied. In fact, IUSA has failed to demonstrate satisfaction of the factors articulated in the Guidance, including whether disposition of the material would be approved by the "Regional Low-level Waste Compact" in the originating and disposal states and whether the Department of Energy ("DOE") or the State of Utah has committed to take title to the tailings impoundment after closure. 60 Fed. Reg. 49296. Furthermore, because this material is not regulated under the AEA according to the NRC, it is not legally appropriate for direct disposal in IUSA's mill tailings impoundment and thus cannot satisfy the co-disposal test. (For a more detailed discussion of IUSA's failure to satisfy the co-disposal test, please see the Alkema Letter, attached as Ex. B, at pp. 2-3.)

4.10 Envirocare further submits that the NRC must perform a thorough review and analysis of all Environmental Protection Agency, State of New York, Army Corps of Engineers and other documents to determine whether the proposed feed material contains any

hazardous waste under the Guidance. If the NRC determines that the Ashland 1 material contains any hazardous waste, IUSA's amendment request must be rejected.

4.11 NRC's NEPA regulations require that an applicant for an amendment to a license issued pursuant to 10 C.F.R. part 40 must submit an Environmental Report with that application. 10 C.F.R. § 51.60. IUSA did not submit an Environmental Report with its application for an amendment to its license to allow it to conduct additional land disposal of 11e.(2) material. No environmental evaluation has been performed.

4.12 NRC's NEPA regulations also require that an EIS be prepared for licensing actions that are major actions that significantly affect the quality of human environment. 10 C.F.R. § 51.20. Those regulations state that renewal of a license authorizing receipt and disposal of radioactive waste from other persons or amendment of such a license relating to closure of a land disposal site are the types of action that require an EIS. 10 C.F.R. §§ 51.20(b)(11) and (12). The detailed requirements set forth in 10 C.F.R. part 40 appendix A also indicate that selection of a disposal site for 11e.(2) byproduct material is a major federal action that has a significant impact on the human environment. Further, IUSA's request for a license amendment effectively asks for renewal of authorization to dispose of radioactive wastes from other persons. Thus, before the NRC considers IUSA's license amendment request, it should require that an EIS be prepared to assess the environmental impact of IUSA's request.

4.13 Additionally, IUSA's amendment application must address the impacts that the shipment of this radioactive waste from New York to Utah will have on the environment. These impacts can include the impact on the highways and public roads from the increased traffic associated with such shipment, and the increased risk of radiological accidents that results from increased numbers of trucks and railcars carrying radioactive wastes to IUSA's facility. IUSA's application fails to address these concerns.

V. ENVIROCARE'S SHOWING UNDER 10 C.F.R. § 2.1205(e)

5.1 Envirocare is a "person" whose interest may be affected by the proposed amendment to IUSA's license, and is therefore entitled to file this request for a hearing pursuant to 10 C.F.R. § 2.1205(a).

5.2 In addition to the above, Envirocare makes the following showing in support of its right to request a hearing on IUSA's amendment, pursuant to 10 C.F.R. § 2.1205(e) and (h):

5.3 Interest of requestor in proceeding:  
[10 C.F.R. § 2.1205(e)(1)]

5.3.1 Envirocare is in the business of operating a facility in Clive, Utah, for the disposal of radioactive waste, and is licensed by the NRC to receive and dispose of 11e.(2) byproduct material. Envirocare's license complies with strict standards, as set forth in 56 FR 2959.

5.3.2 Envirocare's licensing as a disposal facility provided the public an opportunity to comment on NRC's proposed licensing of Envirocare as a radioactive waste

disposal facility. Envirocare was required as a radioactive waste disposal facility in Utah to obtain a ground water discharge permit from the Utah Department of Environmental Quality.

5.3.3 As such, Envirocare has an economic interest in ensuring that all licensees that propose to accept 11e.(2) byproduct material comply with applicable NRC standards. Additionally, Envirocare has an interest, as a member of an environmentally sensitive industry, in ensuring that the environmental laws designed to protect human health and the environment from the hazards of radioactive waste disposal are uniformly applied and enforced by the NRC.

5.3.4 Envirocare is qualified to bid on the disposal of the radioactive material being removed from the Ashland 1 and Seaway Area D sites and have the contract awarded to it. Envirocare will be excluded from competing for the disposal of that material if the NRC decides that the material can be "reprocessed" at IUSA's mill rather than at a facility specifically designated and licensed for the disposal of such radioactive material. If the NRC grants IUSA's license amendment request, Envirocare will lose the opportunity to compete altogether for the right to perform the work called for relative to the disposal of the Ashland 1 material -- and the profits to be derived therefrom -- constituting "irreparable injury" to Envirocare.

5.4 How interest may be affected by results of proceeding:  
[10 C.F.R. § 2.1205(e)(2), (h)(1)-(3)]

5.4.1 If the NRC does not require IUSA's amendment application to comply with the standards in 10 C.F.R. part 40, which Envirocare was required to comply with, Envirocare will be adversely affected in the following ways:

5.4.2 First, compliance with the strict standards applied to Envirocare constitutes a substantial financial burden to Envirocare. For example, 10 C.F.R. part 40 appendix A sets forth stringent site and design criteria, groundwater protection standards, radon barrier requirements, detection monitoring requirements, and inspection requirements. Envirocare is required to construct and operate its byproduct material disposal system in accordance with these standards. If the NRC does not require IUSA's White Mesa site to meet the same strict standards, Envirocare will be placed at a severe competitive disadvantage because IUSA's lower costs will allow it to attract customers away from Envirocare.

5.4.3 Second, the criteria set forth in 56 FR 2959 are designed to protect the public against the health and safety dangers posed by byproduct material. If the NRC does not hold IUSA to the same strict standards, there is a risk that IUSA's operation of the White Mesa facility might result in harm to the public health and safety. Harm to the public resulting from IUSA's operation of the White Mesa facility would create public outcry for additional regulation of all byproduct material disposal facilities, raising costs for all operators in the industry (even those, such as Envirocare, who have operated their facilities in an environmentally safe manner).

5.4.4 Third, the NRC also required the preparation of an EIS for Envirocare's licensing as an 11e.(2) disposal facility, at Envirocare's expense. Preparation of an EIS ensured that (1) any significant adverse effect on the human environment from its facility would be identified and analyzed, (2) alternatives to the license would be identified and analyzed, (3) the public would have the opportunity to comment on the potential adverse environmental effects, and (4) any adverse effects could then be mitigated. Failure to require the preparation of an EIS means that the potentially negative environmental impacts of, and alternatives to, IUSA's proposed license amendment will not be identified and analyzed, nor will there be public comment and participation as mandated by NEPA. This failure potentially threatens public health and the environment and will undermine public confidence in 11e.(2) radioactive waste disposal facilities.

5.4.5 Fourth, failure to impose comparable requirements on IUSA creates an unfair competitive advantage for IUSA and a concomitant disadvantage for Envirocare. If the NRC does not require IUSA to prepare an EIS for a license to accept 11e.(2) material, it confers an unfair economic (and hence competitive) advantage on IUSA.

5.4.6 Envirocare satisfies the judicial standards for standing. The adverse effects described in the preceding paragraphs satisfy the injury in fact requirement.<sup>2</sup>

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<sup>2</sup> As indicated above, Envirocare respectfully disagrees with the decisions of the NRC relating to the issue of Envirocare's standing in similar matters, and asserts, for the same reasons articulated in its earlier filings, that Envirocare has standing to participate as a party in this matter.

5.4.7 Moreover, Envirocare's financial interests as an operator in the byproduct material disposal business are within the zone of interests protected by the AEA. 42 U.S.C. §§ 2011-2284. The AEA and the regulations promulgated thereunder provide that the NRC in its management of byproduct material shall give due consideration to the economic costs associated with possession and transfer of such material. See 42 U.S.C. § 2114(a)(1), 10 C.F.R. part 40 appendix A.

5.4.8 Envirocare's environmental and economic interests are also within the zone of interests protected by both NEPA and the AEA. See 42 U.S.C. § 4331-4332; and 42 U.S.C. § 2114. Both these statutes are designed to protect the public health and the environment, as well as foster the environmentally responsible growth of the nuclear energy industry. Envirocare, as a member of that industry, is in a unique position to help ensure that the NRC lives up to those statutory objectives.

5.4.9 An order by the NRC requiring IUSA's amendment to comply with the same AEA and NEPA requirements that Envirocare was required to comply with would prevent the above-described injury to Envirocare's interests.

5.5 Requestor's areas of concern about the licensing activity that is the subject matter of the proceeding:  
[10 C.F.R. § 2.1205(e)(3)]

5.5.1 IUSA's proposed amendment is subject to the requirements of 10 C.F.R. part 40. See 10 C.F.R. §§ 40.2, 40.3.

5.5.2 10 C.F.R. part 40 appendix A sets forth stringent site and design criteria, groundwater protection standards, radon barrier requirements, detection monitoring requirements, and inspection requirements.

5.5.3 Applications for license amendments must be filed in accordance with 10 C.F.R. § 40.31. See 10 C.F.R. § 40.44.

5.5.4 10 C.F.R. § 40.31 requires the applicant to clearly demonstrate by means of written specifications in the application, how the requirements of 10 C.F.R. part 40 appendix A have been addressed. Failure to make such a showing is grounds for the NRC to refuse to accept an application.

5.5.5 IUSA's summary application for its proposed amendment fails to set forth written specifications showing that the requirements of 10 C.F.R. part 40 appendix A have been met. See IUSA's request for amendment dated October 15, 1998.

5.5.6 IUSA proposes to process and dispose of newly received byproduct material. As set forth hereinabove, IUSA's license amendment does not satisfy the requirements of the NRC's Guidance -- there is no NRC staff analysis of the license amendment request; there is no showing that the Ashland 1 material does not contain hazardous waste; IUSA is not processing the material for its source material content; and IUSA does not meet either the economic justification or the co-disposal test within the NRC's Guidance.

5.5.7 NEPA is designed to ensure that federal agencies fully develop information that allows them to consider the environmental impact of their actions, and an EIS is evidence that an agency has considered environmental concerns. NEPA also ensures that the public is made aware of potential adverse environmental effects and has the opportunity to comment on them.

5.5.8 IUSA's application fails to consider the environmental impacts of its request.

5.5.9 Envirocare has concerns under both NEPA and the AEA to ensure that public confidence in low-level radioactive waste disposal sites is not undermined by the NRC's failure to ensure that adequate information about environmental impacts of a proposed disposal scheme is identified and analyzed.

5.5.10 Envirocare has an economic concern that IUSA has failed to adequately address the environmental impact of its amendment application. Envirocare spent almost \$1.675 million to reimburse the NRC for costs the NRC incurred in preparing an EIS for Envirocare's disposal facility. If IUSA's license amendment is granted, IUSA will save the substantial costs associated with preparing an EIS, costs that it will not have to pass on in fees charged to 11e.(2) waste generators. IUSA will be able to charge lower fees and will gain a competitive advantage over Envirocare.

5.5.11 Envirocare's economic interests are tied to its environmental interest in the safe operation of IUSA's facility. If the environmental impacts of IUSA's license

amendment are not adequately assessed or identified for public comment, public confidence in the safe operation of low-level radioactive waste facilities will suffer. The nuclear energy industry is a controversial and politically sensitive one. If public confidence in the safe disposal of radioactive waste is lost, the future of these facilities will be endangered.

5.6 Circumstances establishing that request for hearing is timely:  
[10 C.F.R. § 2.1205(e)(4)]

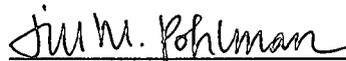
5.6.1 Section 2.1205(d)(1) states that a request for hearing shall be filed within thirty days of the NRC's publication in the Federal Register of a notice relating to a license amendment request. The NRC published notice of its receipt of IUSA's license amendment request relating to the Ashland 1 and Seaway Area D materials on November 3, 1998. Therefore, by filing this request on December 3, 1998, Envirocare's request is timely pursuant to 10 C.F.R. § 2.1205(d)(1).

VI. CONCLUSION

For the foregoing reasons, Envirocare respectfully requests that the NRC grant a hearing on IUSA's amendment pursuant to 10 C.F.R. part 2 subpart L and take the other actions requested in this Petition.

DATED this 3rd day of December, 1998.

STOEL RIVES LLP



David Jordan

Jill M. Pohlman

Attorneys for Envirocare of Utah, Inc.

Service of Envirocare of Utah, Inc. may be made on:

David J. Jordan  
Jill M. Pohlman  
STOEL RIVES LLP  
One Utah Center, Eleventh Floor  
201 South Main Street  
Salt Lake City, Utah 84111-4904



**CERTIFICATE OF SERVICE**

I hereby certify that I caused the original and two copies of the **Request for Hearing of Envirocare of Utah, Inc.** to be mailed, postage prepaid, this 3 day of December, 1998 to the following:

Secretary, U.S. Nuclear Regulatory Commission  
Attn: Rulemakings and Adjudications Staff  
Washington, DC 20555-0001

and a true and correct copy of the foregoing **Request for Hearing of Envirocare of Utah, Inc.** to be mailed, postage prepaid, this 3 day of December, 1998 to the following:

Rulemakings and Adjudications Staff of the  
Offices of the Secretary  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

International Uranium (USA) Corporation  
Independence Plaza, Suite 950  
1050 Seventeenth Street  
Denver, CO 80265

Executive Director of Operations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

*Jim. Pohlman*

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56 FR 2959 printed in FULL format.

NUCLEAR REGULATORY COMMISSION

[Docket No. 04008989]

56 FR 2959

January 25, 1991

Envirocare of Utah, Inc.; Receipt of Application for Byproduct Material Waste Disposal License

FOR FURTHER INFORMATION CONTACT: Terry L. Johnson, Uranium Recovery Branch, Division of Low-Level Waste Management and Decommissioning, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3440.

TEXT: Notice of Receipt of Application for Byproduct Material Waste Disposal License

Notice is hereby given that the U.S. Nuclear Regulatory Commission (NRC) has received, by letter dated November 14, 1989, an application and safety analysis report from Environcare of Utah, Inc., for a license to accept and dispose of uranium and thorium byproduct material (as defined in section 11e.(2) of the Atomic Energy Act, as amended) received from other persons, at a site near Clive, Utah.

The applicant proposes to dispose of high-volume, low-activity section 11e.(2) byproduct material received in bulk by rail and truck.

The material will be placed in earthen disposal cells in lifts and covered with earth and rock. The applicant proposes to conduct operations on a site where the applicant currently disposes of Naturally Occurring Radioactive Material (NORM) under license from the Utah Department of Health, Bureau of Radiation Control.

The State of Utah has recently been granted an amended agreement, pursuant to section 274b. of the Atomic Energy Act, as amended, to expand its regulatory authority to include the disposal of low-level radioactive waste. The authority does not, however, include authority to regulate the disposal of section 11e.(2) byproduct material. Regulatory authority for the disposal of section 11e.(2) byproduct material in the State of Utah remains with the NRC.

The disposal of waste considered in this notice would occur in disposal units separate from those used to dispose of other categories of waste.  
Notice of Availability of Applicant's Application

The applicant's application, which describes the natural and proposed design features of the facility, as well as facility operations, is being made available for public inspection at the Commission's Public Document room at 2120 L Street, NW. (Lower Level), Washington, DC 20555.

Notice of the Regulatory requirements That NRC Will Apply in the Review of the Application and in Reaching a Licensing Decision

By this notice, the Commission is establishing the applicability of its regulations to this specific application for the commercial disposal of section 11e.(2) byproduct material.

1. The Commission has determined that 10 CFR part 40, including appendix A, applies to the review of this application to dispose of section 11e.(2) byproduct material. The applicant may request an exemption from any requirements in 10 CFR part 40 that it believes should not apply.

2. The NRC staff will prepare an environmental impact statement (EIS) pursuant to the requirements of 10 CFR part 51. The EIS will be based on the staff evaluation of an environmental report to be prepared by the applicant.

3. Certain administrative and recordkeeping requirements delineated in 10 CFR part 61, subpart G, must be included in the license. These requirements are given in 10 CFR 61.80 and 61.82.

4. The waste manifest requirements contained in 10 CFR 20.311 will be made applicable by a license condition. The licensee will be allowed to accept waste only if it is accompanied by a manifest prepared according to 10 CFR 20.311. Based on the application, the NRC staff may consider, as part of the licensing process, exemptions for certain specific packaging, classification, and labeling requirements contained in 10 CFR 20.311, for land burial, that may not be germane to section 11e.(2) byproduct material waste shipped to the facility. The staff will also require that more information be obtained from the generator on the chemical constituents than the "principle chemical form" as specified in 10 CFR 20.311(b) in order to address the data and groundwater protection requirements of appendix A to 10 CFR part 40.

5. The general requirements of other Commission regulations: 10 CFR part 19 -- "Notices, Instructions, and Reports to Workers: Inspections and Investigations"; 10 CFR Part 20 -- "Standards for Protection Against Radiation"; and 10 CFR Part 21 -- "Reporting of Defects and Noncompliance," will apply according to their terms.

Notice of Opportunity for Hearing

The applicant and any person whose interest may be affected by the issuance of this license may file a request for a hearing. A request for hearing must be filed with the Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555, within 30 days of the publication of this notice in the Federal Register; be served on the NRC staff (Executive Director for Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852); be served on the applicant (Envirocare of Utah, Inc., 175 South West Temple, suite 500, Salt Lake City, Utah 84101); and must comply with the requirements set forth in the Commission's regulations, 10 CFR 2.105 and 2.714. The request for hearing must set forth with particularity the interest of the petitioner in the proceeding and how that interest may be affected by the results of the proceeding,

including the reasons why the request should be granted, with particular reference to the following factors:

1. The nature of the petitioner's right, under the Act, to be made a party to the proceeding;
2. The nature and extent of the petitioner's property, financial or other interest in the proceeding; and
3. The possible effect, on the petitioner's interest, of any order which may be entered in the proceeding.

The request must also set forth the specific aspect or aspects of the subject matter of the proceeding as to which petitioner wishes a hearing.

The applicant, any person admitted as a party, or an entity participating under 10 CFR 2.715(e), may move the Commission to reconsider any portion of this notice relating to the applicability of 10 CFR 20.311 and 10 CFR 61.80 and 61.82. The petition must be filed within 60 days after the person or entity is admitted to the proceeding and contain all technical or other arguments to support the petition. The motion will be processed under 10 CFR 2.730.

Dated at Rockville, Maryland, this 18th day of January 1991.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 91-1756 Filed 1-24-91; 8:45 am]

BILLING CODE 7590-01-M

58 FR 62690 printed in FULL format.

FEDERAL REGISTER  
VOL. 58, No. 227

Notices

NUCLEAR REGULATORY COMMISSION (NRC)

[Docket No. 40-8989]

Envirocare of Utah, Inc.; Issuance of Facility License

58 FR 62690

DATE: Monday, November 29, 1993

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To view the next page, type .np\* TRANSMIT.  
To view a specific page, transmit p\* and the page number, e.g. p\*1  
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Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission or NRC), has issued Byproduct Material License N. SMC-1559 to Envirocare of Utah, Inc. which authorizes the receipt, storage, and disposal of 11e.(2) byproduct material (as defined in section 11e.(2) of the Atomic Energy Act of 1954, as amended) at a site near Clive, Utah.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's Regulations in 10 CFR chapter I which are set forth in the license. Prior public notice of the overall action involving the proposed issuance of license was published in the Federal Register on January 25, 1991 (56 FR 2659).

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by this license is encompassed by the overall evaluation described in the Final Environmental Statement.

For further details with respect to this action, see (1) byproduct Material License SCM-1559; (2) the Commission's Final Safety Evaluation Report, dated June 18, 1993, and Supplement 1; (3) the License Application, and amendments thereto; (4) the Environmental Report, and amendments thereto; and (5) the Final Environmental Statement dated August 1993.

These items are available for inspection at the Commission's Public Document Room located in the Gelman Building, Lower Level, 2120 L Street, NW., Washington, DC.

Dated at Rockville, Maryland this 19th day of November 1993. [\*62691]

For the Nuclear Regulatory Commission.

Daniel M. Gillen,

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

[FR Doc. 93-29128 Filed 11-26-93; 8:45 am]

BILLING CODE 7590-01-M

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below: to use such material for the purposes and at the places designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		3. License Number
1. Envirocare of Utah, Inc.		SMC-1559, Amendment No. 13
2. 46 W. Broadway Suite 240 Salt Lake City, Utah 84101		4. Expiration Date November 30, 2003
		5. Docket or Reference No. 40-8989

Byproduct, Source, and/or Special Nuclear Material

7. Chemical and/or Physical Form

8. Maximum Amount that Licensee May Possess at Any One Time Under This License

11e.(2) byproduct material

Packaged or Bulk Radioactive Waste

5.5 Million Cubic Yards [Applicable Amendment: 5]

This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I, Parts 19; 20; 21; 40, including Appendix A; 51; 61.80; and 61.82 and is subject to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below.

SECTION 9.0: Administrative Conditions

- 9.1 All notices to the Nuclear Regulatory Commission required under this license shall be addressed to the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.....
- 9.2 Authorized place for use shall be the licensee's facility located in Section 32 of Township 1 S, Range 11 W, Tooele County, Utah, near Clive.
- 9.3 Authorized use is for the receipt, storage, and disposal of 11e.(2) byproduct material in accordance with statements, descriptions, and representations contained in the licensee's application, including appendices, submitted by cover letter dated 12/23/91; as amended by page changes submitted on 07/02/92, 08/10/92, 04/05/93, 04/07/93, 04/10/93, 05/03/93, 05/06/93, 05/11/93, 05/21/93, 07/01/93, 07/25/93, 08/03/93, 08/11/93, 08/19/93, 08/25/93, 01/14/94 (deletes only Operating Procedure TRAIN-1; other documents submitted on this date remain in force), 01/21/94, 03/01/94, 03/08/94, 04/19/94, 06/10/94, 06/29/94, 06/30/94, 07/27/94, 08/03/94, 09/1/94, 01/19/95, 03/24/95, 04/11/95 (deletes only Appendix JJ, Quality Assurance Manual; other documents submitted on this date remain in force), 05/24/95, 06/14/95, 08/25/95, 09/18/95, 04/01/98, 04/08/98, and 04/17/98.

Notwithstanding the above, the following conditions shall override any conflicting statements contained in the licensee's application and supplements.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

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[Applicable Amendments: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12]

9.4 In accordance with NRC approved performance based license provisions:

- 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 (excluding material referenced in License Condition 9.3), 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 the site Environmental Impact Statement (NUREG-1476) dated August 1993, and the Safety Evaluation Report (NUREG-1486) dated January 1994.
  
- 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

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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.

[Applicable Amendment: 7]

- 9.5 In order to assure that no unapproved disturbance of cultural resources occurs, the licensee shall cease any work resulting in the discovery of previously unknown cultural artifacts and report the discovery, in writing, to the NRC and the Utah State Historic Preservation Office (SHPO). The artifacts shall be inventoried and evaluated in accordance with 36 CFR Part 800, and no disturbance shall occur until the licensee has received written authorization from the NRC to proceed.
  
- 9.6 Prior to the initial receipt and storage of any 11e.(2) byproduct material at the site, the licensee shall:
  - a) establish and implement standard operating procedures (SOPs) for all operational activities involving the handling, storing or disposing of radioactive materials. SOPs for operational activities shall enumerate pertinent radiation safety practices to be followed. In addition, SOPs shall be established and implemented for non-operational activities to include environmental monitoring, bioassay analysis, and instrument calibration. An up-to-date copy of each written SOP, as controlled under the quality assurance (QA) procedures, shall be kept in each area where it is used.
  - b) Deleted by Amendment 1
  - c) Deleted by Amendment 1
  - d) Deleted by Amendment 1
  - e) modify the Quality Control/Quality Assurance Plan to provide quality controls for waste sampling and characterization. The plan must also be modified to provide controls for the quality of the protective equipment (e.g., anticontamination clothing and equipment that meets the ANSI Z-88.2 guidance (ANSI, 1989)) and respiratory protection equipment;
  - f) design and implement an effective air sampling program in the workplace based on Revision 1 to NRC Regulatory Guide 8.25 (1992) entitled "Air Sampling in the Workplace," or an equivalent program.

[Applicable Amendment: 1]

- 9.7 Prior to the initial disposal of 11e.(2) byproduct material, the licensee shall:
  - a) Deleted by Amendment 1

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- b) Deleted by Amendment 1
- c) Deleted by Amendment 1
- d) Deleted by Amendment 2

[Applicable Amendments: 1, 2]

9.8 The licensee shall have all written SOPs reviewed and approved by the CRSO, or designate, qualified by way of specialized radiation protection training equivalent to that required for the CRSO as defined in License Condition 9.10, before being implemented and whenever a change in a procedure is proposed. All existing facility SOPs related to operational and non-operational activities shall be reviewed and documented by the CRSO on an annual basis.

[Applicable Amendment: 7]

9.9 Any change to the licensee's corporate organizational structure, as presented in the license application, affecting the assignment or reporting responsibility of the radiation staff shall conform to Regulatory Guide 8.31, "Information Relevant to Ensuring That Occupational Radiation Exposures at Uranium Mills Will Be As Low As Is Reasonably Achievable."

[Applicable Amendment: 7]

9.10 The licensee shall have a CRSO responsible for the site who shall report directly to the Vice-President of Compliance/Licensing on matters dealing with radiological safety aspects of the licensed facility. In addition to the responsibilities and qualifications specified in the licensee's application, the CRSO, or his designate shall be qualified as specified in Sections 1.2 and 2.4 of Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills will be As Low As Reasonably Achievable," dated May 1983. In addition, the CRSO, or his designate shall have the authorities and responsibilities recommended in Section 2.1 of NRC Regulatory Guide 8.31. The CRSO shall also receive 40-hours of related health and safety refresher training every two years.

The Field Radiation Safety Officer (FRSO) is responsible to the CRSO and works very closely with the Site Manager. Individuals designated as Radiation Technician (RT) and Radiation Monitor (RM) shall report to the Site Manager and the FRSO on matters dealing with radiological safety. In addition, the CRSO, or his designate shall be accessible to the FRSO, RT, and RM at all times. In addition to the responsibilities and qualifications specified in the license application, the FRSO, RM, and RT shall have qualifications as specified in Section 2.4 of Regulatory Guide 8.31, or equivalent. Any person newly hired as an FRSO, RT, and RM shall have all work reviewed and approved by the CRSO as part of a comprehensive training program until appropriate course training is complete, and for at least 6 months from the date of appointment.

For the purposes of this license condition, reference to "uranium mill" or "milling" in NRC Regulatory Guide 8.31 shall mean the licensee's facility and authorized activities.

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[Applicable Amendment: 11]

9.11 The licensee shall conduct:

- a) annual training for its facility inspectors that covers all areas included in the daily inspections of the 11e.(2) byproduct material and the disposal area.
- b) annual operational training that covers all aspects of operational safety and emergency procedures for all employees. The SOPs will be used to conduct operations training to assure consistency and thoroughness.

9.12 The licensee shall maintain an NRC-approved financial surety arrangement, consistent with 10 CFR 40, Appendix A, Criterion 9, adequate to cover the estimated costs, if accomplished by a third party, for completion of the NRC-approved reclamation/decommissioning plan including; above-ground decommissioning and decontamination and groundwater restoration, as warranted.

Annual updates to the surety amount, required by 10 CFR 40, Appendix A, Criterion 9, shall be provided to the NRC at least 3 months prior to August 31 of each year. If the NRC has not approved a proposed revision 30 days prior to the expiration date of the existing surety arrangement, the licensee shall extend the existing arrangement, prior to expiration, for 1 year. Along with each proposed revision or annual update of the surety, 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, changes in engineering plans, activities performed, and any other conditions affecting estimated costs for site closure. The licensee must also ensure that the surety covers the above-ground decommissioning and decontamination, soil and water sample analyses, and groundwater restoration associated with the site. The basis for the cost estimate is the NRC-approved reclamation/decommissioning plan or the NRC-approved revisions to the plan.

Envirocare's currently approved surety instrument, Escrow Agreement (Account No. 2407000), issued by Zions First National Bank of Utah on February 7, 1996, in favor of the NRC, shall be continuously maintained in an amount not less than \$3,306,888 for the purpose of complying with 10 CFR 40, Appendix A, Criteria 9, until a replacement is authorized by the NRC.

[Applicable Amendments: 1, 6, 8, 9, and 10]

9.13 The licensee shall require a radiation work permit (RWP) for work where the potential for significant exposure to radioactive materials exists and for which no SOP exists. Each RWP shall contain the information specified in Regulatory Guide 8.31.

The CRSO, or designate, qualified by way of special radiation protection training equivalent to that required for the CRSO as defined in License Condition 9.10, shall indicate by signature, the review and approval of each RWP, prior to the initiation of the work.

[Applicable Amendment: 7]

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- 9.14 The licensee shall provide SOPs for controlling internal contamination of workers from dust inhalation, which shall include the use of dust suppressants (e.g., magnesium chloride or water) on all operational roads, as necessary.
- 9.15 The licensee shall have the CRSO, or designate, qualified by way of specialized radiation protection training equivalent to that required for the CRSO as described in License Condition 9.11, perform qualitative respirator fit tests using irritant smoke for all employees required to wear respirators prior to the initial use of a respirator and annually thereafter. During the annual fit test, the CRSO shall ensure that the employee is correctly performing negative pressure fit checks and shall instruct the employee that the fit test is to be performed each time a respirator is donned and prior to entering an area where respirators are required. The licensee shall follow the guidance provided in Regulatory Guide 8.15 "Acceptable Programs for Respiratory Protection." The fit tests and fit instructions shall be documented in the SOPs.
- 9.16 The licensee shall complete "as built drawings" of the facility on a annual basis. The "as built drawings" shall be certified by a professional engineer.
- 9.17 The licensee shall provide for an independent internal audit of facility operations to assure compliance with applicable regulations and license conditions. The independent internal audit will be conducted annually by a qualified health physicist knowledgeable on operations concerning radiation protection programs at milling/waste disposal facilities. The contractor report shall be submitted as part of the annual report.

[Applicable Amendment: 7]

**SECTION 10.0: Operational Controls, Limits, and Restrictions**

- 10.1 The licensee shall restrict eating and drinking to the administrative offices, and enclosed lunch areas that are separated from the disposal areas. With the exception of drinking from closeable containers, there will be no eating, drinking, smoking, defecating, or urinating in the restricted areas, at any time.
- 10.2 The licensee shall analyze and adequately characterize:
- a) all incoming waste to identify any new hazardous constituents not listed in License Condition 11.1. The licensee shall develop and implement methodologies and procedures for systematic characterization and analysis of the incoming waste, so that any new hazardous constituents are identified. Furthermore, the licensee shall assume that the baseline background concentrations for any new constituents are below their detection levels, unless the licensee demonstrates to NRC staff satisfaction that the constituents will not reach the water table in one year and proceeds to establish background based on direct monitoring of these constituents in the Point of Compliance (POC) wells for one full year.
  - b) the following key radon attenuation model parameter values during placement to verify that the values used in the licensee's radon attenuation model have been achieved: 1) porosity (calculated from as-placed density and specific gravity); 2)

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License Number

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emanation factor (contaminated material only); and 3) diffusion coefficient for the upper ten feet of 11e.(2) byproduct material and the radon barrier material at several moisture levels, including the long-term moisture content value for that material. Testing shall be conducted at least once every 5000 cy of contaminated and radon barrier material placed or at least two every month of material placement. The licensee shall use American Society for Testing and Materials (ASTM) testing procedures, or the equivalent. Average values for each parameter will be calculated and provided in the annual effluent and environmental monitoring report.

[Applicable Amendment: 4]

- c) the distribution of the  $^{226}\text{Ra}$  and  $^{230}\text{Th}$  concentrations in the 11e.(2) byproduct material in the upper 3.3 meters (10 feet) of the contaminated material to verify that the concentration in any lift does not exceed the values used in the radon attenuation model. The licensee shall measure the  $^{226}\text{Ra}$  and  $^{230}\text{Th}$  concentrations using standard analytical procedures, for every 3000 cy of material placed for compaction or at least once a week during material placement. The data will include the elevation (or lift number) of the sample location. The results will be presented as average values for each lift in the annual effluent and environmental monitoring report.

[Applicable Amendment: 4]

- 10.3 The licensee shall assume full responsibility for cleaning up the groundwater of all hazardous constituents detected at the POC in concentrations that exceed the limits specified in License Condition 11.1. It shall be assumed that the 11e.(2) disposal facility is the source of all of the hazardous constituents detected in the POC wells, unless it can be demonstrated to the NRC's satisfaction, based on field and laboratory data, that the 11e.(2) facility is not the source of particular constituents. NRC shall have the final decision concerning any claim by the licensee that the 11e.(2) facility is not the source of a particular constituent that is detected at the POC.

The licensee shall undertake corrective action to clean up groundwater contamination if and when required, no later than 18 months from the date when exceedence of a standard has first been discovered, and without taking credit for any delays caused by disagreements as to the source of contamination. The licensee shall consider and evaluate existing and new groundwater clean-up technologies before selecting and implementing an appropriate clean-up program.

[Applicable Amendment: 7]

- 10.4 The licensee shall continue groundwater and land surface monitoring at all POC locations throughout the post closure period until the disposal facility is transferred to long-term government custody.
- 10.5 The licensee shall implement the quality assurance plan as provided in the license application.
- 10.6 The licensee shall, upon arrival of the waste and before acceptance on site, visually inspect

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the waste or use the Environmental Protection Agency Paint Filter Liquid Test (SW-846, Method 9095) to determine if the waste contains free liquid. The licensee shall not accept any waste containing free liquid for disposal. The licensee however, shall be subject to the following minimum frequency of Paint filter Liquid Test analyses and sample collection requirements: (1) for each waste stream, the minimum number of samples to be analyzed shall be one sample for each shipment (rail or highway) for the first 1,000 yd<sup>3</sup> (or any part thereof), and (2) thereafter the minimum number of samples to be analyzed shall be one sample for each set of ten (10) shipments.

[Applicable Amendment: 13]

- 10.7 The licensee shall, upon arrival of waste, perform external exposure rate measurements of the waste conveyances. Any shipment with exposure rates greater than 5 mrem per hour at a distance of 30 cm from any surface, and which cannot be disposed of within 24 hours, shall be posted as a Radiation Area in compliance with 10 CFR 20.1902(a) until disposed.

[Applicable Amendment: 1]

- 10.8 The licensee shall operate the facility in compliance with the following specifications:

- a) The maximum bulk mass of waste disposed of annually will not exceed  $4.536 \times 10^5$  tonnes ( $5 \times 10^5$  tons).
- b) The maximum annual disposal area will not exceed 229 m x 168 m (equivalent to 38,472 m<sup>2</sup>).
- c) Deleted by Amendment 1
- d) The total embankment capacity will not exceed  $2.52 \times 10^6$  m<sup>3</sup> ( $3.3 \times 10^6$  yd<sup>3</sup>).
- e) The maximum volume of waste that may be stored on site prior to disposal will not exceed  $2.743 \times 10^4$  m<sup>3</sup> ( $9.687 \times 10^5$  ft<sup>3</sup>) at any one time.
- f) Waste with an average concentration above 2,000 pCi/g for any radionuclide in the uranium series or above 6,000 pCi/g for any radionuclide in the thorium series in any truck load or railcar will not be accepted.
- g) Deleted by Amendment 1
- h) Deleted by Amendment 1
- i) The licensee shall manage waste receipt, storage, and disposal operations in such manner as to assure compliance with the effluent concentration limits of Table 2, Appendix B to 10 CFR 20.1001 - 20.2401 and population dose limits of 10 CFR 20.1301

The licensee shall maintain the detailed documents demonstrating compliance with the above specifications on-site and summarize the data in the annual report.

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[Applicable Amendment: 1]

**SECTION 11: Inspection, Monitoring, and Recording Requirements**

11.1 The licensee shall implement groundwater monitoring programs throughout the duration of this license, to include the following:

- a) Specifically, the licensee shall conduct detection monitoring, compliance monitoring, corrective action monitoring, and post-closure monitoring in accordance with Criteria 5 and 7 of 10 CFR Part 40, Appendix A, the license application dated November 19, 1993, and applicable supporting documents listed in License Condition 9.3, and as required based on the results of groundwater monitoring. The monitoring shall involve sampling and analysis of representative samples from the POC wells defined in the license application. All water samples shall be collected on a quarterly schedule, at least three months apart.
- b) Detection monitoring shall be conducted after the disposal operation is started as described in Criterion 7A of 10 CFR Part 40, Appendix A. Detection monitoring shall include the constituents listed below, or any added through amendment in accordance with License Condition 10.2(a).

Arsenic	Nickel	Acetone
Barium	Selenium	2-Butanone
Beryllium	Silver	Chloroform
Cadmium	Radium-226	Carbon Disulfide
Chromium	Radium-228	1,2-Dichloroethane
Cyanide	Thorium-230	Methylene Chloride
Fluoride	Thorium-232	Naphthalene
Lead	Uranium	2-Methylnaphthalene
Mercury	Molybdenum	Diethylphthalate

- c) Pursuant to License Condition 9.4, the licensee may establish site-specific compliance standards as the higher of 1) background concentrations, or 2) MCLs provided in 10 CFR Part 40, Appendix A, Table 5C - for those constituents already identified in its NRC-approved detection monitoring program. The licensee must submit to NRC for approval, any proposed site-specific standards for newly identified hazardous constituents that are identified in the incoming waste for which a background concentration level has not been approved by NRC in accordance with License Condition 10.2a.
- d) Compliance monitoring shall be implemented by the licensee in accordance with Criteria 7A and 5B(1) of 10 CFR Part 40, Appendix A for those constituents qualifying as hazardous constituents under Criterion 5B(2) of 10 CFR Part 40, Appendix A. The compliance monitoring period for a particular constituent shall continue from the time a site-specific groundwater protection standard for that constituent is established, until this license is terminated. Table STD-1 in the license application provides a list of hazardous constituents that have been detected in the groundwater above background and for which site-specific standards have been established for the

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disposal site.

- e) Corrective action may be required by NRC if the established standards are exceeded. Corrective action monitoring shall be implemented in conjunction with a corrective action program in order to demonstrate the effectiveness of corrective actions undertaken by the licensee.
- f) Post-closure monitoring shall involve monitoring undertaken after the disposal operation is stopped and until license termination.
- g) If a baseline background ground-water quality value listed in the attached Table S-1 for any of the above constituents is exceeded, or if a new hazardous constituent, identified based on waste characterization (see License Condition 10.2(a)) is detected in a POC well, the licensee shall take a confirmatory sample within 72 hours, excluding weekends and holidays, and have it analyzed. Upon receipt of the sample analysis, if the second sample does not indicate exceedence/detection, a third sample shall be taken within 72 hours, excluding weekends and holidays, and analyzed. If neither the second nor third samples indicate exceedence/ detection, the first sample shall be considered in error. If the second or third sample indicates exceedence/detection, the licensee shall notify NRC and meet the reporting requirements as stated in License Condition 12.2.

In addition, within 30 days from the receipt of the analysis results, the licensee shall develop and implement proposed site-specific standards for groundwater protection and develop a written compliance monitoring plan. The compliance monitoring plan will be in accordance with the sampling schedule specified in Part a) of this license condition and in the applicable regulations, for individual constituents that have been detected in the POC wells in excess of the background values.

All water sampling and analysis activities shall be carried out in accordance with the sampling procedures of a certified laboratory. The sampling of the monitoring wells shall be conducted according to acceptable industry standards and in conformance to the proposed quality assurance measures provided in Appendix Z of the license application.

[Applicable Amendments: 1, 2, and 7]

- 11.2 The licensee shall analyze or submit for analysis by a certified laboratory any monitoring samples within two weeks of the end of the appropriate monitoring compliance period. Inclusion of results into occupational exposure calculations shall be performed within 1 week of receipt of the analysis results. Non-routine samples shall be submitted for analysis by a certified laboratory or the licensee shall begin analysis within 2 working days after sample collection and the CRSO shall review results within 2 working days of receipt of results.
- 11.3 The licensee shall require that the CRSO and the Site Engineer perform and document joint inspections of all work areas at least monthly. The licensee shall correct any deficiency noted during the inspection within 7 working days. The results of the inspections and any necessary corrective actions should be reported in the annual report.

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## 11.4 The licensee shall:

- a) Monitor the following to demonstrate compliance with Subpart C of Part 20, in addition to any personnel monitoring required by 10 CFR 20.1502:
- (1) Continuously monitor at least the following areas for airborne concentrations of  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  as per Section 7.3.2 of the license application (see License Condition 9.3):
    - (i) Waste Unloading Area
    - (ii) Waste Storage Area
    - (iii) Covered Waste Area
    - (iv) Security Guard Trailer
  - (2) Shall perform Airborne Particulate Monitoring as per Section 7.3.1 of the license application (see License Condition 9.3);
  - (3) Shall perform gamma radiation exposure measurements of the work area as per Section 7.3.3 of license application (see License Condition 9.3); and
  - (4) Shall demonstrate that the monitoring locations are representative of the occupational exposure to radiation and radioactive materials.
- b) Monitor the following to demonstrate compliance with Subpart D of Part 20:
- (1) Continuously monitor the site perimeter as per Section 7.4 of the license application (see License Condition 9.3) for  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  airborne concentrations;
  - (2) Shall monitor the effluent release of airborne particulates as per Section 7.4 of the license application (see License Condition 9.3) at the air sampling stations listed in Table 7.2 of the license application (see License Condition 9.3);
  - (3) Shall perform gamma radiation exposure measurements of the unrestricted area as per Section 7.3.3 of the license application (see License Condition 9.3); and
  - (4) Shall assume that the measured net values originated solely from the 11e.(2) disposal facility.
- c) Calculate total effective dose equivalent (TEDE) for its occupational workers and the public to demonstrate that the 5000 mrem (50 mSv) and 100 mrem (1 mSv) dose limits, respectively are not exceeded.

**SECTION 12: Reporting Requirements**

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12.1 Deleted by Amendment 4

12.2 The licensee shall notify the NRC in the event a baseline background water quality value or a groundwater quality standard established for the site is exceeded; or if a new hazardous constituent that was not originally included in the initial list of hazardous constituents, but was subsequently identified in the incoming waste, is detected in the POC wells - as confirmed by groundwater monitoring. The licensee shall notify Region IV and the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards by telephone within 7 days and by letter within 30 days from the time the exceedence is confirmed, or a new hazardous constituent identified by laboratory analyses (see License Condition 11.1).

The licensee shall submit to the NRC a consolidated groundwater sampling report that summarizes the quarterly groundwater data and analyses as part of the licensee's annual reporting requirement.

[Applicable Amendment: 7]

12.3 The licensee shall perform an annual ALARA audit of the radiation safety program which shall be led by the CRSO or designate, qualified by way of specialized radiation protection training equivalent to that required for the CRSO as defined in License Condition 9.10, in accordance with Section 2.3.3 of Regulatory Guide 8.31. The audit team should contain a representative from corporate management. A report of this audit shall be submitted to corporate headquarters and the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, within 60 days after conducting the audit. The report shall include detailed summaries of the analytical results of the radiological surveys. In order to evaluate the ALARA objective, the licensee shall, at a minimum, review the following records:

- a) Bioassay results including any actions taken when the results exceeded action levels in Table 1 of Regulatory Guide 8.22, "Bioassay at Uranium Mills," dated January 1987.
- b) Records of external and internal exposure.
- c) Safety meeting minutes, attendance records, and training program records.
- d) Daily inspection log entries and summary reports of the monthly reviews.
- e) Radiological survey and monitoring data, as well as environmental radiological effluent and monitoring data.
- f) Surveys required by radiation work permits.
- g) Reports on overexposure submitted to NRC and the State of Utah.
- h) Reviews of operating and monitoring procedures completed during the period.

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The audit shall also address any noticeable trends in personnel exposures for identifiable categories of workers and types of activities, any trends in radiological effluent data, and the performance of exposure and effluent control equipment as well as its utilization, maintenance, and inspection history. Any recommendations to further reduce personnel exposures or environmental releases of uranium or radon and radon progeny shall be included in the report.

- 12.4 The licensee shall conduct an annual land use survey for a 5 km radius around the site. The purpose is to assess population growth or industry growth in the immediate vicinity of the Clive facility and provide an inventory of domestic and agricultural wells within the survey area. The licensee shall document this survey in the annual report.
- 12.5 The licensee shall immediately notify Region IV and the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards by telephone within 24 hours and by letter within 7 days of any waste shipment where a violation of applicable regulations or license conditions has been found.
- 12.6 The licensee shall, unless otherwise specified, submit an annual report documenting: 1) the annual reporting requirements as specified in the license conditions, 2) the results of calibration of equipment, 3) reports on audits and inspections completed during the year, 4) the results of all meetings and training courses required by this license, and 5) any other significant subsequent information, reviews, investigations, and corrective actions. This report, covering the calendar year, shall be submitted to the NRC by March 1 following the first full year after receipt of this license, and by March 31 every year thereafter. Unless otherwise specified in the NRC regulations, all such documentation shall be maintained at the site and corporate headquarters for a period of at least five (5) years.
- [Applicable Amendment: 4]
- 12.7 The licensee shall, at least three months prior to license termination, provide a report which demonstrates the site has met all applicable provisions for license termination and transfer of the facility to the government for long-term custody in accordance with 10 CFR Part 40, Appendix A, Criterion 11. Specifically, the licensee shall document that: (1) the concentrations of all of the listed hazardous constituents at the POC are within their designated concentration limits (standards); (2) if a corrective action program was carried out that the hazardous constituents contaminating the ground-water were returned to their designated limits; and, (3) the facility has been properly decontaminated and decommissioned in accordance with the decontamination and decommissioning plan proposed by the applicant in the license application approved by the NRC. The license termination will not occur until the licensee has demonstrated that these actions have been completed.
- 12.8 The licensee shall immediately report: 1) any failure of the 11e.(2) byproduct material disposal cell that results in a release of waste into unrestricted areas; or 2) any unusual conditions that if not corrected could indicate the potential or lead to the failure of the system and result in a release of waste into an unrestricted area; to NRC Region IV and the Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

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FOR THE NUCLEAR REGULATORY COMMISSION

Date: May 19, 1998

Joseph J. Holonich

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

**Table STD-1  
NRC-Approved Site-Specific Standards  
(As of November 20, 1995)**

Constituent	Point of Compliance Monitoring Wells											
	19A	20	24	25	28	27	28	29	57	58	60	63
Inorganic Constituents (mg/l):												
Arsenic <sup>III</sup>	0.05	0.05	0.05	0.11	0.20	0.059	0.078	0.05	0.05	0.12	0.05	0.05
Radioactive Constituents (pCi/l):												
None												
Organic Constituents (ug/l):												
None												

Site-specific standard for arsenic in different Point of Compliance (POC) wells was established as the higher of: (a) 0.05 mg/l, which is the value for maximum concentration for ground water protection provided for the constituent in 10 CFR Part 40, Table 5C, Appendix A; and (b) approved background concentration in Table S-1 (Revision 1, dated November 20, 1995)

Table S-1  
 NRC-Approved Background Concentrations

Constituent	Point of Compliance Monitoring Wells											
	19A	20	24	25	26	27	28	29	67	68	69	63
<b>Inorganic Constituents (mg/l):</b>												
Arsenic <sup>(1)</sup>	0.036	0.042	0.032	0.11	0.2	0.059	0.078	0.023	0.026	0.12	0.028	0.034
Barium <sup>(1)</sup>	0.02	0.023	0.030	0.044	0.044	0.063	0.033	0.038	0.048	0.048	0.037	0.087
Beryllium <sup>(2)</sup>	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Cadmium <sup>(2)</sup>	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Chromium <sup>(2)</sup>	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Cyanide <sup>(2)</sup>	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Fluoride <sup>(1)</sup>	1.12	0.86	0.83	1.04	0.98	1.18	1.02	0.93	0.98	1.11	0.84	1.08
Lead <sup>(2)</sup>	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Mercury <sup>(2)</sup>			0.00020	0.0002	0.0002	0.00028	0.00038	0.00038	0.00038	0.0008	0.00048	0.00048
Molybdenum <sup>(1)</sup>	0.00034	0.00048	0.31	0.3	0.70	0.85	0.48	0.37	0.53	2	0.31	0.31
Nickel <sup>(2)</sup>	0.75	0.33	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.38	0.01	0.01
Selenium <sup>(2)</sup>	0.01	0.01	0.008	0.008	0.014	0.008	0.008	0.008	0.008	0.01	0.015	0.008
Silver <sup>(2)</sup>	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
<b>Radioactive Constituents (pCi/l):</b>												
Radium-226 + 228 <sup>(1)</sup>			5.47	5.38	4.97	3.85	3.59	6.15	3.38		4.07	4.13
Thorium 230 <sup>(1)</sup>	3.28	5.87	1.78	2.8	1.87	4.82	1.18	2.28	3.88	5.15	0.0	2.82
Thorium 232 <sup>(1)</sup>	2.28	1.04	0.0	0.0	0.0	0.0	0.0	0.0	0.18	0.84	0.0	0.0
mg/l:	0.0	0.0								0.0		
Uranium <sup>(1)</sup>	0.0061	0.013	0.02	0.13	0.033	0.027	0.011	0.040	0.0075	0.038	0.02	0.011
<b>Organic Constituents (ug/l):</b>												
Acetone <sup>(2)</sup>			20	20	20	20	20	20	20		20	20
2-Butanone <sup>(2)</sup>	20	20	20	20	20	20	20	20	20	20	20	20
Chloroform <sup>(2)</sup>	20	20	20	20	20	20	20	20	20	20	20	20
Carbon dioxide <sup>(2)</sup>	20	20	20	20	20	20	20	20	20	20	20	20
1,2-Dichloroethane <sup>(2)</sup>	20	20	20	20	20	20	20	20	20	20	20	20
Methylene Chloride <sup>(2)</sup>	20	20	40	40	40	40	40	40	40	20	40	40
Naphthalene <sup>(2)</sup>	40	40	40	40	40	40	40	40	40	40	40	40
Diethylphthalate <sup>(2)</sup>	40	40	40	40	40	40	40	40	40	40	40	40
2-Methylnaphthalene <sup>(2)</sup>	40	40							40	40	40	40

(1) Background levels in all wells set at (mean + 2 standard deviations).  
 (2) Background levels in all wells set at analytical detection limit because (mean + 2 standard deviations) is less than the detection limit.  
 (3) Background levels set at (mean + 2 standard deviations) or analytical detection limit, whichever is larger.  
 [Applicable Amendments: 2, 3, 5, and 7]

**ENVIROCARE** OF UTAH, INC.  
**THE SAFE ALTERNATIVE**

December 1, 1998

**VIA FACSIMILE AND OVERNIGHT MAIL**

Mr. Joseph J. Holonich, Chief  
Uranium Recovery Branch  
Division of Waste Management  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
2 White Flint North, Mail Stop T-719  
11545 Rockville Pike  
Rockville, MD 20852

Re: International Uranium (USA) Corporation's Amendment Request to Process an Alternate Feed at White Mesa Uranium Mill (Source Material License SUA-1358)

Dear Mr. Holonich:

I am writing on behalf of Envirocare of Utah, Inc. ("Envirocare"), relative to a letter dated October 15, 1998 from International Uranium (USA) Corporation ("IUSA") to the U.S. Nuclear Regulatory Commission ("NRC") requesting an amendment to IUSA's Source Material License No. SUA-1358. By its license amendment request, IUSA seeks authorization to receive and "process" uranium-bearing material from the Ashland 1 Formerly Utilized Sites Remedial Action Program ("FUSRAP") site near Tonowanda, New York. The cleanup of this FUSRAP site is the responsibility of the Army Corps of Engineers. On November 3, 1998, the NRC published a "Notice of Receipt" of IUSA's License Amendment Application. 63 Fed. Reg. 59340.

Envirocare is licensed by the NRC to dispose of 11e.(2) by-product material at its disposal facility in Clive, Utah which was specifically designed and constructed for this purpose. Envirocare offers competitive prices in the market for the disposal of 11e.(2) material and has disposed of large quantities of such material, including FUSRAP waste. Envirocare is concerned that IUSA is planning to accept 11e.(2) material for disposal at its uranium mill tailings impoundments which were never intended for use as disposal facilities for large quantities of off-site material. As set forth below, this practice contravenes NRC policy. Envirocare hereby submits the following comments to the NRC's Federal Register Notice.

On September 15, 1995 the NRC published a uranium mill licensing guidance entitled "Final Position and Guidance on the Use of Uranium Mill Feed Material Other

Than Natural Ores," 60 Fed. Reg. 49296 ("the Guidance"). In order to receive NRC approval to process alternate feed materials at a licensed uranium mill, the Guidance requires the licensee to demonstrate that the feed material (1) satisfies the definition of "ore" as articulated in the Guidance, (2) does not contain a listed hazardous waste, and (3) is being processed primarily for its source-material content. By its request of October 15, 1998 IUSA seeks authorization to process at its White Mesa mill alternate feed material from the Ashland 1 site. However, IUSA's license amendment request does not address and satisfy the Guidance requirements. Putting aside the issues of whether this material is "ore" or whether it contains hazardous waste, IUSA's request fails to demonstrate that it will process the Ashland 1 feed material primarily for its source-material content. Thus, IUSA's request should be denied.

The Guidance provides that "[f]or the tailings and waste from the proposed processing to qualify as 11e.(2) byproduct material, the ore must be processed primarily for its source-material content." 60 Fed. Reg. 49297. This is a legal requirement based on the Atomic Energy Act, in order for the government to eventually take title to the tailings. The NRC must demand that the applicant submit credible evidence that the legal requirement is met in order to prevent an illegal situation in which "wastes that would have to be disposed of as radioactive or mixed waste would be proposed for processing at a uranium mill primarily to be able to dispose of it in the tailings pile as 11e.(2) byproduct material." *Id.* Indeed, as discussed below, the NRC Guidance was written to prevent exactly the situation presented by IUSA's license amendment request in this matter.

To determine whether the proposed processing is primarily for the source-material content, the Guidance provides two tests: the "co-disposal test" and "licensee certification and justification test." IUSA is unable to satisfy either test.

#### *The Co-Disposal Test*

To satisfy the co-disposal test, the Guidance requires that the licensee demonstrate that "the feed material would be approved for disposal in the tailings impoundment under the Final Revised Guidance of Non-Atomic Energy Act of 1954, Section 11e.(2) Byproduct Material in the Tailings Impoundments." *Id.* If the material would be approved for direct disposal under that guidance, the NRC can assume that the licensee will process the proposed material primarily for its source-material content.

The Final Revised Guidance on Disposal of Non-Atomic Energy Act of 1954, Section 11e.(2) Byproduct Material in Tailings Impoundments requires that in reviewing licensee requests for the disposal of wastes with radiological characteristics comparable to 11e.(2) byproduct material, the NRC must consider several factors, including whether the disposition of the material would be approved by the "Regional Low-Level Waste Compact" in the originating and disposal states and whether the Department of Energy ("DOE") or the disposal state concur with the NRC's "findings" and commit to take title to the tailings impoundment after closure. 60 Fed. Reg.

49296.<sup>1</sup> Moreover, that guidance requires a license amendment to be "supported with a staff analysis addressing the issues discussed in [the] guidance." *Id.* (Emphasis added.) IUSA has not addressed these requirements and no "staff analysis" has been prepared by the NRC.

Further, the NRC's guidance provides that "radioactive material not regulated under the AEA shall not be authorized for disposal in an 11e.(2) byproduct material impoundment." *Id.* at 49296. The NRC's approval of a prior license amendment request by IUSA for similar material from the Ashland 2 site indicated that that material was not regulated under the AEA. Although Envirocare disagrees with the NRC's analysis, the material that is the subject of this license amendment request, likewise, is "radioactive material not regulated under the AEA" and is not legally appropriate for direct disposal in IUSA's mill tailings impoundment under the NRC's guidance and regulations.

IUSA's request for a license amendment simply states - without any analysis or discussion of how IUSA has complied with the guidance requirements- that the Ashland 1 material meets the co-disposal test because the DOE has previously determined that the material meets the definition of 11e.(2) byproduct material under the Atomic Energy Act. (IUSA Amendment Request at p. 11.) Clearly, this statement alone does not satisfy the requirements of the co-disposal test. Moreover, no information or analysis of DOE's determination in this regard is available.

Significantly, the definition of 11e.(2) by-product material in Section 11 of the Atomic Energy Act relates only to its use in Sections 83 and 84 of the Act. Definitions do not create substantive law. They are merely devices to decide the content of other substantive provisions. If DOE were administering the FUSRAP program, arguably, it might be able to call the subject material 11e.(2) for the purpose of carrying out DOE functions under the Act - even though no DOE assigned provision of the Act uses the term "11e.(2) by-product material." However, under Title I of the Uranium Mill Tailings Radiation Control Act, this kind of material is "residual radioactive" material, and is not properly considered 11e.(2). Since this material is from the Army Corps of Engineers, more likely it should be treated as naturally occurring radioactive material ("NORM").

IUSA has not demonstrated that it has complied with the Guidance's requirement that, "the feed material would be approved for disposal in the tailings impoundment under the 'Final Revised Guidance on Disposal of Non-Atomic Energy Act of 1954, Section 11e.(2) Byproduct Material in Tailings Impoundments'" and its enumerated mandates. Finally, because the guidance itself requires the NRC to prepare a "staff analysis" and specifically address the issues discussed, the NRC cannot satisfy its guidance by relying solely on IUSA's representations.

---

<sup>1</sup> This requirement is due to the ultimate liability of DOE and/or the disposal state for this material.

### *Financial Justification Test*

Since IUSA has not satisfied the co-disposal test, IUSA must satisfy the "certification and justification test" which requires IUSA to (1) certify under oath "that the feed material is to be processed primarily for the recovery of uranium, and for no other primary purpose." and (2) justify the certification, with reasonable documentation, based on "financial considerations, the high uranium content of the feed material, or other grounds." 60 Fed. Reg. 49297. (Emphasis added.) Although IUSA has certified under oath that the Ashland 1 feed material is to be processed primarily for the recovery of uranium, other facts strongly suggest that disposal and not the recovery of uranium is the primary purpose behind IUSA's license amendment request.

In fact, IUSA represents that it will receive a substantial payment from the Army Corps of Engineers' prime contractor to accept the Ashland 1 material. This payment greatly exceeds the value of the uranium contained within the material.

IUSA attempts to support its claim that it is processing the Ashland 1 material for the "primary purpose" of "the recovery of uranium" by explaining that the payment it will receive is a "recycling fee" for extracting the uranium. In reality, this payment is a "disposal fee" that is to be paid to IUSA for the disposal of the Ashland 1 material, and it constitutes prima facie evidence that IUSA wants to perform "sham recycling." Further, according to the license amendment request, IUSA plans to retain all uranium produced from the material; it will not be returned to the generator. Certainly, from the Corps' perspective the primary reason this material would be shipped to IUSA is "disposal."

Envirocare believes that this is a clear case of a company seeking to do exactly what the NRC's Guidance is intended to avoid - "processing [of waste] at a uranium mill primarily to be able to dispose of it in the tailings pile as 11e.(2) byproduct material." *Id.*

Significantly, Earl Hoellen, President of IUSA, recently testified before the Senate Armed Services Committee that, processing and disposal of DOE materials as an alternate feed can be accomplished at the Mill at a cost that is substantially lower than other disposal options. Our experience has shown that doing so can result in cost savings anywhere from 20 to 80 percent compared to the historical costs of direct disposal.  
...we will take all you have got for \$100 a yard. Just send it on down, dump your trucks, we will take it right now...

(Oral Testimony of Earl Hoellen, Senate Armed Services Committee, September 3, 1998. Emphasis added.)

IUSA's license amendment request does not discuss in any detail the fee it will receive for the Ashland 1 waste. However, based on IUSA's prior experience with the Ashland 2 FUSRAP waste from the same site, Envirocare believes that IUSA will receive a fee of approximately \$100 per cubic yard for the 25,000 to 30,000 cubic yards of the Ashland 1 waste that IUSA estimates would be shipped to its mill. Thus, Envirocare believes that the total fee IUSA hopes to receive for accepting this material is approximately \$2.5 to \$3.0 million.

IUSA estimates that the Ashland 1 material contains an average of approximately .06 percent uranium. Even accepting IUSA's figures as accurate, IUSA admits that this percentage "is on the low end of the scale to justify hardrock mining and conventional milling today." (IUSA's Amendment Request at p. 9.) Moreover, Earl Hoellen recently testified under oath that from a variable cost perspective, it does not make economic sense to process uranium until the material contains an average of .15 to .2 percent uranium. (Deposition of Earl Hoellen, *Waste Control Specialists v. Envirocare of Texas*, at 147:20-148:25. Attached hereto as Ex. A.)

Assuming for the sake of argument that the 25,000 to 30,000 cubic yards of Ashland 1 waste has an average content of .06 percent uranium as asserted by IUSA, at a current uranium exchange value of approximately \$10.00 per pound, and assuming that IUSA recovers 100 percent of the available uranium and incurs absolutely no costs for the milling and extraction of the uranium, the total value of the uranium in the Ashland 1 waste is no more than about \$500,000. Thus, the fee IUSA will receive to dispose of this material is approximately \$2.0 to 2.5 million more than the value of the uranium in the material using the most beneficial analysis possible to IUSA.

More realistically, however, because the average uranium content of this material is closer to .04 percent, and because IUSA can not recover 100 percent of the uranium nor mill the material at no cost, it is likely that IUSA would make little or no profit on extracting uranium from this material. Thus, the real benefit to IUSA for receiving this material is the "fee" that will be paid on behalf on the Corps.

Based on these economic considerations alone, it is abundantly clear that, contrary to both IUSA's representations and the NRC's Guidance, the Ashland 1 material is being proposed to be processed by IUSA for the purpose of allowing IUSA to dispose of the material and not "primarily for the recovery of uranium." 60 Fed. Reg. 49297.

IUSA suggests that "financial considerations" support its assertion that milling the Ashland 1 material for its source-material content "provides a net benefit to IUSA." (IUSA Amendment Request, at p. 9.) The Guidance, however, requires IUSA to justify "with reasonable documentation" its certification. 60 Fed. Reg. 49297. Such

justification has not been provided. Indeed, IUSA's claim in this regard is based wholly on speculation and unfounded assertions. The NRC must ensure that the processing of the Ashland 1 material is "primarily for the recovery of uranium and no other primary purpose." *Id.* Accordingly, the NRC should require IUSA to provide detailed information as to its receipt of a disposal fee and detailed calculations with supporting documentation to substantiate its claim that it satisfies the terms of the Guidance.

The NRC's failure to require detailed characterization data, cost and fee data and supporting documentation and perform a meticulous review of such information will send a clear message that the NRC staff's administration of a Commission approved policy (the Guidance) is itself a sham.

In sum, IUSA's request for an amendment to its Source Material License SUA-1358 does not satisfy the terms of the NRC's Final Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores. IUSA has not satisfied the requirement that the material is being processed primarily for its source-material content. Accordingly, IUSA's license amendment request should be rejected by the NRC.

Please do not hesitate to contact me if you have any questions. Thank you.

Very truly yours,

  
Kenneth Alkema

Enclosures

cc: Chairman Shirley Jackson w/enclosures  
Commissioner Ed McGaffigan w/enclosures  
Karen Cyr, General Counsel w/enclosures  
Carl Paperiello, Director ONMSS w/enclosures  
Diane Nielsen, Director DEQ, State of Utah w/enclosures  
James R. Park, Uranium Recovery Branch

1 A. -- if this is true, this is the amount of  
 2 uranium that one would extract. The value of that  
 3 uranium at the market price today is 533 per cubic yard,  
 4 et cetera. And then they go about it and talk about the  
 5 value that's being paid overall.

6 From that perspective, I won't quarrel with  
 7 what they're saying in that regard.

8 Q. All right. Let me go a little further. And I  
 9 appreciate your answer. Look on the third page there  
 10 that has the little chart in the middle of it.

11 A. Uh-huh.

12 Q. Right below that, he says, "Of the data  
 13 presented in the table above, as I have mentioned, the  
 14 best estimate of material destined for the White Mesa  
 15 Uranium Mill is provided in the second row. This  
 16 material has an average U238 weight percent of 0.017."

17 Do you disagree with that?

18 A. Yes.

19 Q. Okay. Do you know what -- what would be a  
 20 closer figure than the 0.017?

21 A. Yes. Again, as we've indicated, based on  
 22 our information, it was 0.05. And, in fact -- and  
 23 I think -- I think it appears in -- it might appear  
 24 in here.

25 I know that somewhere -- I don't know if it

1 MR. THOMPSON -- when you're taking random  
 2 samples like that. Statistically that's the point we  
 3 were making. It wouldn't hold up, this analysis under  
 4 statistically.

5 MR. MINTON: Right.

6 Q. (BY MR. MINTON) This -- the bottom paragraph  
 7 on page 3, which is talking about the price of  
 8 yellowcake --

9 A. Uh-huh, yes.

10 Q. -- do you know what the price for that is,  
 11 say, today? I mean, approximately, or last week,  
 12 anytime that -- the last time you --

13 A. The current quoted uranium exchange value this  
 14 past Monday, I believe, was also 10.50 per pound.

15 Q. I'm sorry, I was listening to my counsel  
 16 when you gave me that figure and I apologize.

17 A. I believe -- I believe the uranium exchange  
 18 weekly price just published this past Monday was also  
 19 10.50 per pound.

20 Q. Okay. At 0.05; does that make it -- (use the  
 21 word economically viable, where you would be doing it  
 22 for the primary purpose of getting the ore out under  
 23 the limited definition we're giving that. Do you  
 24 understand me?

25 A. Well, what you're saying is is the value -- is

1 was in Utah's petition or -- and I don't think it was  
 2 in here.

3 But somewhere along the line, I know that  
 4 there was data presented where -- what was it? It was  
 5 the initials -- there was a misinterpretation of the  
 6 initials, ND -- in any event, Envirocare read the data  
 7 and made an assumption that -- that this meant zero as  
 8 opposed to it was not determined; therefore, factored it  
 9 in, lowering the average grade overall. And I do not  
 10 remember where that was.

11 Q. I tell you what -- what that was, it's the  
 12 difference between what ND means. It's -- it's used  
 13 two different ways. Nondetermined is one and another  
 14 one was --

15 MR. MINTON: What was the other one?

16 MR. THOMPSON: Not detectable.

17 MR. MINTON: That's right, not detectable. Is  
 18 that right? Which is the proper --

19 MR. THOMPSON: It doesn't make any difference  
 20 really.

21 MR. MINTON: Okay.

22 MR. THOMPSON: I mean, you don't -- you don't  
 23 get an average out of the sample that you don't have  
 24 anything --

25 MR. MINTON: Right.

1 the market price applied to the value of the uranium  
 2 extracted per ton of ore in excess of the amount of  
 3 money required to process that ton of ore strictly from  
 4 a variable cost perspective --

5 Q. Yes, sir.

6 A. -- and the answer is no.

7 Q. Okay. So it's -- 0.05 won't get it either,  
 8 what, will, in your judgment? What --

9 MR. CARTER: 0.05 percent.

10 THE DEPONENT: Which is, basically, one pound  
 11 per ton. So out of a ton of ore -- out of a ton of  
 12 material processed, you're getting ten bucks.

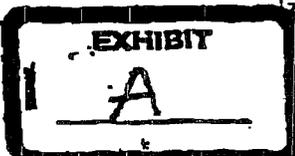
13 Q. (BY MR. MINTON) Right. And that won't get  
 14 you there?

15 A. Right.

16 Q. What -- what percentage would it get there?  
 17 This is just me curious. Maybe nobody will ever read  
 18 this part, but I'm just curious as to what you -- you,  
 19 obviously, are an expert in this area, what -- from the  
 20 finances, where would you get there, at what percentage?

21 A. I would say -- I would say, again, from the  
 22 perspective of strictly variable cost aspects, it would  
 23 be somewhere along the lines of .15 to .2, somewhere  
 24 in there --

25 Q. Okay. All right.



DOCKETED  
USNRC

David J. Jordan (Utah Bar No. 1751)  
Jill M. Pohlman (Utah Bar No. 7602)  
STOEL RIVES LLP  
One Utah Center, Eleventh Floor  
201 South Main Street  
Salt Lake City, Utah 84111-4904  
Telephone: (801) 328-3131

'98 DEC -7 P5:44

OFFICE OF THE  
GENERAL COUNSEL  
ADJUTANT GENERAL

Attorneys for Envirocare of Utah, Inc.

BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF	)	
INTERNATIONAL URANIUM (USA)	)	DOCKET NO. 40-8681
CORPORATION'S AMENDMENT TO	)	
NRC SOURCE MATERIAL LICENSE	)	NOTICE OF APPEARANCE
SUA-1358	)	
(Federal Register Notice: November 3,	)	
1998, Volume 63, Number 212)	)	
_____	)	

Notice is hereby given that the undersigned attorney enters an appearance in the above-captioned matter. In accordance with 10 C.F.R. § 2.713(b), the following information is provided:

Name:	Jill M. Pohlman (Bar Number 7602)
Address:	Stoel Rives LLP 201 South Main Street, #1100 Salt Lake City, Utah 84111-4904
Telephone:	(801) 328-3131
Facsimile:	(801) 578-6999
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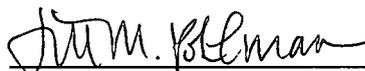
NOTICE OF APPEARANCE - 1

Admissions: United States District Court for the District of Utah  
Utah State Courts

Name of Party: Envirocare of Utah, Inc.  
46 West Broadway, Suite 240  
Salt Lake City, Utah 84101  
(801) 532-1330

DATED this 3 day of December, 1998.

STOEL RIVES LLP



David Jordan

Jill M. Pohlman

Attorneys for Envirocare of Utah, Inc.

DOCKETED  
USMRC

**CERTIFICATE OF SERVICE**

'98 DEC -7 P5:44

I hereby certify that I caused the original and two copies of the **Notice of Appearance** to be mailed, postage prepaid, this 3 day of December, 1998 to the following:

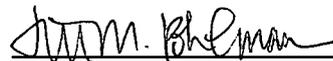
Secretary, U.S. Nuclear Regulatory Commission  
Attn: Rulemakings and Adjudications Staff  
Washington, DC 20555-0001

and a true and correct copy of the foregoing **Notice of Appearance** to be mailed, postage prepaid, this 3 day of December, 1998 to the following:

Rulemakings and Adjudications Staff of the  
Offices of the Secretary  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

International Uranium (USA) Corporation  
Independence Plaza, Suite 950  
1050 Seventeenth Street  
Denver, CO 80265

Executive Director of Operations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

  
\_\_\_\_\_

DOCKETED  
US NRC

'98 DEC -7 P5:44

David J. Jordan (Utah Bar No. 1751)  
Jill M. Pohlman (Utah Bar No. 7602)  
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Salt Lake City, Utah 84111-4904  
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OFFICE OF THE  
REGISTERED  
ADJUTANT GENERAL

Attorneys for Envirocare of Utah, Inc.

BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF	)	
INTERNATIONAL URANIUM (USA)	)	DOCKET NO. 40-8681
CORPORATION'S AMENDMENT TO	)	
NRC SOURCE MATERIAL LICENSE	)	NOTICE OF APPEARANCE
SUA-1358	)	
(Federal Register Notice: November 3,	)	
1998, Volume 63, Number 212)	)	
_____	)	

Notice is hereby given that the undersigned attorney enters an appearance in the above-captioned matter. In accordance with 10 C.F.R. § 2.713(b), the following information is provided:

Name:	David J. Jordan (Bar Number 1751)
Address:	Stoel Rives LLP 201 South Main Street, #1100 Salt Lake City, Utah 84111-4904
Telephone:	(801) 328-3131
Facsimile:	(801) 578-6999
E-mail:	djjordan@stoel.com

NOTICE OF APPEARANCE - 1

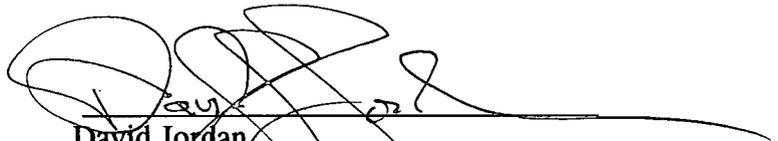
SLC1-44414.1 24875-0002

Admissions: Superior Court of the United States of America  
United States Court of Appeals for the Federal Circuit  
United States Court of Appeals for the 10th Circuit  
United States District Court for the District of Utah  
United States District Court for the District of Wyoming  
Utah State Courts  
Wyoming State Courts

Name of Party: Envirocare of Utah, Inc.  
46 West Broadway, Suite 240  
Salt Lake City, Utah 84101  
(801) 532-1330

DATED this 3 day of December, 1998.

STOEL RIVES LLP

  
David Jordan  
Jill M. Pohlman  
Attorneys for Envirocare of Utah, Inc.

DOCKETED  
USMPC

**CERTIFICATE OF SERVICE**

'98 DEC -7 P5 :45

I hereby certify that I caused the original and two copies of the **Notice of Appearance** to be mailed, postage prepaid, this 3 day of December, 1998, to the following:

Secretary, U.S. Nuclear Regulatory Commission  
Attn: Rulemakings and Adjudications Staff  
Washington, DC 20555-0001

and a true and correct copy of the foregoing **Notice of Appearance** to be mailed, postage prepaid, this 3 day of December, 1998 to the following:

Rulemakings and Adjudications Staff of the  
Offices of the Secretary  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

International Uranium (USA) Corporation  
Independence Plaza, Suite 950  
1050 Seventeenth Street  
Denver, CO 80265

Executive Director of Operations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

  
\_\_\_\_\_



# NAVAJO UTAH COMMISSION

P. O. Box 570 Montezuma Creek, Utah 84534-0570 Voice: 801-651-3461 Fax: 801-651-3451

Clarence Rockwell, Executive Director David Laughter, Chairperson Emerson Jackson, Vice-Chairperson

DOCKETED  
11:51 PM

OFFICE OF THE  
ADJUDICATOR  
98 DEC 7 9 54 AM

November 21, 1998

Honorable Secretary  
Attention: Rulemakings and Adjudications Staff  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

**Subject: International Uranium (USA) Corporation Amendment Request of October 15, 1998**

Honorable Secretary:

We understand that International Uranium (USA) Corporation has made a request of NRC to amend its Source Material License No. SUA-1385 in order to receive waste materials from the Ashland 1 and Seaway Area D FUSRAP sites near Tonawanda, New York.

The Navajo Utah Commission of the Navajo Nation Council of San Juan County, respectively request that a full hearing be held and that we be allowed to respond to this Amendment Request.

The Navajo Utah Commission is officially recognized as a local governing body designated by the Intergovernmental Relations Commission (IGR) of the Navajo Nation Council by Resolution No. IGRJN-134-92 with the authority to review all matters effecting the communities in the seven chapter areas of Utah, making appropriate recommendations to, and requests of, the Navajo Nation and other pertinent agencies.

Any exposure to nuclear waste poses extreme hazard to human health and the human environment. The transportation through Utah and processing of such product presents a risk to the citizens of the State of Utah which includes the residents of the Navajo Nation.

The public, including ourselves, have not been fully advised of the dangers of this hazardous waste material. There has been little environmental information given to us and the citizens by NRC or the International Uranium Corporation regarding the acceptance of hazardous waste from Tonawanda.

Public hearings or meeting have not yet been held on the Navajo Reservation to inform our people of the intent of International Uranium Corporation and the Nuclear

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COMMISSIONERS: Mark Maryboy David John Walter Atene Edward Tapaha Victor Joe, Jr.

U.S. NUCLEAR REGULATORY COMMISSION  
RULEMAKINGS & ADJUDICATIONS STAFF  
OFFICE OF THE SECRETARY  
OF THE COMMISSION

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Navajo Concerned  
Citizens, Ken Sleight,  
A. Thompson

Regulatory Commission (NCR) to enter into another amended agreement allowing the processing of such material from the Ashland 1 "alternate uranium mill feed byproduct material".

Past actions, regarding radiation problems, have been taken without our input even though we are an instrumental stakeholder. We had no input on the initial Environmental Impact Statement or succeeding environmental documents. We have not yet had the opportunity to meet with NRC or the State regarding the present license amendment process.

Executive Order 12898 clearly addresses the need for federal agencies to address the human health and environmental conditions in minority communities. "Fair treatment means that no group of people including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative health and environmental consequences resulting from industrial, municipal and commercial operations or the execution of federal, state, local and tribal programs and policies."

Research shows that Utahns, in particular the Navajo residents of Utah, have suffered a legacy of death and illness as a result of participation in and exposure to the nation's nuclear programs.

Therefore, as per our Resolution of July 9, the Navajo Utah Commission opposes the transportation and placement for processing of nuclear waste material and all other radiation-containing byproducts at the International Uranium Corporation Mill in Blanding, Utah.

The Navajo Utah Commission urges federal, state and local jurisdiction agencies to engage in an immediate effort to stay the above-named entities from shipment of any further nuclear waste material into the state of Utah for processing. Further, that public input and approval for each endeavor be sought prior to engaging in such activity.

The hauling and dumping of additional nuclear waste at the White Mesa Mill would be highly detrimental to us. Cumulative amounts of radiation must be taken into account, for our own and other's concerns, before adding yet another source of radiation in the form of radioactive material brought in from Tonawanda, New York.

Many of our people have died and have become ill over the years due to radiation exposure. Many have lost love ones due to a multitude of ills including cancer, leukemia, and related ailments.

Our people have been exposed to radiation from working in uranium mines, and having been exposed to fallout from atmospheric nuclear weapons testing conducted in Nevada.

The US Government bought the uranium ore, and it knew that uranium mining caused health effects, but it did not warn the people. For this reason, our government has a special obligation to the Navajo people and other people who were so exposed.

With the absence of important information, it is not possible to adequately assess the health problems that may arise. With the lack of information comes increasing costs to our people.

Without adequate information provided to county residents by NCR, concerning the environmental effects, there is a growing FEAR of nuclear waste and the prospects of a nuclear waste dump in our community. This fear and anquish, valid or not, directly affects our physical and mental health and the well-being of each of us.

The request is submitted within the thirty days from the date of the proceedings announcement in the Federal Register of November 3, 1998.

We feel that the previous material shipped from the Ashland 2 site from near Tonawanda does contain extremely hazardous waste of which we have not yet been fully informed.

We have great concern in that an environmental review was not performed pertaining to the previous Amendment Request on the Ashland 2 material.

Because no environmental review was accomplished at that time a new review should be accomplished regarding this new Ashland 1 amendment request. Because of new impacts and evidence, a supplementary environmental impact should also be prepared prior to any further waste acceptance at the White Mesa mill.

We understand that the Amendment Request of October 15, 1998 asks for permission to receive and process alternate fuel materials from the Ashland 1 site for its source-material content. But we feel that this material will be accepted primarily for storage and disposal purposes.

We ask that International Uranium's Amendment Request not be approved. Furthermore, we request that NCR support our community's right to know about nuclear waste, chemical risks, and impacts to our environment.

We request an opportunity to made an appearance to submit these concerns and other documentation. Please also advise us of future proceedings relating to this matter.

Sincerely,



Clarence Rockwell, Executive Director  
NAVAJO UTAH COMMISSION

cc: International Uranium (USA) Corporation  
Executive Director for Operations  
U.S. Nuclear Regulatory Commission

REQUEST FOR PUBLIC HEARING FROM:  
Concerned Citizens of San Juan County  
PO Box 261  
Bluff, Utah 84512

DOCKETED  
USNR

'98 DEC -7 P5:51

TO:  
Office of the Secretary  
US Nuclear Regulatory Commission  
Washington, DC 20555  
Attn: Rulemakings and Adjudication Staff

OFFICE OF THE SECRETARY  
RULEMAKING AND ADJUDICATION  
STAFF

**DOCKET NO. 40-8681 - Application from International Uranium  
(USA) Corporation to amend NRC Source Material License No. SUA-  
1358**

Before Administrative Judge  
Peter B. Bloch, Presiding Officer

For the Nuclear Regulatory Commission  
Joseph J. Holonich, Chief  
Uranium Recovery Branch, Division of Waste Management  
Office of Nuclear Material Safety and Safeguards, Mail Stop TWFN 7-19  
U.S. Nuclear Regulatory Commission  
Washington DC 20555

Method of Transmittal:

Original copy by FedEx overnight on Dec. 1, 1998 to the  
Rulemakings and Adjudications Staff, Office of the Secretary, NRC.

Dear Sir/Madame and Mr. Holonich,

Pursuant to the public notice of November 3, 1998 in Federal Register 59340 (Vol. 63, No. 212) and to the requirements of 10 CFR Part 2, Subpart L, §2.1205(a), (c), et al. (requirements for hearing and petition to intervene) and §2.1211 (requirements for limited appearance), the group called Concerned Citizens of San Juan County, Utah, hereby requests a public hearing on the application of International Uranium Corporation (IUC) to amend its NRC license for processing uranium-bearing material at White Mesa Mill in Blanding, Utah.

Although Concerned Citizens believes that similar areas of concern apply to all past and future impoundments of alternate feed materials at White Mesa Mill, the matter under immediate question, as per FR notice, is the licensing of IUC to process materials from Ashland 1 and Seaway Area D Formerly Utilized Sites Remedial Action Program (FUSRAP) sites near Tonawanda, New York.

## STANDING TO INTERVENE IN THE LICENSING PROCEDURE

Concerned Citizens of San Juan County include residents throughout the county and in the small nearby town of Bluff, Utah (pop. approx. 290), which is 18 miles down-gradient from the White Mesa Mill. Many of our homes and businesses are located along the San Juan River and next to Cottonwood Wash, a major drainage that we share with the mill. This wash drains into the San Juan, a major tributary to the Colorado River, which provides water to many western states, including Nevada, Arizona, and California.

Concerned Citizens are involved in health and safety issues that affect our community, children, and future generations in southern Utah. The group works closely with representatives of the Navajo Tribal Council, the Utah Navajo Commission, and others interested in sustainable local economies and land uses that depend on agriculture, tribal and national parks and other public lands. Many county businesses depend on clean water and air, a rich cultural heritage, and escape from industrialization – all of which are compromised by the continued import of nuclear waste into the area.

Concerned Citizens of San Juan County are directly and adversely affected by the ongoing and proposed operations at White Mesa Mill. The impoundment of radioactive waste at the mill causes injury in fact to the people and economy of this community, which, by virtue of contiguous local hydrology and geography, shares a common drinking water resource with the uranium mill. (See Figure 1 in Attachments.). From this aquifer the community of Bluff draws 18-20 million gallons of water per year metered, plus unmetered wells for a total of about 30-40 million gallons per year moving through the system. As “downstreamers,” we are also highly vulnerable to contamination of surface and near-surface waters.

**NRC and its licensee, IUC, and the State of Utah and County of San Juan have failed to demonstrate adequate protection of public water sources from the impoundment of radioactive tailings at White Mesa Mill.** An evidentiary hearing will show that the communities are poorly served by placing responsibility for water quality under the aegis of a private corporation (IUC) and NRC, an agency that is compromised by its interests in uranium recovery and waste management.

### AREA OF CONCERN: WATER RESOURCES

The following memo describes the water resources in question.

### Memorandum of Information

Re: Operations at the White Mesa Mill and relationship to Bluff's water supply 11/30/98,  
by Gene M. Stevenson (Certified Professional Geological Scientist #6232)  
& Bluff Water System Manager

Location (see Figure 1 in Attachments):

Bluff - sec 25-T40S-R22E at average elevation of 4320' above sea level. San Juan River (a federal waterway) flows westward and is located immediately south of town. Bluff City bisected by south-flowing Cottonwood Wash.

White Mesa Mill - sec 28-33, T37S-R22E at average elevation of 5600' asl. Cottonwood Wash and tributaries located less than 1/2 mile west of millsite.

Bluff provides drinking water to the public and is recognized as a public water system (PWS) by the state of Utah Division of Drinking Water (DDW) and the federal government under the Federal Safe Drinking Water Act amended and signed into law by President Clinton in 1996. As a PWS, Bluff must comply with all state and federal rules for drinking water safety as delineated in State of Utah Rule R309-113 of the Utah Administrative Code, including having an approved Drinking Water Source Protection (DWSP) Plan in operation by December 31, 1998. Additionally, Bluff must comply with various water sampling requirements set forth by the State of Utah Department of Environmental Quality, Division of Drinking Water. Sampling includes: bacteriological, lead & copper (inorganics & metals), nitrates, Volatile Organic Compounds (VOC's), and radionuclides. Any violations in sampling procedures, or results indicating above baseline standards considered as "safe" (maximum contaminant levels - MCL's) will result in Bluff's water considered as non-compliant and unauthorized by the State as safe drinking water for public consumption.

The White Mesa Mill processes uranium and more recently has been accepting out-of-state 11e(2) radioactive waste from sites from eastern states. Currently, the mill is owned and operated by the International Uranium Corporation (IUC and/or IUSA). Because the mill is licensed by the U.S. Nuclear Regulatory Commission (NRC) the mill does not have to comply with any state water quality requirements.<sup>1</sup>

Bluff's sole source of drinking water comes from four (4) wells drilled into the Navajo Sandstone aquifer. Water used at the White Mesa mill comes from five (5) wells drilled through the same aquifer. The Navajo Sandstone aquifer is huge, covering a large portion of

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<sup>1</sup> Letter from David C. Frydenlund, Vice President and Counsel, IUC, to William J. Sinclair, Director, Division of Radiation Control, Utah State Dept. of Environmental Quality. October 31, 1998.

southeastern Utah and northeastern Arizona. In the Bluff-White Mesa area, the Navajo Sandstone aquifer can be classified as a confined aquifer as long as an upward hydraulic gradient is maintained (i.e., the wells are "artesian" and water flows to the surface). Overpumping can cause a loss of upward hydraulic gradient such that surface or near-surface contaminants can enter the aquifer. Therefore, it is important to manage wells performance to avoid a reversal of gradient.

Bluff is located 18 miles down-gradient (south) of the White Mesa mill. The gradient for surface and near-surface waters is approximately 75 ft per mile and the hydraulic gradient for water in the Navajo sandstone aquifer is calculated at approximately 46 ft per mile (see attached map & Avery, 1986, figure 14). Any pollutants, potential pollutants, or future potential pollutants to the Bluff PWS must be delineated in the community's DWSP plan.

Chemical analyses of the community water wells in Bluff show trace amounts of heavy metals well below MCL cut-off amounts. Conversely, chemical analyses from wells dated from 1994 (the last time IUC submitted analyses to the State DEQ) at the White Mesa mill show heavy metals (particularly lead) at as much as **6.533 times** the MCL amounts as considered safe for human consumption. (See attachments: water analyses for Bluff water wells and White Mesa Mill wells). **These extreme measurements of heavy metals from wells in the White Mesa mill site strongly suggest that upward hydraulic gradients have not been maintained at the mill, and that a strong probability exists that that Navajo sandstone aquifer has been, or is still being contaminated. Unfortunately, the state DEQ has been denied any follow up to these analyses, as the mill now claims "federal preemption."** <sup>2</sup>

Furthermore, a technical glitch in classification of water users by the State of Utah Department of Environmental Quality still does not require the mill to regularly test for radionuclides in the well water, even though the processing of radioactive ores and byproducts is the sole purpose of the mill's function. It is absolutely ludicrous that Bluff must test its water for radioactive elements because we are a public water system, and yet a mill/dump site that specializes in radioactive substances doesn't have to perform the same tests on water pumped from the same aquifer.

It is apparent that the White Mesa mill operation is hiding behind the regulatory brick wall constructed by the NRC with little regard to freedom of information or human health. As "downwinders" many Utah citizens were the recipients of the federal government's negligence and arrogance in the 1950s. As "downstreamers" we here in Bluff and vicinity are now the future recipients of this same attitude in the next decades. We find that it is utter folly that these very dangerous pollutants are not regulated by an agency dedicated to environmental

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<sup>2</sup> Ibid.

and public safety. We find that the NRC's role as a monitoring agency may be substantially compromised in dealing with potential groundwater contamination of the region. We suggest that pollution of our shared waters stop immediately before the aquifer is permanently condemned due to this lack of foresight.

[End memo]

#### SUMMARY

- 1) Bluff shares the same aquifer with White Mesa Mill, an aquifer that is the sole supply of drinking water for the town and its environs.
- 2) We are irrefutably downstream of what is becoming a significant repository of nuclear waste.
- 3) Because of the proximity of White Mesa Mill and Bluff (18 miles down gradient), and the hydraulic profile for the Navajo Sandstone aquifer, pollutants from the mill will eventually reach Bluff's public water supply, the San Juan River, and downstream populations in the Colorado River Basin.
- 4) The changing nature of White Mesa Mill's operations, including the proposed license amendment, escalates this threat to community health and livelihoods, which depend predominantly on tourism, recreation, and small business.
- 5) Baseline data on surface/near-surface water quality at the mill are lacking, despite the known presence of seeps and springs in the mill vicinity and the obvious movement of waterborne (surface/subsurface) pollutants downgradient. The groundwater underlying the area is used for agriculture and livestock and thereby enters the food chain. The open tailings ponds pose a potential threat to wildlife. These factors indicate areas of impact that are not confined to the Navajo Sandstone aquifer.
- 6) Documented pollution of White Mesa Mill wells already shows heavy metals (specifically lead, a byproduct of uranium milling and mining operations) at levels greater than those considered safe for human consumption.
- 7) The present and potential water pollution is cause for serious concern, for three reasons: The test showing high levels of lead pollution was taken in 1994, before the change in the mill's operations and the impoundment of FUSRAP materials from New York. The increased volume of uranium tailings and the uncertain content of alternate feed materials will exacerbate this contamination. Second, as a federally licensed facility, the mill is exempt from the Utah Water Quality Act and is not

required to apply for a Utah groundwater discharge permit. Finally, IUC rather than an independent entity performs the water sampling. In short, our drinking water is monitored by the polluter and regulated by the overseer of a nuclear industry rather than by an environmental health agency.

- 8) Although the materials sent to Utah from the FUSRAP sites are defined as 11e(2) uranium byproduct materials, they are not subject to NRC regulation until they are received by IUC in Blanding. They are not subject to NRC jurisdiction during transport.<sup>3</sup> Inspection/regulation may occur only after the material is impounded in the local watershed. Such uncertainty regarding the handling of nuclear waste materials does not adequately ensure public safety.
- 9) **We can find no rigorous plan, from IUC or NRC, or from the State of Utah or San Juan County, to protect the water quality in the White Mesa area, White Mesa Ute Reservation, Bluff, and the San Juan River communities.** Considering the risks to the regional watershed from toxic nuclear materials and their known adverse effects on human health, San Juan County residents deserve a stricter, independent monitoring system and enforcement of water quality standards as well as data that are public, published locally, and cross-sampled by the State Dept. of Environmental Quality.

In summary, evidence of injury is shown through endangerment of the local aquifer and other water resources and the lack of basic environmental regulations to safeguard our community. **As a public water supplier, the town of Bluff cannot fulfill its legal obligation to protect the public from an unprotected source of water contamination.**

The effects of low-level radioactive waste are slow but long term. Future generations in San Juan County will likely inherit the most serious water problems. To bequeath them an unhealthy, possibly unusable water source is unconscionable.

#### AREA OF CONCERN: COMPOUNDED & CONTINUED LOCAL EXPOSURE TO RADIOACTIVE WASTE

Since the White Mesa Mill came to San Juan County, its operations have changed significantly. Emphasis has shifted from small-scale, primary-source uranium milling to FUSRAP sites and profits gained from impounding thousands of cubic yards of nuclear waste. The

<sup>3</sup> NRC Memo to IUC, June 23, 1998, p. 1 and NRC *Technical Evaluation Report: Request to Receive and Process Ashland 2 FUSRAP Materials*, June 23, 1998, p. 6.

sources are substantial: of all categories of nuclear waste, uranium tailings constitute the largest volume, about 27 million tons. The tailings constitute 99% of the original mass used to extract uranium ore and 85% of the radioactivity.<sup>4</sup>

An increase in tailings volume means greater local exposure to radioactive materials (uranium, radon gas, thorium), arsenic, lead, iron, manganese, vanadium, and other metals. This exposure is neither isolated nor limited; it must be added to existing, elevated dangers from nuclear waste throughout the region.

The southern San Juan County communities lie within a 60-mile radius of four major uranium tailings repositories or Superfund cleanup sites, all of them located in the San Juan River watershed: Monticello, a U.S. Department of Energy (DOE) UMTRA/Remedial Action Program site 47 miles upstream, with drainage into the San Juan River via Montezuma Creek east of Bluff; Mexican Hat/Halchita and Monument Valley (downstream); and the White Mesa Mill site (upstream). Within less than 170 miles are three more: Durango, Colorado, Shiprock, New Mexico (both upstream from Bluff), and Moab, Utah (Atlas Minerals).

During its cleanup at Monticello, the DOE acknowledged the cancer and other health risks associated with the mill tailings:

“The EPA [Environmental Protection Agency] and DOE have determined that, although the potential risk is small, the increase in risk to the public from exposure to uranium ore and tailings at Monticello is unacceptable. The cleanup is designed to reduce public exposure and to isolate this source of radiation to protect both human health and the environment now and in the future.”<sup>5</sup>

**An ever-increasing volume of uncapped tailings at the White Mesa Mill creates the same unacceptable health risk and incurs costly mitigation and cleanup, funded by taxpayer dollars.**

People in the Four Corners region are still dealing with a disproportionate share of the nuclear industry's 50-year legacy. In addition to Superfund sites are claims from Anglo and Navajo uranium miners under the Radiation Exposure Compensation Act (RECA), seeking damage from uranium-related effects on their health and the health of their families, and claims from uranium millworkers and others left out of RECA (legislation pending). By filing for bankruptcy, Atlas Minerals Corporation, charged with remediating the tailings site in Moab, has set a precedent for serious financial insecurity and has diminished public confidence in private or government responsibility. Citizens will likely pay the multimillion-dollar bill.

<sup>4</sup> The League of Women Voters Education Fund, *The Nuclear Waste Primer*, 1993, p. 124.

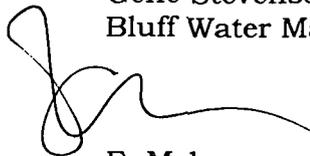
<sup>5</sup> U.S. DOE Fact Sheet, *Potential Health Hazards of Radiation*, August 1995.

**Expanding yet another sizable radioactive waste site at White Mesa, from imported rather than in situ sources, places an excessive and exorbitant economic, environmental, and health burden on a large portion of southern Utah.**

The Concerned Citizens of San Juan County believe that we have met NRC's requirements for filing this petition in a timely manner. We have demonstrated our standing for injury and we have defined areas of concern that should be resolved in an evidentiary hearing. Thank you for considering this petition.



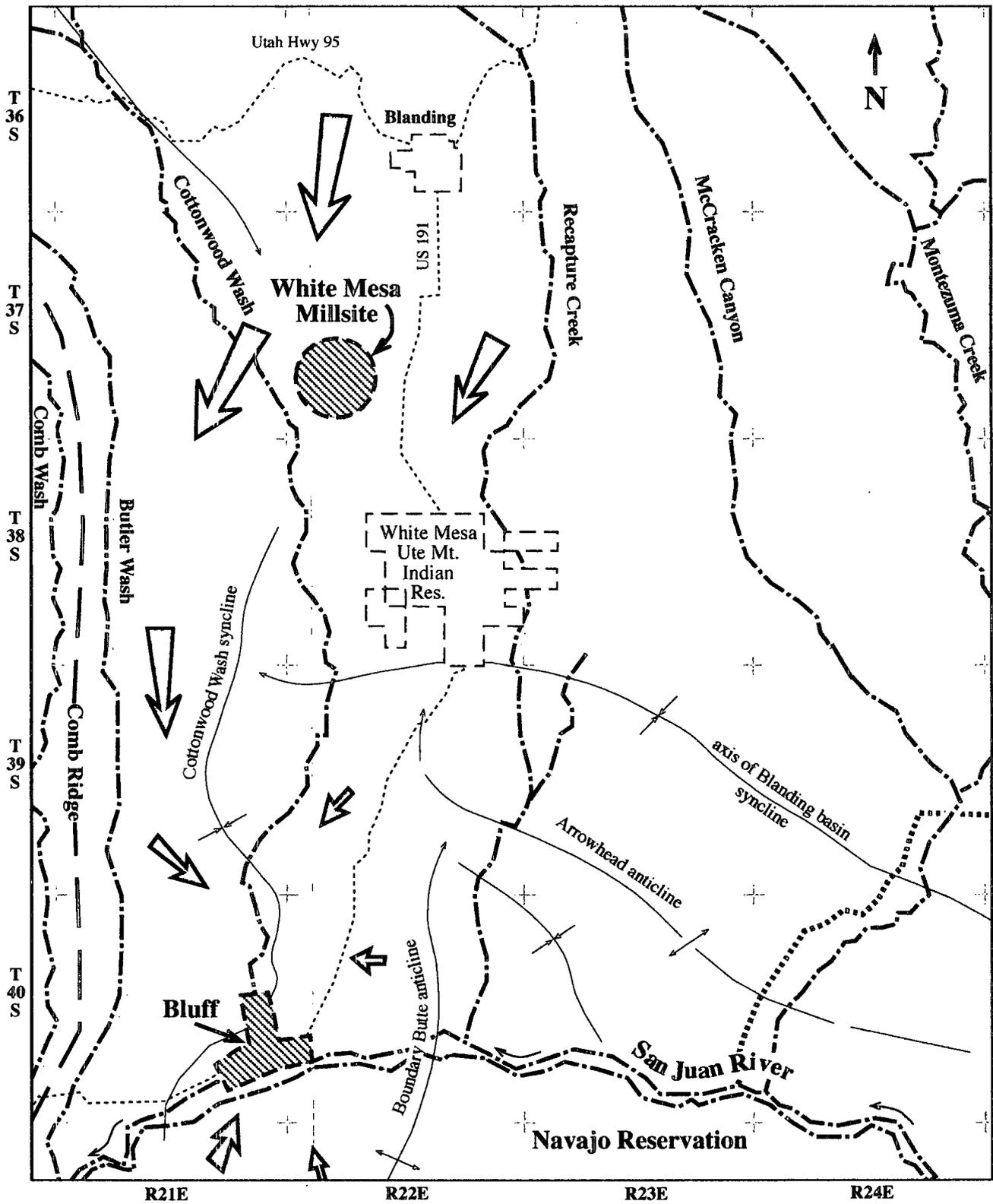
Gene Stevenson  
Bluff Water Manager



E. Meloy  
Clerk: Concerned Citizens of San Juan County  
December 1, 1998

Cc: International Uranium (USA) Corporation  
NRC Staff, Director of Operations  
Executive Director for Operations, NRC  
Governor Mike Leavitt  
William Sinclair, Director, Division of Radiation Control, Utah  
Dept. of Environmental Quality  
Rob Herbert, Hydrologist, Division of Radiation Control, Utah  
Dept. of Environmental Quality  
Kenneth Bousfield, Water Sampling Compliance Director, Division  
of Water Quality, Utah Dept. of Environmental Quality

**Figure 1: Map of a portion of San Juan County, Utah, showing proximity of the townsite of Bluff to White Mesa Mill. Shaded arrows show direction of ground water movement. (Larger arrow = dominant flow vector.)**



UTAH DIVISION OF DRINKING WATER  
11/30/98

CHEMICAL ANALYSIS

LABORATORY NUMBER: C942672

LABORATORY: STATE HEALTH

SYSTEM INFORMATION	SAMPLE COLLECTION	SAMPLING LOCATION	SEND REPORT TO
SYSTEM NAME: INTERNATIONAL URANIUM USA	DATE: 12/14/94	ENERGY FUELS WELL #5	ENERGY FUELS NUCLEAR
SYSTEM NO.: 19025	TIME: 16.00	AT WELLHEAD	P O BOX 749
SOURCE NO.: 05	BY: SCOTT SCHIERMAN		BLANDING UT
SOURCE TYPE: WELL	PHONE: 878-2221		94511

CATIONS		ANIONS		TOTAL METALS-CATIONS	
	MG/L		MG/L	MG/L	UG/L
AMMONIA AS N.	<0.2	BICARBONATE	226.	ARSENIC	36.0
ARSENIC		CARBON DIOXIDE	2.	BARIUM	0.13
BARIUM		CARBONATE	0.	CADMIUM	<1
BORON		CHLORIDE	1.	CHROMIUM	<5.0
CADMIUM		CO2 SOLIDS	111	COPPER	<20.0
CALCIUM	26.	FLUORIDE	121	IRON	2.60
CHROMIUM		HYDROXIDE	0.00	LEAD	98.0 *
CHROMIUM, HEX AS CR		NITRATE AS N	<0.02	MANGANESE	60.0
COPPER		SILICATE AS Si	<0.02	MERCURY	<0.1
IRON, DISSOLVED		PHOSPHORUS O AS P		NICKEL	<10.0
LEAD		SILICA, DIS. SiO2		SELENIUM	<1.0
MAGNESIUM	19.	SULFATE	18.	SILVER	<2.0
MANGANESE		TOT. ALK. AS CaCO3	105.	URANIUM	<2.00
NICKEL		T. SOLIDS CaCO3	175.5	ZINC	43.0
POTASSIUM	3	SURFACTANT AS MBAS		ANTIMONY	<3.0
SELENIUM		TURBIDITY	4.6	BERYLLIUM	<1.0
SILVER		SP COND UMNS/CM	377	TALLIUM	<1.0
SODIUM	12	TDS @ 180°C	206	CYANIDE	<50.0
ZINC					

SPECIAL WATER ANALYSIS

T. P. N.: PH. 8.3  
T. O. C.: <2.0

RADIOLOGICS  
UNITS: PCL/L-D

ALPHA, GROSS: <2 89 SR;  
BETA, GROSS: <11 131 I;  
TRITIUM, I M: 134 CS;  
226 RADIUM: 127 CS;  
228 RADIUM: OTHER:  
90 SR: OTHER:

REGULATED VOC CHEMICALS

PESTICIDES/PCB'S/SOC'S

PLEASE PRINT

Well # 1-70

Organic and Metals in Drinking Water  
for New Drinking Water Source  
(New EPA Requirements)

006327

THIS TEST IS FOR NEW SOURCES ONLY

Private Well

LAB NO: \_\_\_\_\_

WATER SYSTEM NO: \_\_\_\_\_

SOURCE NO: \_\_\_\_\_

COST CODE: \_\_\_\_\_

Water System Name: Bluff Culinary Water

Customer ID # \_\_\_\_\_

COLLECTED BY: K. Rasmussen

DATE COLLECTED: 9/6/05/14  
yy/mm/dd

TIME COLLECTED: 1600  
24HR. CLOCK

EXACT DESCRIPTION OF SAMPLING POINT: Well # 1-96

If Change of address is needed, indicate below:

Send Report To: Jones & DenMille ENGINEERING Phone No: (801) 896-8266

ADDRESS: 45 E 500 N CITY: Richfield STATE: UT ZIP: 84701

Send Bill To: SAN JUAN County Service AREA # 1 (Water Committee) Phone No: (801) 872-2243

ADDRESS: P.O. Box 310 CITY: BLUFF STATE: UT ZIP: 84512

BOTTLES REQUIRED

- One 1/2 GAL. CHEMISTRY      One 8oz. METALS      One 16oz. -NUTRIENT
- One 1/2 GAL. CYANIDE      One 8oz. plastic bottle marked - Color
- One 32oz. Brown Glass Bottle marked - Surfactant
- One 16oz. Brown Glass Bottle marked - Odor

Testing Parameters:      Type: 7 Drinking Water

1. These tests are run by Appointment Only. Contact the Lab for an appointment before collecting the Samples.
2. Samples must be kept cold, but not frozen, until they are delivered to the Laboratory.
3. Samples must be delivered to the Lab within 24 hours of the collection time.

Directions for collection of the sample are on the back side of this form.

A list of the individual compounds that are tested for using this method are listed on the back of the form.

If you have any questions about the collection of the samples or the testing methods and the cost, please contact the Sample Receiving Section using the information below:

FOR ASSISTANCE CALL 584-8459

STATE OF UTAH DEPT. OF HEALTH  
DIVISION OF LABORATORY SERVICES  
46 NORTH MEDICAL DRIVE  
SALT LAKE CITY, UTAH 84113

RICES SUBJECT TO CHANGE WITHOUT NOTICE

Date: 6/13/96

To: Jones & DeMille Engineering  
 Attn. Tristan DeMille  
 45 East 500 North  
 Richfield, UT 84701

Group #: 8334  
 Lab #: 96-U006327  
 Sample Desc: Bluff Culinary Water  
 Well #1-96

Date Sampled: 5/14/96  
 Date Submitted: 5/16/96

Time Sampled: 16:00  
 Time Received: 10:00

CERTIFICATE OF ANALYSIS

MCL  
 MAX.  
 Contaminant  
 LEVEL

PARAMETER

RESULT

MDL

DATE ANALYZED

METHOD

ANALYST

INORGANIC PARAMETERS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
Bicarbonate as HCO <sub>3</sub> , mg/L	195	1	6/10/96 13:15	SM 2320B	TH
Carbonate as CO <sub>3</sub> , mg/L	6	1	6/10/96 13:15	SM 2320B	TH
Alkalinity, Solids, mg/L	102	1	6/10/96 13:15	SM 2320B	TH
Hydroxide as OH, mg/L	< 1	1	6/10/96 13:15	SM 2320B	TH
Alkalinity, Total, mg/L	169	1	6/10/96 13:15	SM 2320B	TH
Carbon Dioxide, mg/L	146	1	6/10/96 13:15	SM 4500 D	TH
Chloride, mg/L	2	1	6/ 7/96 12:30	EPA 325.3	TM
Color, CU	25		5/16/96 14:40	EPA 110.2	TH
Conductance, Specific, umhos/cm	434	0.1	6/10/96 6:15	EPA 120.1	DI
Cyanide (T), mg/L	< 0.002	0.002	5/30/96 1:45	ASTM D2036	DI
Fluoride, mg/L	0.1	0.1	6/ 6/96 9:20	EPA 340.2	DI
Hardness, (calc), mg/L	12	1	5/23/96	CAL	EG
Mercury (T), as Hg, mg/L	< 0.0002	0.0002	5/22/96 11:36	EPA 245.1	KA
Methylene Blue Active, mg/L	0.19	0.05	5/17/96 8:00	EPA 425.1	JBK
Nitrate/Nitrite-Nitrogen, mg/L	< 0.04	0.04	6/ 7/96 8:00	EPA 353.1	JBK
Odor, TON 0	0		6/10/96 3:00	CAL	TH
pH, units	8.80	0.05	6/ 6/96 13:00	EPA 150.1	LS
Phosphorus, Ortho, mg/L	< 0.01	0.01	5/16/96 20:00	SM 4500	KA
Sulfate, mg/L	43	5	6/ 9/96 7:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	278	5	6/ 8/96 20:05	EPA 160.1	MO
Total Suspended Solids, mg/L	< 2.5	2.5	6/ 6/96 14:30	EPA 160.2	LS

\* SECONDARY DRINKING WATER STANDARDS  
 They are recommended limits,

which affect aesthetic quality

Approved By: 

Date: 6/13/96

To: Jones & DeMille Engineering  
 Attn. Tristan DeMille  
 45 East 500 North  
 Richfield, UT 84701

Group #: 8334  
 Lab #: 96-U006327  
 Sample Desc: Bluff Culinary Water  
 Well #1-96

Date Sampled: 5/14/96  
 Date Submitted: 5/16/96

Time Sampled: 16:00  
 Time Received: 10:00

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
2 INORGANIC PARAMETERS					
10 Turbidity, NTU	0.55	0.05	5/16/96 14:45	EPA 180.1	LS
2 Aluminum (T), as Al, mg/L	0.03	0.01	5/23/96 15:46	EPA 200.7	EG
- Barium (T), as Ba, mg/L	0.031	0.002	5/23/96 15:46	EPA 200.7	EG
4 - Beryllium (T), as Be, mg/L	< 0.0002	0.0002	5/23/96 15:46	EPA 200.7	EG
- Boron (T), as B, mg/L	0.06	0.01	5/23/96 15:46	EPA 200.7	EG
5 - Cadmium (T), as Cd, mg/L	< 0.001	0.001	5/23/96 15:46	EPA 200.7	EG
Calcium (T), as Ca, mg/L	3.57	0.02	6/13/96 15:50	EPA 200.7	MA
- Chromium (T), as Cr, mg/L	< 0.001	0.001	5/23/96 15:46	EPA 200.7	EG
Copper (T), as Cu, mg/L	0.003	0.002	5/23/96 15:46	EPA 200.7	EG
Iron (T), as Fe, mg/L	0.048	0.002	5/23/96 15:46	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	0.77	0.02	6/13/96 15:50	EPA 200.7	MA
Manganese (T), as Mn, mg/L	0.009	0.002	5/23/96 15:46	EPA 200.7	EG
Nickel (T), as Ni, mg/L	< 0.002	0.002	5/23/96 15:46	EPA 200.7	EG
Phosphorus (T), as P, mg/L	< 0.08	0.08	5/23/96 15:46	EPA 200.7	EG
Potassium (T), as K, mg/L	1.52	0.02	6/13/96 15:50	EPA 200.7	MA
Silicon Dioxide, mg/L	10.7	0.05	5/23/96 15:46	EPA 200.7	EG
Silver (T), as Ag, mg/L	< 0.002	0.002	5/23/96 15:46	EPA 200.7	EG
Sodium (T), as Na, mg/L	98.1	0.02	6/13/96 15:50	EPA 200.7	MA
Zinc (T), as Zn, mg/L	0.006	0.002	5/23/96 15:46	EPA 200.7	EG
Antimony (T), as Sb, mg/L	< 0.003	0.003	6/11/96 13:38	EPA 200.9	EG
Arsenic (T), as As, mg/L	0.015	0.005	5/20/96 19:50	EPA 200.9	EG

Approved By: 

Date: 6/13/96

To: Jones & DeMille Engineering  
 Attn. Tristan DeMille  
 45 East 500 North  
 Richfield, UT 84701

Group #: 8334  
 Lab #: 96-U006327  
 Sample Desc: Bluff Culinary Water  
 Well #1-96

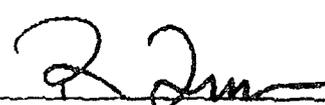
Date Sampled: 5/14/96  
 Date Submitted: 5/16/96

Time Sampled: 16:00  
 Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
<i>MCL</i> INORGANIC PARAMETERS					
0.015 Lead (T), as Pb, mg/L	< 0.005	0.005	5/23/96 20:00	EPA 200.9	EG
0.05 Selenium (T), as Se, mg/L	< 0.002	0.002	5/22/96 22:00	EPA 200.9	EG
0.002 Thallium (T), as Tl, mg/L	< 0.001	0.001	6/12/96 16:00	EPA 200.9	EG
Corrosivity, Langlier's, CI @20	C 0.04		6/13/96	CALC	RR

NOTE: Sample submitted on ice.

Approved By: 

Well # 2-96

Organic and Metals in Drinking  
Water for New Drinking Water Source  
(New EPA Requirements)

Order # 006328

PLEASE PRINT

THIS TEST IS FOR NEW SOURCES ONLY

Private Well

LAB NO: \_\_\_\_\_

WATER SYSTEM NO: \_\_\_\_\_

SOURCE NO: \_\_\_\_\_

COST CODE: \_\_\_\_\_

Water System Name: Bluff Culinary Water

Customer ID # \_\_\_\_\_

COLLECTED BY: K. Rasmussen

DATE COLLECTED: 9/6/05/14  
yy/mm/dd

TIME COLLECTED: 1620  
24HR. CLOCK

EXACT DESCRIPTION OF SAMPLING POINT: Well # 2-96

\*\*\*\*\*

If Change of address is needed, indicate below:

Send Report To: JONES & DENILLE ENGINEERING Phone No: (801) 896-8266  
ADDRESS: 45 E 500 N CITY: Richfield STATE: UT ZIP: 84701

Send Bill To: SAN JUAN COUNTY SERVICE AREA # 1 (Water Committee) Phone No: (801) 672-2243  
ADDRESS: P.O. Box 310 CITY: BLUFF STATE: UT ZIP: 84512

\*\*\*\*\*

BOTTLES REQUIRED

- One 1/2 GAL. CHEMISTRY      One 8oz. METALS      One 16oz. -NUTRIENT
- One 1/2 GAL. CYANIDE      One 8oz. plastic bottle marked - Color
- One 32oz. Brown Glass Bottle marked - Surfactant
- One 16oz. Brown Glass Bottle marked - Odor

Testing Parameters:      Type 7 Drinking Water

1. These tests are run by Appointment Only. Contact the Lab for an appointment before collecting the Samples.
2. Samples must be kept cold, but not frozen, until they are delivered to the Laboratory.
3. Samples must be delivered to the Lab within 24 hours of the collection time.

Directions for collection of the sample are on the back side of this form.

A list of the individual compounds that are tested for using this method are listed on the back of the form.

If you have any questions about the collection of the samples or the testing methods and the cost, please contact the Sample Receiving Section using the information below:

FOR ASSISTANCE CALL 884-8489

STATE OF UTAH DEPT. OF HEALTH  
DIVISION OF LABORATORY SERVICES  
45 NORTH MEDICAL DRIVE  
SALT LAKE CITY, UTAH 84113

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

Date: 6/13/96

To: Jones & DeMille Engineering  
 Attn. Tristan DeMille  
 45 East 500 North  
 Richfield, UT 84701

Group #: 8334  
 Lab #: 96-U006328  
 Sample Desc: Bluff Culinary Water  
 ✓ Well #2-96

Date Sampled: 5/14/96  
 Date Submitted: 5/16/96

Time Sampled: 16:20  
 Time Received: 10:00

## CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
<b>INORGANIC PARAMETERS</b>					
Bicarbonate as HCO <sub>3</sub> , mg/L	157	1	6/10/96 13:15	SM 2320B	TH
Carbonate as CO <sub>3</sub> , mg/L	14	1	6/10/96 13:15	SM 2320B	TH
Alkalinity, Solids, mg/L	91	1	6/10/96 13:15	SM 2320B	TH
Hydroxide as OH, mg/L	< 1	1	6/10/96 13:15	SM 2320B	TH
Alkalinity, Total, mg/L	151	1	6/10/96 13:15	SM 2320B	TH
Carbon Dioxide, mg/L	123	1	6/10/96 13:15	SM 4500 D	TH
Chloride, mg/L	3	1	6/ 7/96 12:30	EPA 325.3	TM
Color, CU	80		5/16/96 14:40	EPA 110.2	TH
Conductance, Specific, umhos/cm	445	0.1	6/10/96 6:15	EPA 120.1	DI
Cyanide (T), mg/L	< 0.002	0.002	5/30/96 1:45	ASTM D2036	DI
Fluoride, mg/L	< 0.2	0.2	6/ 6/96 9:20	EPA 340.2	DI
Hardness, (calc), mg/L	9	1	5/23/96	CAL	EG
Mercury (T), as Hg, mg/L	< 0.0002	0.0002	5/22/96 11:36	EPA 245.1	KA
Methylene Blue Active, mg/L	0.12	0.05	5/17/96 8:00	EPA 425.1	JBK
Nitrate/Nitrite-Nitrogen, mg/L	< 0.04	0.04	6/ 7/96 8:00	EPA 353.1	JBK
Odor, TON 0	0		6/10/96 3:00	CAL	TH
pH, units	9.20	0.05	6/ 6/96 13:00	EPA 150.1	LS
Phosphorus, Ortho, mg/L	0.01	0.01	5/16/96 20:00	SM 4500	KA
Sulfate, mg/L	42	5	6/ 9/96 7:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	286	5	6/ 8/96 20:05	EPA 160.1	MO
Total Suspended Solids, mg/L	< 2.5	2.5	6/ 6/96 14:30	EPA 160.2	LS

SECONDARY DRINKING WATER STANDARDS WHICH AFFECT AESTHETIC QUALITY. THEY ARE RECOMMENDED LIMITS.

Approved By: 



Date: 6/13/96

To: Jones & DeMille Engineering  
 Attn. Tristan DeMille  
 45 East 500 North  
 Richfield, UT 84701

Group #: 8334  
 Lab #: 96-U006328  
 Sample Desc: Bluff Culinary Water  
 Well #2-96

Date Sampled: 5/14/96  
 Date Submitted: 5/16/96

Time Sampled: 16:20  
 Time Received: 10:00

CERTIFICATE OF ANALYSIS

MCL

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
<b>INORGANIC PARAMETERS</b>					
5.0 Turbidity, NTU	2.50	0.05	5/16/96 14:45	EPA 180.1	LS
0.2 Aluminum (T), as Al, mg/L	0.04	0.01	5/23/96 15:46	EPA 200.7	EG
2 Barium (T), as Ba, mg/L	0.030	0.002	5/23/96 15:46	EPA 200.7	EG
0.006 Beryllium (T), as Be, mg/L	< 0.0002	0.0002	5/23/96 15:46	EPA 200.7	EG
Boron (T), as B, mg/L	0.05	0.01	5/23/96 15:46	EPA 200.7	EG
0.005 Cadmium (T), as Cd, mg/L	< 0.001	0.001	5/23/96 15:46	EPA 200.7	EG
Calcium (T), as Ca, mg/L	2.78	0.02	5/23/96 15:46	EPA 200.7	EG
0.1 Chromium(T), as Cr, mg/L	< 0.001	0.001	5/23/96 15:46	EPA 200.7	EG
1.3 Copper (T), as Cu, mg/L	0.003	0.002	5/23/96 15:46	EPA 200.7	EG
0.3 Iron (T), as Fe, mg/L	0.961	0.002	5/23/96 15:46	EPA 200.7	EG
Magnesium (T), as Mg, mg/L	0.61	0.02	5/23/96 15:46	EPA 200.7	EG
0.05 Manganese (T), as Mn, mg/L	0.033	0.002	5/23/96 15:46	EPA 200.7	EG
0.1 Nickel (T), as Ni, mg/L	< 0.002	0.002	5/23/96 15:46	EPA 200.7	EG
Phosphorus (T), as P, mg/L	< 0.08	0.08	5/23/96 15:46	EPA 200.7	EG
Potassium (T), as K, mg/L	2.62	0.02	5/23/96 15:46	EPA 200.7	EG
Silicon Dioxide, mg/L	7.69	0.05	5/23/96 15:46	EPA 200.7	EG
0.1 Silver (T), as Ag, mg/L	< 0.002	0.002	5/23/96 15:46	EPA 200.7	EG
Sodium (T), as Na, mg/L	83.9	0.02	5/23/96 15:46	EPA 200.7	EG
5 Zinc (T), as Zn, mg/L	0.007	0.002	5/23/96 15:46	EPA 200.7	EG
006 Antimony (T), as Sb, mg/L	< 0.003	0.003	6/11/96 13:38	EPA 200.9	EG
.05 Arsenic (T), as As, mg/L	0.005	0.005	5/20/96 19:50	EPA 200.9	EG

Approved By: \_\_\_\_\_

*[Handwritten Signature]*

Date: 6/13/96

To: Jones & DeMille Engineering  
 Attn. Tristan DeMille  
 45 East 500 North  
 Richfield, UT 84701

Group #: 8334  
 Lab #: 96-U006328  
 Sample Desc: Bluff Culinary Water  
 Well #2-96

Date Sampled: 5/14/96  
 Date Submitted: 5/16/96

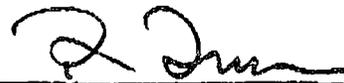
Time Sampled: 16:20  
 Time Received: 10:00

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
<i>MCL</i> INORGANIC PARAMETERS					
0.015 Lead (T), as Pb, mg/L	< 0.005	0.005	5/23/96 20:00	EPA 200.9	EG
0.05 Selenium (T), as Se, mg/L	< 0.002	0.002	5/22/96 22:00	EPA 200.9	EG
0.002 Thallium (T), as Tl, mg/L	< 0.001	0.001	6/12/96 16:00	EPA 200.9	EG
Corrosivity, Langlier's, CI @20 C	0.28		6/13/96	CALC	RR
Receiving Temperature, C	11	0	5/16/96 10:00		RCG

NOTE: Sample submitted on ice.

Approved By: \_\_\_\_\_



KEN SLEIGHT  
P.O. BOX 1270  
MOAB, UTAH 84532

(435) 259-8575

December 1, 1998

DOCKETED  
USNRC

'98 DEC -7 P5:47

OFFICE  
OF THE  
ADMINISTRATIVE  
ADJUTANT

TO:

Secretary  
Attention: Rulemakings and Adjudications Staff  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: International Uranium (USA) Corporation Amendment  
Request of October 15, 1998

I understand that International Uranium (USA) Corporation (IUC) has made a request of NRC to amend its Source Material License No. SUA-1358 in order to receive waste materials from the Ashland 1 and Seaway Area D FUSRAP sites near Tonawanda, New York.

As a citizen of San Juan County, I respectfully request that a full hearing be held and that I be allowed to respond to this Amendment Request. I have long been interested in nuclear waste matters and have testified before state agencies regarding them.

I also filed a petition to intervene in the hearing concerning the license amendment issued to International Uranium (USA) Corporation by the NRC that allows IUC to receive wastes from the Ashland 2 site in Tonawanda, New York.

My own interests are sure to be affected by the results of the proceedings. As a citizen and as a user of the lands in San Juan County, I am directly affected.

The hauling and dumping of such nuclear waste at the White Mesa mill would be highly detrimental to me and my own company.

I am a general partner in the firm, Pack Creek Ranch, a guest ranch catering to the tourist trade. I live in San Juan County at Pack Creek Ranch. Now 69 years of age, I have guided and outfitted wilderness-type trips in the region and in San Juan County professionally since 1955. I conduct horseback trail rides, pack trips, and other tourist excursions into varied regions of San Juan County. I hold permits issued to me by the National Park Service, the Forest Service and the Bureau of Land Management.

I travel the US-91 and U-95 highways often during by commercial and personal trips. I am directly and negatively affected by the increasing truck travel on U.S. 191 (Moab to White Mesa) by the hauling of nuclear waste material that originates in Tonawanda, New York.

U.S. NUCLEAR REGULATORY COMMISSION  
RULEMAKINGS & ADJUDICATIONS STAFF  
OFFICE OF THE SECRETARY  
OF THE COMMISSION

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Navajo, Concerned Citizens,  
Ken Sleight, A. Thompson

I am also an officer and stockholder of High Desert Adventures, a Utah corporation, headquartered in St. George, Utah. High Desert Adventures, as a National Park Service concessioner, conducts boating trips in Utah on the San Juan River and on Lake Powell. I have personally conducted trips on the San Juan River since the 1950's and this firm continues that legacy to this day.

As a citizen of San Juan County, I am concerned with my own health and that of my passengers. I am concerned that the cumulative amounts of radioactivity and other chemicals resulting from nuclear industry activities, over and above the high levels of naturally occurring radiation in the region, threatens my health and well being. I have lived in Southern Utah during the periods of the nuclear bomb tests and have directly experienced downwind radioactive fallout.

I and my passengers have occasionally camped near or on old uranium mines or tailings during river travel on the Green, Colorado, and San Juan rivers unknowing of the dangers. I and my passengers have drunk the rivers' waters and wallowed in the sands of the Green, Colorado and San Juan Rivers for years unknowingly to us that the rivers were heavily contaminated with radionuclides and other chemicals - we ceasing only after the National Park Service issued a directive that we should no longer use the waters for drinking purposes.

While at my office and bookstore I was, for years, exposed to the wind-swept clouds of dust radiating from the Atlas uranium mill tailings at Moab. Other threats can be documented.

These cumulative amounts of radiation must be taken into account, as for my own and others concerns, before adding yet another source of radiation in the form of radioactive material brought in from Tonawanda, New York.

The public, including myself, have not been fully advised of the dangers of this hazardous waste material. There has been little environmental information given to me and the citizens by NRC or the International Uranium Corporation regarding the acceptance of hazardous waste from Tonawanda. Few studies were accomplished as were required during the period of license amendments.

With the absence of important information, it is not possible to adequately assess the health problems that may arise. With the lack of information comes increasing costs to me and to our people.

Without adequate information provided county residents by NRC, concerning the environmental effects, there is a growing FEAR of nuclear waste and the prospects of a nuclear waste dump. This fear and anguish, valid or not, directly affects our physical and mental health and the well-being of each of us.

The health care system in San Juan County, in desperate straits at the present time, could not near afford the added costs that it might entail.

As a taxpayer in San Juan County and the state of Utah, the added burden by the government in regulating and overseeng nuclear waste problems would definitely cost me and other citizens much more than if there were no dump to be regulated.

And as an outfitter I am concerned with bringing in tourists from varied areas of the world only to subject them to the dangers of added radiation. As a moral issue, as in the case of polluted rivers, lands, or air, I must warn our visitors of such concerns. And the prospective customers' knowledge that there is an added risk, if they did come, would cause many to go elsewhere. This would hit my pocketbook and others in the travel industry. Our travel industry would suffer.

And as a member of the Utah Guides and Outfitters Association, I associate with an active group of outfitters who works for clean waterways and rivers and a clean environment. This group has taken a strong and costly stand against nuclear-based activities in the region. Continuing to increase health hazards, the costs will ultimately increase to all of the members, to myself, and to their customers.

This diminished quality would be detrimental to me personally, and other outfitters, as there would be a lessened demand for natural and wilderness-type travel which I engage in and promote. It would destroy the very thing the outfitters' customers are coming to see and experience . We can't afford to damage our own capital resource. For an effective and viable business, I am dependent upon the preservation of a clean, beautiful, and untarnished environment.

And furthermore, we can't afford to damage the very areas that people are coming to see and to experience. By desecrating such areas of scenic beauty, citizens of our country and of the world, and even myself as a citizen, would be deprived of San Juan County's full beauty and natural environment. A nuclear waste dump and increasing hauls of nuclear waste would adversely bring negative promotion to the region and detract from the region's attractiveness. This would cost me and others untold amounts.

This request is submitted within the thirty days from the date of the proceding's announcement in the Federal Register of November 3, 1998.

I feel that the previous material shipped from the Ashland 2 site from near Tonawanda does contain extremely hazardous waste of which we have not been informed. The material that was received, I believe, is not to be processed for its source-material content but received primarily for storage purposes.

I have grave concerns. An environmental review was not performed pertaining to the previous Amendment Request on the Ashland 2 material. The categorical exclusion should not have been applied.

Because no environmental review was accomplished at that time a new review should be accomplished regarding this new Ashland 1 amendment request. Indeed, because of new impacts and evidence, a supplementary environmental impact statement should be prepared prior to any further waste acceptance at the White Mesa mill. The reasons are documented in an addendum to this letter.

For reasons given, I feel that the Uranium Mill Feed Material Guidance standards and procedures have not been faithfully followed in the past.

I understand that the Amendment Request of October 15, 1998 asks for permission to receive and process alternate fuel material from the Ashland 1 site for its source-material content. But I feel that this material will be accepted primarily for storage and disposal purposes.

In any event, the disposal or recycling fees to be received by IUCA should not be calculated or included into the formula in determining potential revenue from the source-material content.

I ask that IUC'S Amendment Request not be approved.

Furthermore, I request that NRC support our community's right to know about nuclear waste, chemical risks, and impacts to our environment.

It is vitally important for our people in our county, and especially for people who live near the White Mesa mill, to know of all potential dangers and impacts that might be thrust upon us.

I request an opportunity to make an appearance to submit these concerns and other documentation. Please also advise me of future proceedings relating to this matter.

Sincerely,



Ken Sleight

cc: Secretary, NRC  
International Uranium (USA) Corporation

## ADDENDUM

There remains many questions yet to be answered. The previous License Amendment had been quickly approved by the Nuclear Regulatory Commission (NRC) without the necessary environmental review and full public participation. There was a very short time, less than two months, between the time of the application and its approval.

The company received approval from NRC to consider the radioactive waste as "ore" in order for the company to receive it. But only a small amount of uranium would be recovered and processed through its mill.

The uranium mill was only designed to process and recover uranium from conventional-type ores. The acceptance and processing of these other alternate feed materials had not even been considered when studies were being conducted and plans made to build the processing plant.

This means that upon acceptance of the material, International Uranium is performing "sham recycling" so it can store radioactive waste just as does northern Utah's Envirocare. The recoverable uranium content of the waste material cannot near support the cost of recycling the waste as ore.

The primary goal then of International Uranium is to receive the disposal fee, millions of dollars worth, which the corporation calls a "recycling fee."

The NRC approved the transaction in an unusual hurried order - even though in April 1998 the U.S. Army Corps of Engineers directed this material to be excavated and shipped offsite for disposal at an "appropriately licensed or permitted facility." The White Mesa mill has yet to be appropriately licensed.

The NRC is mandated to approve license applications on the basis of a set of guidance instructions. This "guidance list" addresses ten items that must be evaluated before making a determination that such material can be disposed in a tailings impoundment. Among them are such issues as the radiological nature of the material, existing regulation of the material, hazardous nature of the material, and a consideration of potential environmental impacts.

The NRC failed to fully follow these guidances in making this determination. It did not contact the State of Utah to determine if the state agreed to take title to the waste after closure. An evaluation of whether a waste "would be approved for disposal" was not accomplished.

Dianne R. Nielson, the executive director of the Utah State Department of Environmental Quality, stated that a policy decision which shifts "reprocessing" to "waste disposal in disguise" will trigger several issues - including the need for a state sighting

approval, a need for a license for waste disposal of these materials, the payment of appropriate waste disposal fees to the state, and the need for a state groundwater discharge permit." Pretty clear cut.

As the White Mesa mill has already been receiving alternate feed materials, legal or not, there is now increased interest by the nuclear industry across the nation to unload its stuff on facilities like White Mesa. Where will this ever stop? Is San Juan County now to be deluged with the nation's hazardous waste? Is it to become another Envirocare?

The revenue for accepting the waste for disposal or storage by the company has been estimated by some reviewers as upward to \$1.00 per cubic foot of material. This would amount to millions of dollars that would go directly to International Uranium.

The company would be the winner, the county the loser. None of this revenue would go the county even though it absorbs most of the costs of the impacts. And the huge radioactive pile would sit there through the centuries.

I request that an environmental review be prepared regarding the new license amendment on the Ashland 1 material. As no public comments on environmental matters were even asked for by the NRC before making its decision on the last license amendment, it is feared the agency might do the same on this one.

I request that a new Environmental Impact Statement be prepared. There are so many new factors - environmentally, culturally, and economic - that have not been previously addressed.

Upon reading the initial EIS report, prepared years ago, I find it most revealing. The processing plant was to be built exclusively for the processing of uranium ores, not for storage purposes alone. Many environmental factors were not considered and important stakeholders were not involved.

There are many concerns and needs that must be considered.

Ground water is of instrumental importance. We need to know what chemicals and minerals are tested. Little or no modeling has been done to adequately demonstrate the protection of valuable groundwater.

The company has not obtained a Utah Groundwater Quality Permit. In fact it refuses to obtain one. We need to know if leaks are possible and we need to know their possible long-term impacts to downstream users at the communities of White Mesa and Bluff. This information should be open to the public.

We need to know what leachate detection systems are in place, how often they are monitored, and a record of their results.

We need to know the effect on drinking water from pollution sources. The Ute people at White Mesa already need to carry water from Blanding for their own personal use. Testimony shows that the quality of their water is already bad.

And along with this, we need to know the hazards of blowing winds that carry chemically-coated sand and dust from from the dump site to the communities of San Juan County.

We need to know just how often NRC and State regulators are to be on the site to inspect the facility. We need to know just how this compares to the oversight responsibilities placed on Envirocare by NRC and the State. Will the White Mesa mill be regulated as tightly as Envirocare?

We need to know just how much money is in the surety and what the closure costs will be, and what is included when closure actually takes place.

We need to know the rationale in opening a nuclear waste dump in such a spectacular region of the nation. This canyon country, a very special place, qualifies as a World Heritage site based on its natural and cultural heritage. Many business firms, dependent upon the naturalness and beauty of the region and the tourist trade, would be adversely affected.

We need to recognize the Navajo and Ute concerns. These people have been left out of the process even though they have inhabited the region for many hundred of years. Even the initial EIS did not consider the people's cultural needs. The cultures and antiquities of the more recent historic period were not even considered. Obviously, their needs have not been met. There has been no environmental justice for them.

We need to determine to what extent cultural and archeological resources are threatened. The area, the White Mesa Archeological District, contains many burial sites and other sacred sites. Additional survey work needs to be done, and the effect on archeological sites need to be determined. The limited studies already done are not complete enough.

Because of the sacredness of these lands to the Indians, and as a legacy to all of us, this area must be responsibly protected. As some excavations took place during earlier development, these sites are of immediate concern. The Avikan site, nearby, is a very spiritual place.

Transportation of toxic and radiological material is of high concern. As the region is not immune to accidents, several questions must be answered. We need to ask whether state trucking regulations are adequate in reducing spills on Utah's highways.

We need to determine whether there is an overabundance of these shipments through Grand and San Juan Counties now. In years ahead,

such shipments may need to be further restricted or regulated. Emergency closures of traffic flow may be necessary along our narrow highway system. Ice and snow may be vital factors in winter months. The increase of truck traffic, intermeshed with increasing tourist traffic, will be a major problem especially for Moab.

There also is a need to place special identifying marks on all vehicles carrying toxic and radiological material. It needs to be determined whether emergency crews are available and are prepared to handle such accidents. The need to protect water sources and drainages are evident.

There are solutions.

The NRC should now intensively review the issuance of this new license amendment request. We need to step back now and look at the situation under a new light. We need a moratorium on any further waste acceptance.

We need to analyze the cumulative effect and amount of ores that have been shipped to the site since 1996. As citizens we need, and have a right to know, just how much ore has been processed each year and how much of that came from alternate feed materials. We need to know the remaining chemical and mineral makeup of the tailings.

There needs to be intensive discussion among all interested citizens and stakeholders before further licensing approvals are given. The NRC and the State must assure these people that they will be fully informed before it permits the acceptance of these materials.

NRC must also be questioned as to the appropriateness of allowing a company to review and decide on its own whether it can receive such materials based on NRC guidelines. The NRC and the State should be the agencies to decide the question - not the mill owners.

International Uranium should be prohibited from receiving any more waste material until the NRC has reviewed its past decisions. If it is shown that proper procedure was not followed, then the material already received at White Mesa should immediately be shipped to another site - a site that is appropriately licensed.

And above all, a new EIS needs to be completed. It's a matter of citizen rights and environmental justice.

*- Tom Sleight*

Pennsylvania Avenue, NW., Washington, DC 20506, or call 202/606-8322.

Nancy E. Weiss, Advisory Committee Management Officer. [FR Doc. 98-29311 Filed 11-2-98; 8:45 am] BILLING CODE 7530-01-M

NUCLEAR REGULATORY COMMISSION

[Docket No. 40-8681]

International Uranium (USA) Corporation

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of Receipt of License Amendment Application; Notice of Opportunity for Hearing.

SUMMARY: Notice is hereby given that the U.S. Nuclear Regulatory Commission (NRC) has received an application, by letter dated October 15, 1998, from International Uranium (USA) Corporation (IUC) to amend NRC Source Material License No. SUA-1358. By this submittal, IUC is requesting NRC approval to process, at IUC's White Mesa Uranium Mill, uranium-bearing material received from the Ashland 1 and Seaway Area D Formerly Utilized Sites Remedial Action Program (FUSRAP) sites, near Tonawanda, New York.

FOR FURTHER INFORMATION CONTACT: Mr. James R. Park, Uranium Recovery Branch, Mail Stop TWFN 7-J8, 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: On September 15, 1995, NRC published in the Federal Register staff guidance entitled, "Final Position and Guidance on the Use of Uranium Mill Feed Material Other Than Natural Ores" (60 FR 49296). Under this guidance, NRC-licensed uranium or thorium mills may process " \* \* \* natural or native matter that may be mined and treated for the extraction of any of its constituents or any other matter from which source material is extracted \* \* \*" subject to NRC approval. By this amendment application, IUC is requesting that it be allowed to process, at the White Mesa mill, alternate feed materials received from the Ashland 1 and Seaway Area D FUSRAP sites, located near Tonawanda, New York.

The materials in question at the Ashland 1 and Seaway Area D sites, which currently are being remediated by

the U.S. Army Corps of Engineers, are associated with uranium ore processing activities conducted by the Manhattan Engineering District during the mid-1940s. IUC states that the average uranium content of the materials is expected to be approximately 0.06 weight percent, and IUC estimates that a total of approximately 25,000 to 30,000 cubic yards of material would be shipped, over a three-to four-month period, to the White Mesa mill, near Blanding, Utah.

Activities at the White Mesa mill are authorized under NRC Source Material License No. SUA-1358. IUC's application to amend SUA-1358, which describes the proposed change and the reasons for the request, is 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 Operators Licensing Proceedings," of the Commission's Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders 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 Rulemakings and Adjudications Staff 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: Rulemakings and Adjudications Staff.

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

(1) The applicant, International Uranium (USA) Corporation, Independence Plaza, Suite 950, 1050 Seventeenth Street, Denver, CO 80265;

(2) The NRC staff, by delivery to the Executive Director of Operations, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, or

(3) 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 28th day of October 1998.

For the Nuclear Regulatory Commission. Joseph J. Holonich, Chief, Uranium Recovery Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 98-29432 Filed 11-2-98; 8:45 am] BILLING CODE 7530-01-P

NUCLEAR REGULATORY COMMISSION

Sunshine Act Meeting

AGENCY HOLDING THE MEETING: Nuclear Regulatory Commission.

DATE: Weeks of November 2, 9, 16, and 23, 1998.

PLACE: Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public and Closed.

MATTERS TO BE CONSIDERED:

Week of November 2

Monday, November 2

2:00 p.m.

Briefing on Reactor Oversight Process Improvements (Public Meeting) (Contact: Frank Gillespie, 301-415-1275)

3:30 p.m.

Affirmation Session (Public Meeting) (if needed)

Week of November 9—Tentative

Thursday, November 12

11:30 a.m.

Affirmation Session (Public Meeting) (if needed)

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